EDILTECO®
group

ISOLCAP

ready to use mortars for lightweight thermal insulating screeds and lightweight base screeds

THERMAL

Insulation & Chemicals Division

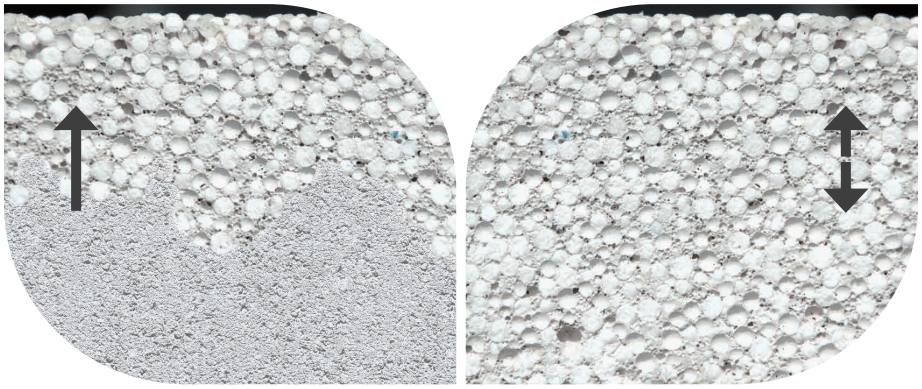
APPLICATION MANUAL . ISOLCAP RANGE

INDEX

THE TECHNOLOGY FOR THE USE OF AGGREGATES IN LIGHTWEIGHT MORTARS

The importance of the EPS beads mixed with Edilteco patented additive.
E.I.A. is the special additive that when applied onto the EPS virgin beads guarantees a perfect mixing of the EPS beads with cement and water. EPS is the best insulating material with the most cost effective performance. Due to the different specific weights it is almost impossible to mix EPS beads with cement since they tend to separate.
E.I.A. overcomes this problem: the mortar obtained is perfectly homogeneous and with high thermal insulating performances:

- Perfect mixing with water and binders;
- homogeneous distribution of the EPS beads in the mixing;
- perfect pumping capacity;
- elimination of bead flotation phenomenon.



MIXTURE WITH POLYSTYRENE NON-CORRECTLY MIXED
Non homogeneous distribution into the mix (bead flotation phenomenon).

MIXTURE WITH ISOLCAP RANGE PRODUCTS
Homogeneous distribution into the mix.

APPLICATION MANUAL . ISOLCAP RANGE

The preparation of this manual is a complex operation requiring many checks of the text, images and graphics. Experience teaches us that it is almost impossible to publish a manual flawlessly. Should you notice any errors during the reading of this manual, please inform us promptly. What is reported in the manual has to be intended as merely indicative and none guarantee can be given if not directly taken from certification and belonging to the workmanlike. All indication given are not binding for legal purposes. Recommendations as to methods, use of materials and construction details are given as a service to contractors and designers, on the basis of Edilteco's experience with the use of Isolcap Range. Any drawings are meant only to illustrate the various possibilities of applications and should not be taken as the basis for design. Since Edilteco as a material supplier, exercises no control over the installation of Isolcap Range, no responsibility is accepted for such drawings or recommendations. Edilteco's legal obligations in respect of any sale of Isolcap Range shall be determined solely by the terms of the respective sales contract. All data is derived from laboratory tests and is subject to change according to environmental conditions and work practices. The user is required to check the suitability of the product in accordance with the specific application, undertaking all liability implicit in and deriving from use of the product itself; moreover the operator has to respect all application instructions and safety advice, respecting all norms attributable to the good work practice. Edilteco has the right to change at its sole discretion and without any advice the content of the present manual. The present manual cancels and replaces any other previous version of any application manual of Isolcap Range, or any other Technical documents previously issued. The dissemination of this manual in any way, totally or even partially, is strictly forbidden without the authorization of Edilteco S.p.A.

PREMIXED MORTAR
ISOLCAP RANGE

BASE SCREEDS
LIGHTWEIGHT AND THERMAL INSULATING

ISOLCAP LIGHT 110
Ready to use, superlight thermal insulating base screed.

- Beads fine grain size ∅ 2 mm
- Binder pre-batched at 110 kg/m^3
- Volumetric mass dry mortar: 130 kg/m^3
- Thermal conductivity λ_D: 0,043 W/mK
- Compressive strength 28 days: 0,528 N/mm^2
- Moisture resistance: rotproof
- Permeability to water vapour μ = 5,1
- Bag: 70 L yield
- Yield: 14 bags = 1 m^3 of lightweight thermal insulating mortar.

λ_D = 0,043 W/mK

ISOLCAP 250
Ready to use, lightweight thermal insulating base screed.

- Beads grain size in curve ∅ 3 - 6 mm
- Binder pre-batched at 250 kg/m^3
- Volumetric mass dry mortar: 265 kg/m^3
- Thermal conductivity λ_D: 0,067 W/mK
- Compressive strength 28 days: 0,83 N/mm^2
- Moisture resistance: rotproof
- Permeability to water vapour μ = 6,9
- Bag: 70 L yield
- Yield: 13 - 14 bags = 1 m^3 of lightweight thermal insulating mortar.

λ_D = 0,067 W/mK

ISOLCAP FEIN 300
Ready to use, lightweight thermal insulating base screed with fine EPS beads, suitable also for single layer screed (direct application of the floor).

- Beads fine grain size ∅ 2 mm
- Binder pre-batched at 300 kg/m^3
- Volumetric mass dry mortar: 315 kg/m^3
- Thermal conductivity λ_D: 0,080 W/mK
- Compressive strength 28 days: 1,61 N/mm^2
- Moisture resistance: rotproof
- Permeability to water vapour μ = 7,2
- Bag: 70 L yield
- Yield: 13 - 14 bags = 1 m^3 of lightweight thermal insulating mortar.

λ_D = 0,080 W/mK

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ISOLCAP XX 500

Ready to use, lightweight thermal insulating base screed reinforced with fibres. High mechanical strength and high dimensional stability.

- Beads fine grain size Ø 2 mm
- Binder pre-batched at 500 kg/m^3
- Volumetric mass dry mortar: 515 kg/m^3
- Thermal conductivity λ_D: 0,104 W/mK
- Compressive strength 28 days: 2,24 N/mm^2
- Moisture resistance: rotproof
- Permeability to water vapour μ = 10,2
- Bag: 70 L yield
- Yield: 13 - 14 bags = 1 m^3 of lightweight thermal insulating mortar.

λ_D = 0,104 W/mK

ISOLCAP SPEED 525

Ready to use, thermal insulating base screed.
Quick drying, improved strength, high compact surface.

- Beads fine grain size Ø 2 mm
- Binder pre-batched at 525 kg/m^3
- Volumetric mass dry mortar: 540 kg/m^3
- Thermal conductivity λ_D: 0,095 W/mK
- Compressive strength 28 days: 1,7 N/mm^2
- Moisture resistance: rotproof
- Permeability to water vapour μ = 10,2
- Bag: 70 L yield
- Yield: 13 - 14 bags = 1 m^3 of lightweight thermal insulating mortar.

λ_D = 0,095 W/mK

SCREEDS

LIGHTWEIGHT AND THERMAL INSULATING

ISOLCAP MAX 800

Ready to use, thermal insulating screed.

- Beads fine grain size Ø 2 mm
- Binder pre-batched at 800 kg/m^3
- Volumetric mass dry mortar: 815 kg/m^3
- Thermal conductivity λ_D: 0,176 W/mK
- Compressive strength 28 days: ≥ 5,0 N/mm^2
- Moisture resistance: rotproof
- Permeability to water vapour μ = 14,0
- Bag: 50 L yield
- Yield: 19 - 20 bags = 1 m^3 of lightweight thermal insulating mortar.

λ_D = 0,176 W/mK

LA CHAPE XXs®

Ready to use and fibre-reinforced thermal insulating screed, at low thickness.

- Beads Ø 2 - 3 mm
- Pre-batched at 1200 kg/m^3
- Compressive strength: ≥ 12 N/mm^2 (C12)
- Flexural strength: ≥ 3 N/mm^2 (F3)
- Fire reaction: A1
- Bag: 23 L yield
- Yield: 12 kg/m^2/cm of thickness.

thickness from 1 CM

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COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

APPLICATION METHOD . LIGHTWEIGHT SCREEDS AND BASE SCREEDS

CAN BE MIXED WITH:	ISOLCAP LIGHT 110	ISOLCAP 250	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525 *	ISOLCAP MAX 800
Drill and whip	yes	yes	yes	yes	yes	yes
Cement mixer	yes	yes	yes	yes	yes	yes
Horizontal mixer	yes	yes	yes	yes	yes	yes
CAN BE MIXED AND PUMPED AT THE LAYING SURFACE WITH:	**ISOLCAP LIGHT 110**	**ISOLCAP 250**	**ISOLCAP FEIN 300**	**ISOLCAP XX 500**	**ISOLCAP SPEED 525 ***	**ISOLCAP MAX 800**
Isolcap Machine (see equipment)	yes	yes	yes	yes **	no	yes **
Politerm® Machine (see equipment)	yes	yes	yes	yes **	no	yes **
Plastering machine	yes ***	no	yes	yes	yes	yes
Pump for base screeds	no	yes	yes	yes	no	yes
Cement mixer and concrete pump	no	yes	yes	yes	no	yes
Plastering machine 220 V - 380 V	yes	no	yes	yes	yes	yes
Isolcap Mixer 50	no	no	no	no	no	no

(*) Isolcap Speed 525 is a fast drying product: for this reason it always must be used maximum within 15 minutes from the mixing, considering the weather conditions, temperature and air humidity (see technical data sheet). **(**)** The pumping of **Isolcap XX 500** and **Isolcap Max 800** with Politerm® Machine will cause a faster usury of the stator. **(***)** Single-phase plastering machine or three-phase if correctly prepared. *Contact Edilteco Technical Department.*




APPLICATION TABLE . LIGHTWEIGHT BASE SCREEDS AND SCREEDS

INTERMEDIATE LAYER / FILLING / INSTALLATION LEVELLING:	ISOLCAP LIGHT 110	ISOLCAP 250	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525 **	ISOLCAP MAX 800
Installation levelling	yes	yes	yes	yes	yes	yes
Beneath sand-cement screed	yes	yes	yes	yes	yes	yes
Levelling of vaulted slabs	yes	yes	yes	yes	yes	yes
Beneath self-levelling screeds	yes	yes	yes	yes	yes	yes
For floor heating	yes	yes	yes	yes	yes	yes
Beneath industrial floor	no	no	yes	yes	yes	yes
Beneath drivable asphalt	no	no	yes	yes	yes	yes
ROOFING:	**ISOLCAP LIGHT 110**	**ISOLCAP 250**	**ISOLCAP FEIN 300**	**ISOLCAP XX 500**	**ISOLCAP SPEED 525 ****	**ISOLCAP MAX 800**
Pitched roof	yes *	yes	yes	yes	yes	yes
Flat roof with no sloping	yes *	yes	yes	yes	yes	yes
Flat roof with sloping	yes *	yes	yes	yes	yes	yes
Vaulted roof	yes *	yes	yes	yes	yes	yes
Corrugated sheet	yes *	yes	yes	yes	yes	yes
Asbestos fibre cement encapsulation	no	yes	yes	yes	yes	yes
"PIANO ZERO" DIRECT GLUE APPLICATION OF FINISHING FLOORING:	**ISOLCAP LIGHT 110**	**ISOLCAP 250**	**ISOLCAP FEIN 300**	**ISOLCAP XX 500**	**ISOLCAP SPEED 525 ****	**ISOLCAP MAX 800**
Single layer for ceramic and gres	no	no	yes	yes	yes	yes
With smoothing mortar for parquet	no	no	yes	yes	yes	yes
Allotment with tarp resilience	no	no	yes	yes	yes	yes

(*) Warning: not suitable for directly receiving waterproofing layers. *Please do not hesitate to contact the Edilteco Technical Department for any kind of information.* **(**)** **Isolcap Speed 525** is a fast drying product: for this reason it always must be used maximum within 15 minutes from the mixing, considering the weather conditions, temperature and air humidity (see technical data sheet).

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INTERMEDIATE LAYER

FOR LIGHTWEIGHT SCREEDS

APPLICATION: lightweight thermal insulating screed, made with Isolcap, supplied in premixed bags laid by skilled applicators using the **Intermediate Layer method: for the application of a lightweight EPS screeds like Isolcap Max 800 or La Chape XXs®.**

APPLICATION FIELDS: slabs between floors, garrets, flat terraces (with or without falls), vault and volumes filling, corrugated sheet mezzanines, etc.

MINIMUM APPLICATION THICKNESS: 50 mm.
For thicknesses less than 50 mm proceed as follows (only for limited areas):

- Thicknesses between 30 mm and 50 mm on well consolidated surfaces (e.g. with electrical installation and/or hydraulic pipes securely haunched with cement mortar): a lower thickness can be accepted.
- For thicknesses between 10 mm and 30 mm: add to the mix of cement and Isolcap about 200 kg/m^3 of aggregate with a maximum grain size of 0,6 mm (mixed manually) and include a galvanized metal mesh.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Isolcap, manufactured by Edilteco S.p.A.: superlight thermal insulating mortar composed of water binders and aggregates in virgin expanded polystyrene beads with constant particle size and with controlled density. It is premixed bead by bead with E.I.A. additive during the production phase, which allows perfect mixing with water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution throughout the mixture. For the application there are the following types of Isolcap: Isolcap Light 110, or Isolcap 250, or Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800. The lightweight screed will be suitable to receive the application of lightweight screed like Isolcap Max 800 or La Chape XXs®.

The screed obtained will have the following characteristics:

ISOLCAP TYPE:	ISOLCAP LIGHT 110	ISOLCAP 250	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525	ISOLCAP MAX 800	LA CHAPE XXs®
Dry density kg/m^3	110	250	300	500	525	800	1200
Volumetric mass (dry mortar) kg/m^3 approx.	130	265	315	515	540	815	-
Moisture resistance	rotproof						
Acoustic performance ΔL_w	n.a.	14 *	26 **	17 ***	17 ***	19 ***	17 ****
Thermal conductivity λ_D W/mK	0,043	0,067	0,080	0,104	0,095	0,176	-
Compressive strength 28 days N/mm^2	0,528	0,83	1,61	2,24	1,7	≥ 5,0	≥ 12
Permeability to water vapour μ	5,1	6,9	7,2	10,2	10,2	14,0	-
Residual moisture after 28 days. 5 cm thickness on absorbent surface - in volume	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%	-

* Value obtained in laboratory with 5 cm of Isolcap + 5 cm of screed / ** Value obtained in laboratory with 7 cm of Isolcap + Fonotech 5 /
*** Value calculated with 5 cm of Isolcap + Fonotech 5 / **** At thickness 5 cm (estimate)

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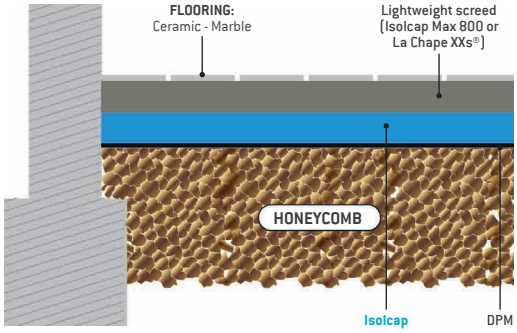
In case of applications on slabs, concrete pour, crawl spaces, etc. the screed's application prepared with Isolcap does not need of a galvanized mesh.
In case of the application surface is composed of sound insulating sheets, bituminous and/or synthetic waterproofing layer, ceramic flooring, linoleum, pvc, wooden flooring, carpeting, corrugated sheets, etc. is necessary to include sheets of galvanized mesh (minimum dimensions: wire ∅ 2 mm - mesh 50 x 50 mm), before Isolcap application, at a due distance from the laying surface.

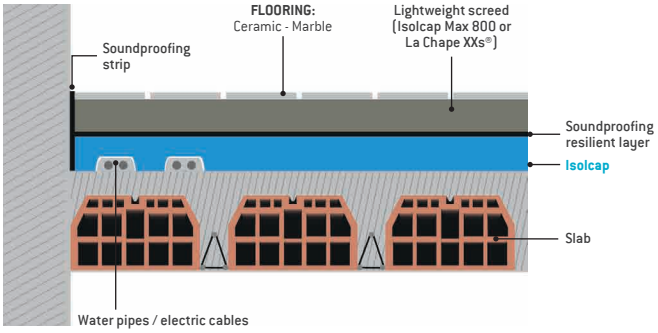
WARNINGS AND PRECAUTIONS:

- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Isolcap screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Isolcap screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- **Protect Isolcap screed in case of highly trafficked surface.**
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

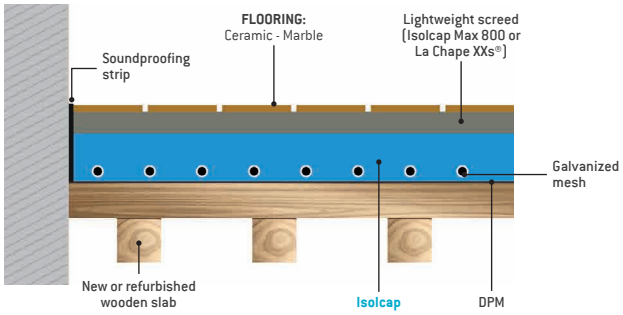
GROUND FLOOR: LIGHTWEIGHT THERMAL INSULATING SCREED



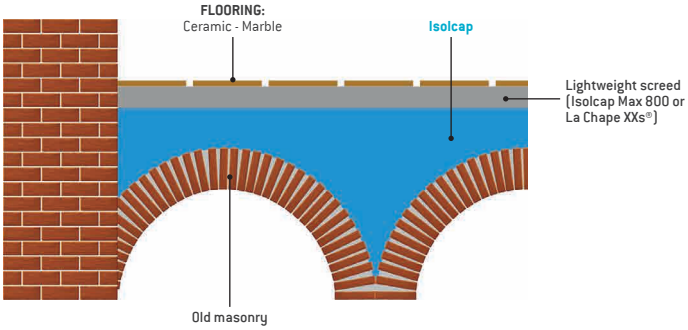
BETWEEN FLOORS: INTERMEDIATE LIGHTWEIGHT AND THERMAL INSULATING LEVELLING LAYER



WOODEN SLAB: INSULATING LAYER



SPECIAL APPLICATION: LIGHTWEIGHT THERMAL INSULATING LEVELLING-FILLING OF VAULTED SLABS



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INTERMEDIATE LAYER

FOR SAND-CEMENT SCREEDS AND SELF-LEVELLING SCREEDS

APPLICATION: lightweight thermal insulating screed, made with Isolcap, supplied in premixed bags laid by skilled applicators using the **Intermediate Layer method: for the application of sand-cement or self-levelling screeds.**

APPLICATION FIELDS: slabs between floors, garrets, flat terraces (with or without falls), vault and volumes filling, corrugated sheet mezzanines, etc.

MINIMUM APPLICATION THICKNESS: 50 mm.
For thicknesses less than 50 mm proceed as follows (only for limited areas):

- Thicknesses between 30 mm and 50 mm on well consolidated surfaces (e.g. with electrical installation and/or hydraulic pipes securely haunched with cement mortar): a lower thickness can be accepted.
- For thicknesses between 10 mm and 30 mm: add to the mix of cement and Isolcap about 200 kg/m^3 of aggregate with a maximum grain size of 0,6 mm (mixed manually) and include a galvanized metal mesh.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Isolcap, manufactured by Edilteco S.p.A.: superlight thermal insulating mortar composed of water binders and aggregates in virgin expanded polystyrene beads with constant particle size and with controlled density. It is premixed bead by bead with E.I.A. additive during the production phase, which allows perfect mixing with water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution throughout the mixture. For the application there are the following types of Isolcap: Isolcap Light 110, or Isolcap 250, or Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800. The lightweight screed will be suitable to receive the application of sand-cement screed like Kronos or self-levelling screed.

The screed obtained will have the following characteristics:

ISOLCAP TYPE:	ISOLCAP LIGHT 110	ISOLCAP 250	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525	ISOLCAP MAX 800
Dry density kg/m^3	110	250	300	500	525	800
Volumetric mass (dry mortar) kg/m^3 approx.	130	265	315	515	540	815
Moisture resistance	rotproof					
Acoustic performance ΔL_w	n.a.	14 *	26 **	17 ***	17 ***	19 ***
Thermal conductivity λ_D W/mK	0,043	0,067	0,080	0,104	0,095	0,176
Compressive strength 28 days N/mm^2	0,528	0,83	1,61	2,24	1,7	≥ 5,0
Permeability to water vapour μ	5,1	6,9	7,2	10,2	10,2	14,0
Residual moisture after 28 days. 5 cm thickness on absorbent surface - in volume	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%

* Value obtained in laboratory with 5 cm of Isolcap + 5 cm of screed / ** Value obtained in laboratory with 7 cm of Isolcap + Fonotech 5 /
*** Value calculated with 5 cm of Isolcap + Fonotech 5

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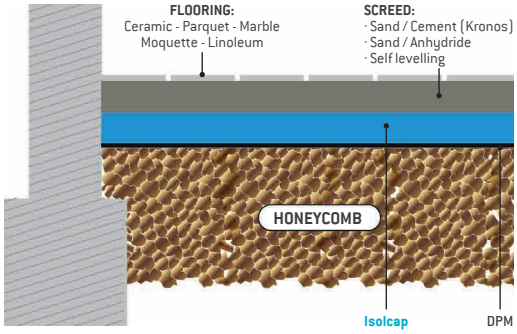
In case of applications on slabs, concrete pour, crawl spaces, etc. the screed's application prepared with Isolcap does not need of a galvanized mesh.
In case of the application surface is composed of sound insulating sheets, bituminous and/or synthetic waterproofing layer, ceramic flooring, linoleum, pvc, wooden flooring, carpeting, corrugated sheets, etc. is necessary to include sheets of galvanized mesh (minimum dimensions: wire ∅ 2 mm - mesh 50 x 50 mm), before Isolcap application, at a due distance from the laying surface.

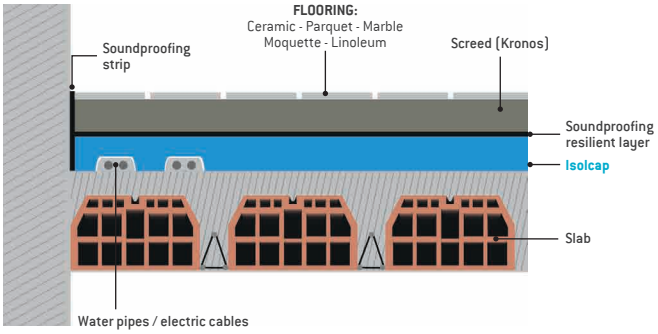
WARNINGS AND PRECAUTIONS:

- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Isolcap screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Isolcap screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- **Protect Isolcap screed in case of highly trafficked surface.**
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

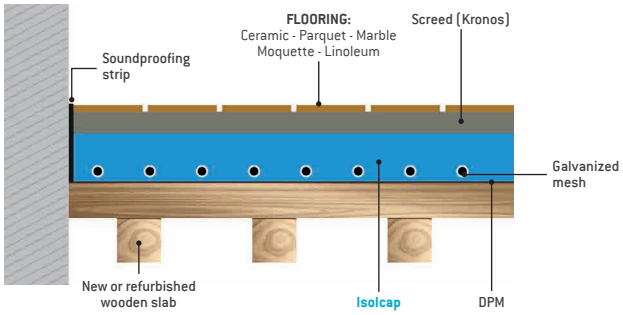
GROUND FLOOR: LIGHTWEIGHT THERMAL INSULATING SCREED



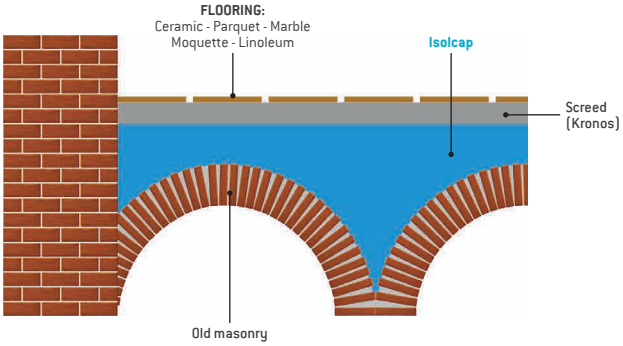
BETWEEN FLOORS: INTERMEDIATE LIGHTWEIGHT AND THERMAL INSULATING LEVELLING LAYER



WOODEN SLAB: INSULATING LAYER



SPECIAL APPLICATION: LIGHTWEIGHT THERMAL INSULATING LEVELLING-FILLING OF VAULTED SLABS



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INTERMEDIATE LAYER

FOR SCREEDS AND SELF-LEVELLING SCREEDS AND UNDERFLOOR HEATING SYSTEMS

APPLICATION: lightweight thermal insulating screed, made with Isolcap, supplied in premixed bags laid by skilled applicators using the **Intermediate Layer method for self-levelling mortars: suitable to receive the laying of a self-levelling screed.**

APPLICATION FIELDS: slabs between floors, ground floors, screeds for underfloor heating systems (with or without panels), garrets, flat terraces (with or without falls), vault and volumes filling, corrugated sheet mezzanines, etc.

ISOLCAP USED AS BASE SCREED FOR SELF-LEVELLING SCREEDS:

1. The specific characteristics (very low water absorption) of Isolcap mortars **make unnecessary** the use of damp proof membrane (DPM), if the mortar is correctly mixed and laid according to the manufacturer's instructions and after surface treatment with **Edilstik** "fresh on fresh". The use of a damp proof membrane (DPM) is necessary in all the possible cases of rising damp. In this case, the DPM may be placed under the Isolcap base screed or between the base screed and the self-levelling screed.
2. In case of particular static situation (e.g. slabs), it is necessary to install a separating layer between Isolcap base screed and the self-levelling screed.
3. The thickness of the self-levelling screed, placed on Isolcap screed, should be realized in accordance with the recommendations of the manufacturers of the self-levelling screed.

ISOLCAP USED AS BASE SCREED FOR UNDERFLOOR HEATING:

1. The specific characteristics (very low water absorption) of Isolcap mortars **make unnecessary** the use of damp proof membrane (DPM), if the mortar is correctly mixed and laid according to the manufacturer's instructions.
2. Installation of ufh piping system on rigid insulation panels: follow the installation instructions of the supplier of the heating system.
3. Installation of ufh piping system without panel: the certified thermal insulating characteristics of Isolcap mortars allow to make thermal calculation and avoid the use of further unnecessary insulating panels. In this case, lay a galvanized mesh on Isolcap base screed, where fixing ufh.

MINIMUM APPLICATION THICKNESS: 50 mm.
For thicknesses less than 50 mm proceed as follows (only for limited areas):

- Thicknesses between 30 mm and 50 mm on well consolidated surfaces (e.g. with electrical installation and/or hydraulic pipes securely haunched with cement mortar): a lower thickness can be accepted.
- For thicknesses between 10 mm and 30 mm: add to the mix of cement and Isolcap about 200 kg/m^3 of aggregate with a maximum grain size of 0,6 mm (mixed manually) and include a galvanized metal mesh.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Isolcap, manufactured by Edilteco S.p.A.: superlight thermal insulating mortar composed of water binders and aggregates in virgin expanded polystyrene beads with constant particle size and with controlled density. It is premixed bead by bead with E.I.A. additive during the production phase, which allows perfect mixing with water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution throughout the mixture. For the application there are the following types of Isolcap: Isolcap Light 110, or Isolcap 250, or Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800. The obtained lightweight screed is suitable for the laying of sand-cement screed like Kronos or self-levelling screed. Therefore it will have a final flatness with a maximum tolerance of ± 5 mm on a distance of 3 m (measurement carried out as per "Code of Good Practice Con.Pavi.").

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The screed obtained will have the following characteristics:

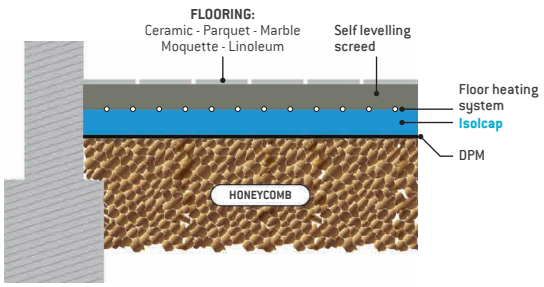
ISOLCAP TYPE:	ISOLCAP LIGHT 110	ISOLCAP 250	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525	ISOLCAP MAX 800
Dry density kg/m^3	110	250	300	500	525	800
Volumetric mass (dry mortar) kg/m^3 approx.	130	265	315	515	540	815
Moisture resistance	rotproof					
Acoustic performance ΔL_w	n.a.	14 *	26 **	17 ***	17 ***	19 ***
Thermal conductivity λ_D W/mK	0,043	0,067	0,080	0,104	0,095	0,176
Compressive strength 28 days N/mm^2	0,528	0,83	1,61	2,24	1,7	≥ 5,0
Permeability to water vapour μ	5,1	6,9	7,2	10,2	10,2	14,0
Residual moisture after 28 days. 5 cm thickness on absorbent surface - in volume	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%

* Value obtained in laboratory with 5 cm of Isolcap + 5 cm of screed / ** Value obtained in laboratory with 7 cm of Isolcap + Fonotech 5 / *** Value calculated with 5 cm of Isolcap + Fonotech 5

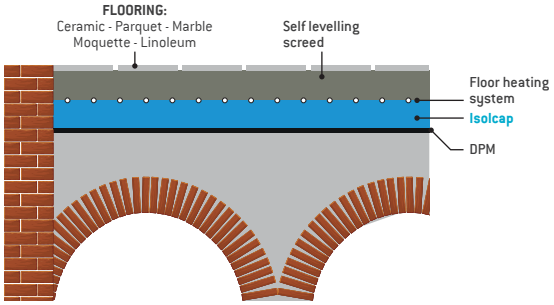
WARNINGS AND PRECAUTIONS:

- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Isolcap screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Isolcap screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- **Protect Isolcap screed in case of highly trafficked surface.**
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

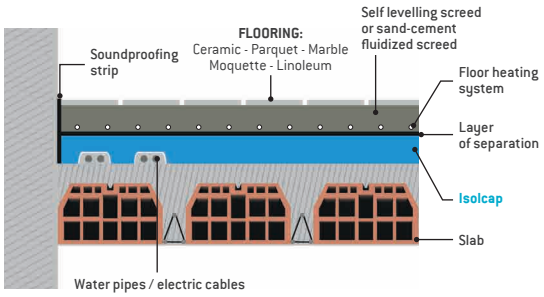
GROUND FLOOR: THERMAL INSULATING LEVELLING BASE SCREED FOR SELF-LEVELLING SCREEDS



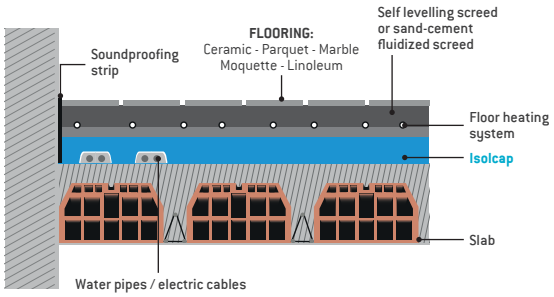
BETWEEN FLOORS: LIGHTWEIGHT FILLING LAYER FOR UNDERFLOOR HEATING SYSTEM OF VAULTED SLABS



BETWEEN FLOORS: LIGHTWEIGHT FILLING LAYER FOR UNDERFLOOR HEATING SYSTEM



BETWEEN FLOORS: LIGHTWEIGHT FILLING LAYER FOR UNDERFLOOR HEATING SYSTEM



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ROOFING

FOR PITCHED, FLAT (WITH OR WITHOUT FALLS) AND VAULTED ROOFS
which must directly receive a sand-cement screed and a following waterproofing layer

APPLICATION: lightweight thermal insulating screed, made with Isolcap, supplied in premixed bags laid by skilled applicators using the **Pumping on Roofing method: suitable for receiving the application of a sand-cement screed, and bituminous (hot or cold) and/or synthetic waterproofing membrane (prefab or liquid).**

APPLICATION FIELDS: pitched, vaulted and flat roofs and non-walkable terraces (with or without falls), corrugated sheet roofs, etc.

MINIMUM APPLICATION THICKNESS ON ABSORBENT SURFACES: 50 mm. *In case of under thickness, please contact Edilteco Technical Department.* In case of falls formation, the starting minimum thickness must not be less than 50 mm.

VERY ABSORBENT SURFACES (HOLLOW FLOORING BLOCKS, HOLLOW TILES, ETC.): clean properly the laying surface from dust. Apply a grout, promoting the adhesion and reducing the absorption, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.

MINIMUM APPLICATION THICKNESS ON NON-ABSORBENT SURFACES: 50 mm with galvanized mesh (minimum size: wire ∅ 3 mm - mesh 50 x 50 mm) at a due distance from the laying surface. ***Contact Edilteco Technical Department for any further information.***

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Isolcap, manufactured by Edilteco S.p.A.: superlight thermal insulating mortar composed of water binders and aggregates in virgin expanded polystyrene beads with constant particle size and with controlled density. It is premixed bead by bead with E.I.A. additive during the production phase, which allows perfect mixing with water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution throughout the mixture. For the application there are the following types of Isolcap: Isolcap Light 110, or Isolcap 250, or Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800. The lightweight screed obtained is suitable for receiving the application of a sand-cement screed like Kronos and the following bituminous (by hot or cold application) or synthetic (PVC, Polyolefin, etc.) waterproofing membrane (prefab or liquid).

The screed obtained will have the following characteristics:

ISOLCAP TYPE:	ISOLCAP LIGHT 110	ISOLCAP 250	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525	ISOLCAP MAX 800
Dry density kg/m^3	110	250	300	500	525	800
Volumetric mass (dry mortar) kg/m^3 approx.	130	265	315	515	540	815
Moisture resistance	rotproof					
Acoustic performance ΔL_w	n.a.	14 *	26 **	17 ***	17 ***	19 ***
Thermal conductivity λ_D W/mK	0,043	0,067	0,080	0,104	0,095	0,176
Compressive strength 28 days N/mm^2	0,528	0,83	1,61	2,24	1,7	≥ 5,0
Permeability to water vapour μ	5,1	6,9	7,2	10,2	10,2	14,0
Residual moisture after 28 days. 5 cm thickness on absorbent surface - in volume	< 2%	< 2%	< 2%	< 2%	< 2%	< 2%

* Value obtained in laboratory with 5 cm of Isolcap + 5 cm of screed / ** Value obtained in laboratory with 7 cm of Isolcap + Fonotech 5 /
*** Value calculated with 5 cm of Isolcap + Fonotech 5

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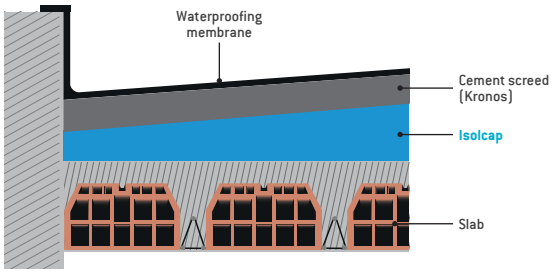
In case of applications on slabs, concrete pour, crawl spaces, etc. the screed's application prepared with Isolcap does not need of a galvanized mesh.
In case of the application surface is composed of sound insulating sheets, bituminous and/or synthetic waterproofing layer, ceramic flooring, linoleum, pvc, wooden flooring, carpeting, corrugated sheets, etc. is necessary to include sheets of galvanized mesh (minimum dimensions: wire ∅ 2 mm - mesh 50 x 50 mm), before Isolcap application, at a due distance from the laying surface.

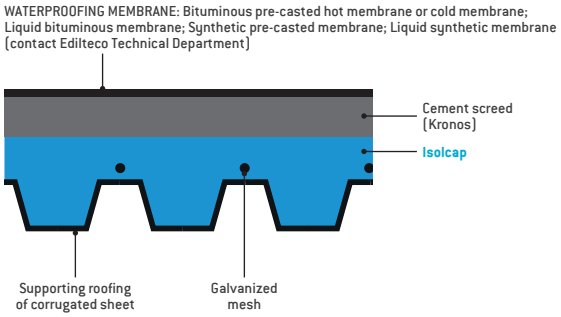
WARNINGS AND PRECAUTIONS:

- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Isolcap screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Isolcap screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- It is possible to apply Isolcap screed on pitched or vaulted roofs only for falls between 30% and 40% (according to the laying surface).
- Isolcap screed must be protected from rain for the first 48 hours from the application.
- The waterproofing membranes on Isolcap screed can be applied after 7 days in normal weather conditions. This time is indicative and according to the thickness and weather conditions. The application of the waterproofing membrane must follow the instructions of the membrane manufacturer.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

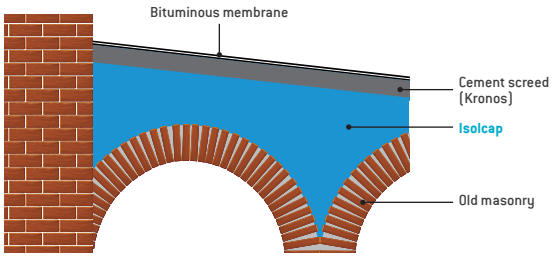
FLAT ROOF: SINGLE LAYER LIGHTWEIGHT THERMAL INSULATING SLOPING SCREED



ROOFING: LIGHTWEIGHT AND THERMAL INSULATING LEVELLING ON CORRUGATED SHEET



SPECIAL APPLICATION: LIGHTWEIGHT AND THERMAL INSULATING LEVELLING AND FILLING OF VAULTED ROOFS



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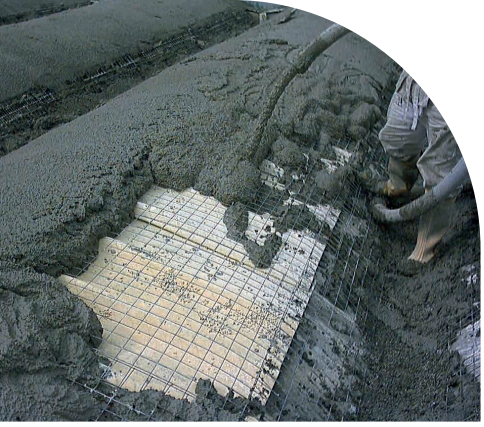

ROOFING

FOR PITCHED, FLAT (WITH OR WITHOUT FALLS) AND VAULTED ROOFS
for the following application of the waterproof membrane

APPLICATION: lightweight thermal insulating screed, made with Isolcap, supplied in premixed bags laid by skilled applicators using the **Pumping on Roofing method: suitable for receiving the application of bituminous (hot or cold) and/or synthetic waterproofing membrane (prefab or liquid).**

APPLICATION FIELDS: pitched, vaulted and flat roofs and non-walkable terraces (with or without falls), corrugated sheet roofs, etc.

MINIMUM APPLICATION THICKNESS ON ABSORBENT SURFACES: 50 mm. *In case of under thickness, please contact Edilteco Technical Department.*

VERY ABSORBENT SURFACES (HOLLOW FLOORING BLOCKS, HOLLOW TILES, ETC.): clean properly the laying surface from dust. Apply a grout, promoting the adhesion and reducing the absorption, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.

MINIMUM APPLICATION THICKNESS ON NON-ABSORBENT SURFACES: 50 mm with galvanized mesh (minimum size: wire ∅ 3 mm - mesh 50 x 50 mm) at a due distance from the laying surface. ***Contact Edilteco Technical Department for any further information.***

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Isolcap, manufactured by Edilteco S.p.A.: superlight thermal insulating mortar composed of water binders and aggregates in virgin expanded polystyrene beads with constant particle size and with controlled density. It is premixed bead by bead with E.I.A. additive during the production phase, which allows perfect mixing with water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution throughout the mixture. For the application there are the following types of Isolcap: Isolcap 250, or Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800. The lightweight screed obtained is suitable for receiving the application of a bituminous (by hot or cold application) or synthetic (PVC, Polyolefin, etc.) waterproofing membrane (prefab or liquid).

The screed obtained will have the following characteristics:

ISOLCAP TYPE:	ISOLCAP 250	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525	ISOLCAP MAX 800
Dry density kg/m^3	250	300	500	525	800
Volumetric mass (dry mortar) kg/m^3 approx.	265	315	515	540	815
Moisture resistance	rotproof				
Acoustic performance ΔL_w	14 *	26 **	17 ***	17 ***	19 ***
Thermal conductivity λ_D W/mK	0,067	0,080	0,104	0,095	0,176
Compressive strength 28 days N/mm^2	0,83	1,61	2,24	1,7	≥ 5,0
Permeability to water vapour μ	6,9	7,2	10,2	10,2	14,0
Residual moisture after 28 days. 5 cm thickness on absorbent surface - in volume	< 2%	< 2%	< 2%	< 2%	< 2%

* Value obtained in laboratory with 5 cm of Isolcap + 5 cm of screed / ** Value obtained in laboratory with 7 cm of Isolcap + Fonotech 5 /
*** Value calculated with 5 cm of Isolcap + Fonotech 5

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In case of applications on slabs, concrete pour, crawl spaces, etc. the screed's application prepared with Isolcap does not need of a galvanized mesh.
In case of the application surface is composed of sound insulating sheets, bituminous and/or synthetic waterproofing layer, ceramic flooring, linoleum, pvc, wooden flooring, carpeting, corrugated sheets, etc. is necessary to include sheets of galvanized mesh (minimum dimensions: wire ∅ 2 mm - mesh 50 x 50 mm), before Isolcap application, at a due distance from the laying surface.

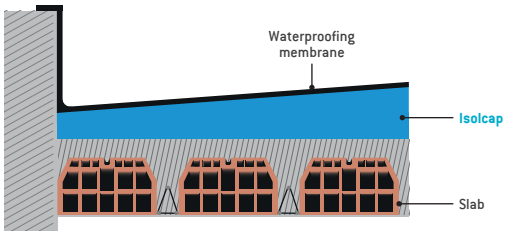
Before applying the waterproofing membrane, proceed with the treatment of the surface using one of the following methods:

a. Abrade the surface using an electric sander fitted with an abrasive disk and dust extraction;
   or
b. Burn the EPS beads on the surface. This method must to be executed not before than 7 days from the screed's application.

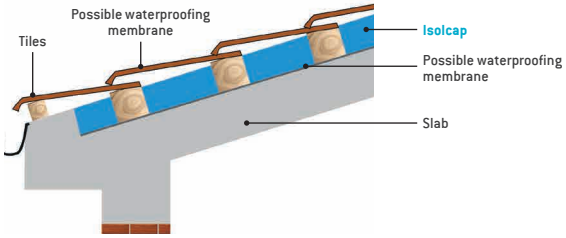
WARNINGS AND PRECAUTIONS:

- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Isolcap screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Isolcap screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- It is possible to apply Isolcap screed on pitched or vaulted roofs only for falls between 30% and 40% (according to the laying surface).
- Isolcap screed must be protected from rain for the first 48 hours from the application.
- The waterproofing membranes on Isolcap screed can be applied after 7 days in normal weather conditions. This time is indicative and according to the thickness and weather conditions. The application of the waterproofing membrane must follow the instructions of the membrane manufacturer.
- The use of liquid membranes on Isolcap screeds depends on the approval of the supplier/manufacturer of the membrane. Do not use solvent-based liquid membrane on Isolcap screeds.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

FLAT ROOF: SLOPING LIGHTWEIGHT AND THERMAL INSULATING SINGLE-LAYER SCREED

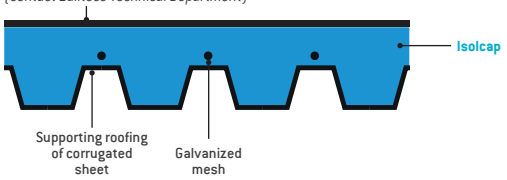


PITCHED ROOF: THERMAL INSULATING LAYER

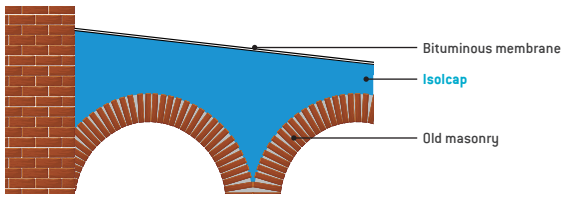


ROOFING: LIGHTWEIGHT AND THERMAL INSULATING LEVELLING ON CORRUGATED SHEET

WATERPROOFING MEMBRANE: Bituminous pre-casted hot membrane or cold membrane; Liquid bituminous membrane; Synthetic pre-casted membrane; Liquid synthetic membrane *(contact Edilteco Technical Department)*



SPECIAL APPLICATION: LIGHTWEIGHT AND THERMAL INSULATING LEVELLING AND FILLING OF VAULTED ROOFS



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ASBESTOS FIBRE CEMENT ENCAPSULATION

FOR THE RECOVERY OF ROOFING MADE OF ASBESTOS CEMENT BOARDS, LAID ON CONTINUOUS SLABS

APPLICATION: lightweight thermal insulating screed, made with Isolcap, supplied in premixed bags laid by skilled applicators using the **Pumping on Roofing method by encapsulation of asbestos fibre cement boards, to avoid the dispersion in the air of the asbestos cement fibres. Suitable for receiving the application of a bituminous (hot or cold) and/or synthetic waterproofing membrane (prefab or liquid).**

Using this method the encapsulation can be done without using the traditional hazardous, expensive and complex washing operation, as well as the scraping and fixing of cracks and crazing. Furthermore, using the Isolcap encapsulation system there is no need to remove, cut or drill the asbestos fibre cement boards thus avoiding the creation of hazardous dust.

APPLICATION FIELDS: pitched, vaulted and projecting roofs.

MINIMUM APPLICATION THICKNESS: 50 mm above the extrados of the upper edge of the asbestos cement boards.
The average thickness obtained will be approximately 80 mm (according to the type of board).

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Isolcap, manufactured by Edilteco S.p.A.: superlight thermal insulating mortar composed of water binders and aggregates in virgin expanded polystyrene beads with constant particle size and with controlled density. It is premixed bead by bead with E.I.A. additive during the production phase, which allows perfect mixing with water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution throughout the mixture. For the application there are the following types of Isolcap: Isolcap 250, or Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800. The lightweight screed obtained is suitable for receiving the application of a bituminous (by hot or cold application) or synthetic (PVC, Polyolefin, etc.) waterproofing membrane (prefab or liquid).

The screed obtained will have the following characteristics:

ISOLCAP TYPE:	ISOLCAP 250	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525	ISOLCAP MAX 800
Dry density kg/m^3	250	300	500	525	800
Volumetric mass (dry mortar) kg/m^3 approx.	265	315	515	540	815
Moisture resistance	rotproof				
Acoustic performance ΔL_w	14 *	26 **	17 ***	17 ***	19 ***
Thermal conductivity λ_D W/mK	0,067	0,080	0,104	0,095	0,176
Compressive strength 28 days N/mm^2	0,83	1,61	2,24	1,7	≥ 5,0
Permeability to water vapour μ	6,9	7,2	10,2	10,2	14,0
Residual moisture after 28 days. 5 cm thickness on absorbent surface - in volume	< 2%	< 2%	< 2%	< 2%	< 2%

* Value obtained in laboratory with 5 cm of Isolcap + 5 cm of screed / ** Value obtained in laboratory with 7 cm of Isolcap + Fonotech 5 /
*** Value calculated with 5 cm of Isolcap + Fonotech 5

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In accordance with the current standards, before proceeding with encapsulation, it is mandatory the temporary inertization of the asbestos cement boards by spraying the specific latex **Edilstik F.C.A.**, diluted in clean water (ratio 1:2).

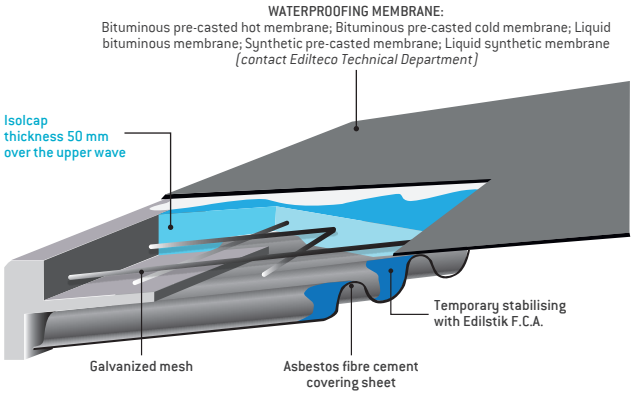
Before laying Isolcap screed, lay a galvanized mesh (minimum dimension: wire ∅ 2 mm - diameter 50 x 50 mm) properly bound and spaced from the laying surface. This operation makes the walking on roof easier in case of sloping slabs.

Before applying the waterproofing membrane, proceed with the treatment of the surface using one of the following methods:

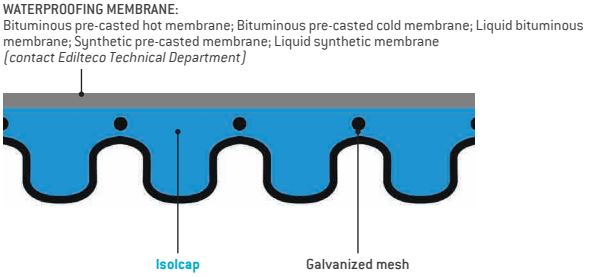
a. **Abrade the surface using an electric sander fitted with an abrasive disk and dust extraction;**
   or
b. **Burn the EPS beads on the surface. This method must to be executed not before than 7 days from the screed's application.**

WARNINGS AND PRECAUTIONS:

- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- The encapsulation and recovery of asbestos cement boards must always be done according to the current legislation.
- The encapsulation with Isolcap screed on roofing, composed of asbestos cement boards on metal structure or on any type of exposed structure, is possible only after the check and the confirmation, by an approved technician, of the safety conditions (scaffolding, protective net, etc.).
- Before laying the Isolcap screed, properly clean the receiving surface.
- It is possible to apply Isolcap screed on pitched or vaulted roofs only for falls between 30% and 40% (according to the laying surface).
- Isolcap screed must be protected from rain for the first 48 hours from the application.
- The waterproofing membranes on Isolcap screed can be applied after 7 days in normal weather conditions. This time is indicative and according to the thickness and weather conditions. The application of the waterproofing membrane must follow the instructions of the membrane manufacturer.
- In order to guarantee a proper dispersion of Isolcap screed's humidity and avoid the detachment of the waterproofing membrane, it is recommended the laying of enhancers.
- The use of liquid membranes on Isolcap screeds depends on the approval of the supplier/manufacturer of the membrane. Do not use solvent-based liquid membrane on Isolcap screeds.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***



SPECIAL APPLICATION: ENCAPSULATION OF ROOFING MADE OF ASBESTOS FIBRE CEMENT



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PIANO ZERO
SINGLE LAYER

FOR DIRECT APPLICATION WITH GLUE OF CERAMIC TILES, GRES, CLINKER, PRE-POLISHED MARBLE (FOR INDOOR USE)

APPLICATION: lightweight thermal insulating screed, made with Isolcap, supplied in premixed bags laid by skilled applicators using the **Piano Zero method: suitable for the direct application of ceramic tiles, gres, clinker and pre-polished marble.**

APPLICATION FIELDS: slabs between floors, ground floors, flat terraces (with or without falls), filling of vaults, mezzanines on corrugated sheet, etc.

MINIMUM THICKNESS OF ISOLCAP SCREED ON ABSORBENT SURFACES: 50 mm on slab and/or between the external point of the installation pipes and the internal point of the final flooring. ***In case of lower thickness contact Edilteco Technical Department.***

VERY ABSORBENT SURFACES (HOLLOW CLAY BRICKS, HOLLOW TILES, ETC.): thoroughly clean and remove dust from the laying surface. Apply a grout promoting the adhesion and reducing the absorbency, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.

MINIMUM THICKNESS OF ISOLCAP SCREED ON NON ABSORBENT SURFACES: the minimum thickness of **50 mm** is suitable only for the following surfaces:
Existing ceramic, gres, marble flooring, waterproofing bituminous membranes, after the following specific treatment:
a. Cleaning of the laying surface in order to eliminate dust, wax, loose parts and anything that might prevent the adhesion of the following layers.
b. Apply the adhesion promoter to be used as prescribed by the manufacturer.
c. Laying of the lightweight screed Isolcap, like Isolcap Fein 300, Isolcap XX 500, Isolcap Speed 525 or Isolcap Max 800.

NB. For all other non absorbent surfaces, like water vapour barrier, solid panels, mats, etc. the minimum thickness must be **100 mm.** Before laying Isolcap mortar, apply a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support. Only for Isolcap Max 800 mortar the minimum thickness is **50 mm**, with the laying of a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support.
Contact Edilteco Technical Department for any further information.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Isolcap, manufactured by Edilteco S.p.A.: superlight thermal insulating mortar composed of water binders and aggregates in virgin expanded polystyrene beads with constant particle size and with controlled density. It is premixed bead by bead with E.I.A. additive during the production phase, which allows perfect mixing with water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution throughout the mixture. For the application there are the following types of Isolcap: Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800.

Possible application at the applicator's discretion: before the mixing and application of Isolcap screed, lay **Piano Zero** PVC screed rails (height 50 mm) at the same level of the final flooring, according to the final thickness of flooring and glue and the room's dimensions). The distance between the profiles must not be higher than 2,50 m. ***Contact Edilteco Technical Department to evaluate other solutions.*** Then, lay Isolcap mortar by straightedge on **Piano Zero** profiles.

After 72 hours from the application of the lightweight mortar, proceed as follows:
1. Surface abrasion by an electrical sander with abrasive disc, in order to eliminate any imperfection.
2. Finish the perimeter areas, where the sander can't reach, with a metal scraping tool.
3. Properly clean the surface, sucking dust and residual parts.
4. Check the level points using a ruler 1 meter long.

In case of aesthetic needs or screed protection, it is possible to lay a low thickness smoothing mortar, using the self-levelling mortar **Ariete Liv**, after treatment with **Edilstik** latex, laid "fresh on fresh". The lightweight screed obtained can receive the direct application of ceramic, gres, clinker and pre-polished marble flooring.

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The screed obtained will have the following characteristics:

ISOLCAP TYPE:	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525	ISOLCAP MAX 800
Dry density kg/m^3	300	500	525	800
Volumetric mass (dry mortar) kg/m^3 approx.	315	515	540	815
Moisture resistance	rotproof			
Acoustic performance ΔL_w	26 *	17 **	17 **	19 **
Thermal conductivity λ_D W/mK	0,080	0,104	0,095	0,176
Compressive strength 28 days N/mm^2	1,61	2,24	1,7	≥ 5,0
Permeability to water vapour μ	7,2	10,2	10,2	14,0
Residual moisture after 28 days. 5 cm thickness on absorbent surface - in volume	< 2%	< 2%	< 2%	< 2%

* Value obtained in laboratory with 7 cm of Isolcap + Fonotech 5 / ** Value calculated with 5 cm of Isolcap + Fonotech 5

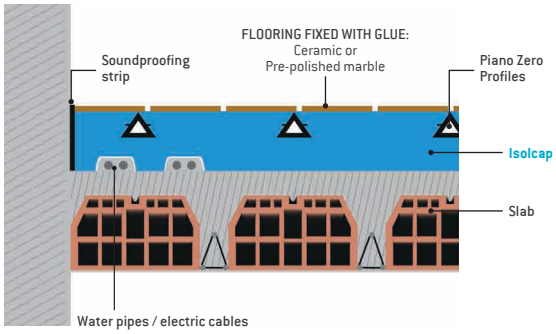
Drying time for direct flooring application (***)				
Ceramic, gres, clinker with glue	96 hours	24 hours	6 days	5 days
Floating parquet	7 days	48 hours	12 days	10 days

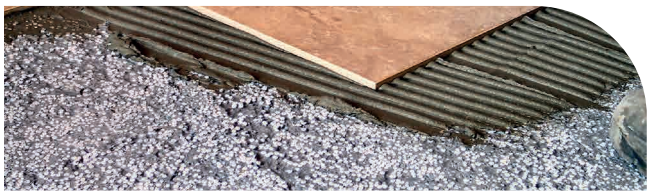
*** Indications for 5 cm base screed and weather conditions +20 °C and R.H. 50%
(according to general environmental, weather and building site conditions)

WARNINGS AND PRECAUTIONS:

- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- For the realization of lightweight single layer screeds, laid with **Piano Zero** method, the possible application of detaching or acoustic insulating mats must be done the intrados of the installations (with continuous flatness and fixed to the slab) and not at the extrados (on the top of installations), in order to avoid the formation of air bubbles preventing the acoustic insulation and the screed stability.
- Before laying the Isolcap screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Isolcap screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- The direct application of the final flooring on Isolcap base screed through **Piano Zero** method, without protective smoothing, demands a higher consumption of glue than traditional applications, approx. 20% more, because the support has the empty cells of the beads previously removed. This characteristic improves the adhesion between the surface and the glue.
- The glue selected must be suitable for this specific use and used according to the manufacturer's instructions.
- Laying of the plasterboard partitions directly on Isolcap screeds: previously smooth the area (thickness 2 mm) where applying the plasterboard rails (their width + 50 mm per side). Then, apply the rails with a specific double-sided tape.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

BETWEEN FLOORS: LIGHTWEIGHT THERMAL INSULATING SINGLE LAYER FOR CERAMIC FLOORING





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PIANO ZERO
SINGLE LAYER

FOR DIRECT APPLICATION WITH GLUE OF CERAMIC TILES, GRES, CLINKER, PRE-POLISHED MARBLE (FOR OUTDOOR USE)

APPLICATION: lightweight thermal insulating screed, made with Isolcap, supplied in premixed bags laid by skilled applicators using the **Piano Zero method: suitable for the direct application of ceramic tiles, gres, clinker and pre-polished marble.**

APPLICATION FIELDS: flat terraces (with or without falls).

MINIMUM THICKNESS OF ISOLCAP SCREED ON ABSORBENT SURFACES: 50 mm on slab and/or between the external point of the installation pipes and the internal point of the final flooring. ***In case of lower thickness contact Edilteco Technical Department.***

VERY ABSORBENT SURFACES (HOLLOW CLAY BRICKS, HOLLOW TILES, ETC.): thoroughly clean and remove dust from the laying surface. Apply a grout promoting the adhesion and reducing the absorbency, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.

MINIMUM THICKNESS OF ISOLCAP SCREED ON NON ABSORBENT SURFACES: the minimum thickness of **50 mm** is suitable only for the following surfaces:

1. ***Existing ceramic, gres, marble or similar flooring, after the following specific treatment:***

a. Cleaning of the laying surface in order to eliminate dust, wax, loose parts and anything that might prevent the adhesion of the following layers.
b. Apply the adhesion promoter to be used as prescribed by the manufacturer.
c. Laying of the lightweight screed Isolcap, like Isolcap Fein 300, Isolcap XX 500, Isolcap Speed 525 or Isolcap Max 800.

2. ***Bituminous waterproofing membrane on the support, after the following specific treatment:***

a. Cleaning of the laying surface in order to eliminate dust, wax, loose parts and anything that might prevent the adhesion of the following layers.
b. Apply the adhesion promoter to be used as prescribed by the manufacturer.
c. Laying of the lightweight screed Isolcap, like Isolcap Fein 300, Isolcap XX 500, Isolcap Speed 525 or Isolcap Max 800, with the interposition of a galvanized mesh (minimum dimensions: wire ∅ 3 mm - mesh 50 x 50 mm).

NB. For all other non absorbent surfaces, like water vapour barrier, solid panels, mats, etc. the minimum thickness must be **100 mm.** Before laying Isolcap mortar, apply a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support. Only for Isolcap Max 800 mortar the minimum thickness is **50 mm**, with the laying of a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support.
Contact Edilteco Technical Department for any further information.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Isolcap, manufactured by Edilteco S.p.A.: superlight thermal insulating mortar composed of water binders and aggregates in virgin expanded polystyrene beads with constant particle size and with controlled density. It is premixed bead by bead with E.I.A. additive during the production phase, which allows perfect mixing with water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution throughout the mixture. For the application there are the following types of Isolcap: Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800.

Possible application at the applicator's discretion: before the mixing and application of Isolcap screed, lay **Piano Zero** PVC screed rails (height 50 mm) at the same level of the final flooring, according to the final thickness of flooring and glue and the room's dimensions). The distance between the profiles must not be higher than 2,50 m. ***Contact Edilteco Technical Department to evaluate other solutions.*** Then, lay Isolcap mortar by straightedge on **Piano Zero** profiles.

After 72 hours from the application of the lightweight mortar, proceed as follows:

1. Surface abrasion by an electrical sander with abrasive disc, in order to eliminate any imperfection.
2. Finish the perimeter areas, where the sander can't reach, with a metal scraping tool.
3. Properly clean the surface, sucking dust and residual parts.
4. Check the level points using a ruler 1 m long.
5. To the discretion of the applicator: burn the beads on the surface using a torch for waterproofing membrane. To do not before than 7 days from the screed application.

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In case of aesthetic needs or screed protection, it is possible to lay a low thickness (2 mm) smoothing mortar, as follows:

6. Preparation and laying of a cement layer, minimum thickness 2 mm, that can be realized with glue/smoothing mortar **Ariete Flex** (see tds) and after treatment with **Edilstik** latex, laid "fresh on fresh". **NB. The application of Ariete Flex can be realized only on a screed having a residual humidity volume not over 2% (measured by carbide tool) and after treatment with Edilstik, laid "fresh on fresh".**

EXTERNAL SURFACES: before the application of the final flooring, do a suitable waterproofing of the support.

The screed obtained will have the following characteristics:

ISOLCAP TYPE:	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525	ISOLCAP MAX 800
Dry density kg/m^3	300	500	525	800
Volumetric mass (dry mortar) kg/m^3 approx.	315	515	540	815
Moisture resistance	rotproof			
Acoustic performance ΔL_w	26 *	17 **	17 **	19 **
Thermal conductivity λ_D W/mK	0,080	0,104	0,095	0,176
Compressive strength 28 days N/mm^2	1,61	2,24	1,7	≥ 5,0
Permeability to water vapour μ	7,2	10,2	10,2	14,0
Residual moisture after 28 days. 5 cm thickness on absorbent surface - in volume	< 2%	< 2%	< 2%	< 2%

* Value obtained in laboratory with 7 cm of Isolcap + Fonotech 5 / ** Value calculated with 5 cm of Isolcap + Fonotech 5

Drying time for direct flooring application (***)				
Ceramic, gres, clinker with glue	96 hours	24 hours	6 days	5 days
Floating parquet	7 days	48 hours	12 days	10 days

*** Indications for 5 cm base screed and weather conditions +20 °C and R.H. 50%
(according to general environmental, weather and building site conditions)

WARNINGS AND PRECAUTIONS:

- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- For the realization of lightweight single layer screeds, laid with **Piano Zero** method, the possible application of detaching or acoustic insulating mats must be done the intrados of the installations (with continuous flatness and fixed to the slab) and not at the extrados (on the top of installations), in order to avoid the formation of air bubbles preventing the acoustic insulation and the screed stability.
- Before laying the Isolcap screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Isolcap screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- The direct application of the final flooring on Isolcap base screed through **Piano Zero** method, without protective smoothing, demands a higher consumption of glue than traditional applications, approx. 20% more, because the support has the empty cells of the beads previously removed. This characteristic improves the adhesion between the surface and the glue.
- The glue selected must be suitable for this specific use and used according to the manufacturer's instructions.
- Laying of the plasterboard partitions directly on Isolcap screeds: previously smooth the area (thickness 2 mm) where applying the plasterboard rails (their width + 50 mm per side). Then, apply the rails with a specific double-sided tape.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

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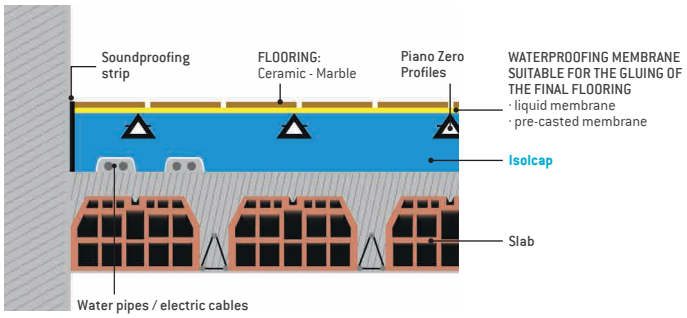
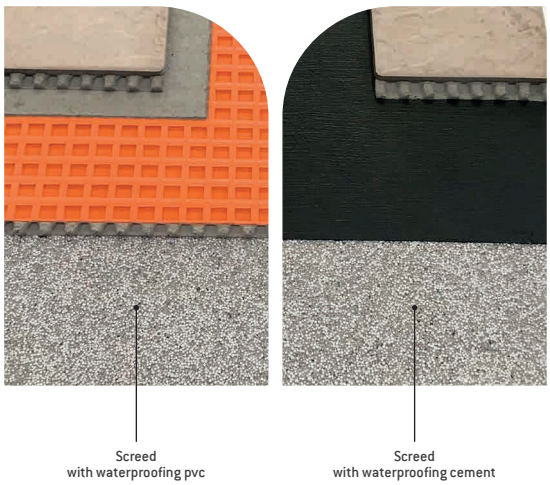
TERRACES AND BALCONIES: LIGHTWEIGHT AND THERMAL INSULATING SINGLE LAYER





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COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

PIANO ZERO SINGLE LAYER

FOR GLUE APPLICATION ON LOW THICKNESS WOODEN PARQUET AND MARBLE, TO BE SMOOTHED ON SITE

APPLICATION: lightweight thermal insulating screed, made with Isolcap, supplied in premixed bags laid by skilled applicators using the **Piano Zero method to create a flat close tolerance surface suitable for the direct laying and adhesion of parquet or marble, to be smoothed on site.**

APPLICATION FIELDS: slabs between floors, ground floors, flat terraces (with or without falls), filling of vaults, mezzanines on corrugated sheet, etc.

MINIMUM THICKNESS OF ISOLCAP SCREED ON ABSORBENT SURFACES: 55 mm including the thickness of the cement layer Ariete Liv (minimum 5,0 mm), on slab and/or between the external point of the installation pipes and the internal point of the final flooring. *In case of lower thickness contact Edilteco Technical Department.*

VERY ABSORBENT SURFACES (HOLLOW CLAY BRICKS, HOLLOW TILES, ETC.): thoroughly clean and remove dust from the laying surface. Apply a grout promoting the adhesion and reducing the absorbency, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.

MINIMUM THICKNESS OF ISOLCAP SCREED ON NON ABSORBENT SURFACES: 55 mm including the thickness of the cement layer Ariete Liv (minimum 5,0 mm), suitable only for the following surfaces:
Existing ceramic, gres, marble or similar flooring, after the following specific treatment:

a. Cleaning of the laying surface in order to eliminate dust, wax, loose parts and anything that might prevent the adhesion of the following layers.
b. Apply the adhesion promoter to be used as prescribed by the manufacturer.
c. Laying of the lightweight screed Isolcap, like Isolcap Fein 300, Isolcap XX 500, Isolcap Speed 525 or Isolcap Max 800.

NB. For all other non absorbent surfaces, like water vapour barrier, solid panels, mats, etc. the minimum thickness must be **105 mm.** Before laying Isolcap mortar, apply a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support. Only for Isolcap Max 800 mortar the minimum thickness is **55 mm**, with the laying of a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support.
Contact Edilteco Technical Department for any further information.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Isolcap, manufactured by Edilteco S.p.A.: superlight thermal insulating mortar composed of water binders and aggregates in virgin expanded polystyrene beads with constant particle size and with controlled density. It is premixed bead by bead with E.I.A. additive during the production phase, which allows perfect mixing with water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution throughout the mixture. For the application there are the following types of Isolcap: Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800 and application of the cement layer Ariete Liv.

Possible application at the applicator's discretion: before the mixing and application of Isolcap screed, lay **Piano Zero** PVC screed rails (height 50 mm) at the same level of the final flooring, according to the final thickness of flooring and glue and the room's dimensions). The distance between the profiles must not be higher than 2,50 m. *Contact Edilteco Technical Department to evaluate other solutions.*

The screed rails must be laid at the final flooring level, after deducing:
1. ***The thickness of the cement layer (minimum 5 mm).***
2. The thickness of the final flooring and relative glue.

Then, lay Isolcap mortar by straightedge on **Piano Zero** profiles.

After 72 hours from the application of the lightweight mortar, proceed as follows:
1. Surface abrasion by an electrical sander with abrasive disc, in order to eliminate any imperfection.
2. Finish the perimeter areas, where the sander can't reach, with a metal scraping tool.
3. Properly clean the surface, sucking dust and residual parts.
4. Check the level points using a ruler 1 meter long.
5. **To the discretion of the applicator:** burn the beads on the surface using a torch for waterproofing membrane. To do not before than 7 days from the screed application.
6. Preparation and laying of a cement layer, minimum thickness 5 mm, that can be realized with the self-levelling mortar **Ariete Liv**, after treatment with **Edilstik** latex, laid "fresh on fresh". **NB. The application of Ariete Liv can be realized only on a screed having a residual humidity volume not over 2% (measured by carbide tool) and after treatment with Edilstik laid "fresh on fresh".**

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The lightweight screed obtained can receive the direct application of parquet or pre-polished marble flooring. The application of the final flooring must be done after the proper curing of the support and the check of its residual humidity.

The screed obtained will have the following characteristics:

ISOLCAP TYPE:	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525	ISOLCAP MAX 800
Dry density kg/m^3	300	500	525	800
Volumetric mass (dry mortar) kg/m^3 approx.	315	515	540	815
Moisture resistance	rotproof			
Acoustic performance ΔL_w	26 *	17 **	17 **	19 **
Thermal conductivity λ_D W/mK	0,080	0,104	0,095	0,176
Compressive strength 28 days N/mm^2	1,61	2,24	1,7	≥ 5,0
Permeability to water vapour μ	7,2	10,2	10,2	14,0
Residual moisture after 28 days. 5 cm thickness on absorbent surface - in volume	< 2%	< 2%	< 2%	< 2%

* Value obtained in laboratory with 7 cm of Isolcap + Fonotech 5 / ** Value calculated with 5 cm of Isolcap + Fonotech 5

Drying time for direct flooring application (***)				
Ceramic, gres, clinker with glue	96 hours	24 hours	6 days	5 days
Floating parquet	7 days	48 hours	12 days	10 days

*** Indications for 5 cm base screed and weather conditions +20 °C and R.H. 50%
(according to general environmental, weather and building site conditions)

WARNINGS AND PRECAUTIONS:

- Isolcap screeds applied by **Piano Zero** method cannot be compared to the traditional sand-cement screeds. The main difference is the lower humidity absorption. For this reason, it is recommended to not use water-based glues for wooden or marble flooring, because the water would not be absorbed by the support, but by the final flooring, causing swelling or deformation.
- In case of application with **Piano Zero** method and acoustic insulating mats, lay the mats at the intrados of the installations (with continuous flatness and fixed to the slab) and not at the extrados (on the top of installations), in order to avoid the formation of air bubbles preventing the acoustic insulation and the screed stability.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- The parquet application requires a series of precautions according to the good practice, for both traditional and Isolcap screeds.

Below some examples of these precautions:

- Proceed to the environment conditioning of the wood, room by room, at least 8 days before the application.
- Protect the rooms from bad weather conditions at least 30 days before the application.
- Turn the heating system on at least 8 days before the parquet application.
- Before to start the application, check if the hygrometric conditions of the base screed are suitable for the parquet flooring (see the paragraph "Measurement of the residual humidity of Isolcap lightweight base screed").
- Lay the flooring using water-free glues.
- Lay the wooden flooring at 8 mm from the wall and any barrier that could cause the wood deformation.
- Any other recommendation traceable to the Good Practice.
- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying Isolcap screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Isolcap screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- The glue selected must be suitable for this specific use and used according to the manufacturer's instructions.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

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MEASUREMENT OF THE RESIDUAL HUMIDITY OF ISOLCAP LIGHTWEIGHT BASE SCREED

In order to establish the moisture content of the screed, it is necessary to measure the amount of water into a selected sample. This measurement is carried out using the HOECHST method, which use a calcium carbide hygrometer tool, to be used on site. Before proceeding with the measurement, it is necessary to identify the areas where take the samples. For each sample taken, it is necessary to note all the information regarding the environmental conditions of the sample (e.g. the type of tool used, the quantity of material taken, date, temperature and humidity), associated to every specific problem. This meticulous annotation allows to compare applications realized in different moments, by different workers. The HOECHST method for measuring the water content requires the use of a calcium carbide hygrometer, generally supplied as a kit, that includes: a bottle shaped container, closed by a pressure gauge top, a box with vials of calcium carbide, steel pulverizing balls, a set of precision testing scales for weighing the sample and other accessories, such as a brush to clean the container and tools for breaking out the sample from the screed surface.
The procedure is simple: measure the pressure exerted by the gas developed by the reaction between calcium carbide and the water contained in the sample. According to a particular chemical reaction, the calcium carbide ($CaC2$) and the water produce a certain quantity of acetylene ($C2H2$) while developing a certain pressure measured by the pressure gauge in the top of the container. Based on the pressure exerted and the weight of the material it is possible to calculate the percentage of moisture contained in the sample. The tool is easy to use and the measurement obtained is considered reliable.
However, the most critical issue is to carry out the sample carefully. The sample screed must be taken and finely crushed using the mortar supplied. The sample is then weighted using the testing scales supplied, and then inserted into the bottle together with the pulverizing steel balls and the vial of calcium carbide. Shaking the container, closed with the pressure gauge top, the steel balls break the ampoule of calcium carbide. The reaction starts, and it ends when it is possible to read a constant pressure on the pressure gauge (usually after about ten minutes). Since the reaction occurs in a closed environment, as more gas is formed, the higher becomes the pressure measured with the pressure gauge. The reaction of calcium carbide in contact with water produces an explosive mixture of air / acetylene, inside the cylinder. Therefore, all possible sources of ignition should be removed before emptying the cylinder. If possible, the cylinder should be opened outdoor. A psychometric bulb is used as measuring tool of the temperature and the relative humidity of the environment, when the sample has taken and tested. This tool must be placed, laid flat, in the area where you want to determine the aforementioned parameters. The bowl at the base must be filled with distilled water, which has to be in contact with one of the two thermometers (via a sock made of absorbent material). After reading the dry thermometer and then the wet thermometer, calculate the difference between the two measures in order to obtain a value from which, using an appropriate graduated scale, can be determined the relative humidity of the air.

SPECIFICATION FOR SCREED MADE WITH ISOLCAP MORTARS

The direct value obtained using the calcium carbide method has to be divided as follows:

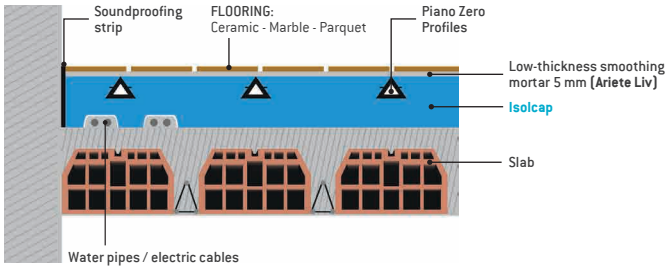
PRODUCT	DIVISION FACTOR DIRECT MEASURE
Isolcap Fein 300	5,0
Isolcap XX 500	4,0
Isolcap Speed 525	4,5
Isolcap Max 800	2,0

This is because the volumetric mass of Isolcap is less than the mass of a standard sand-cement screed.

The optimal measure is obtained with a sample of 20 g.

Humidity content measured using the carbide method is valid only if you are using a product made exclusively with virgin polystyrene beads (like Isolcap range). In fact, if the tests are realized on base screed composed of recycled polystyrene granules, the measurement is unreliable because water remains inside granules of the minced polystyrene, distorting the final value.
In case of the following application of other screed (sand-cement, self-levelling screeds, etc.) on top of Isolcap, it is necessary to realize a different measurement, because they are materials with different characteristics.

BETWEEN FLOORS: LIGHTWEIGHT THERMAL INSULATING LAYER WITH LOW-THICKNESS SMOOTHING MORTAR (5 mm)



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PIANO ZERO
SINGLE LAYER

FOR GLUE APPLICATION ON MEDIUM THICKNESS LAYER OF RESILIENT FLOORING (LINOLEUM, PVC, RUBBER, CARPETING, ETC.)

APPLICATION: lightweight thermal insulating screed, made with Isolcap, supplied in premixed bags laid by skilled applicators using the **Piano Zero method: suitable for the direct application of resilient flooring (eg. linoleum, PVC, rubber, carpeting, etc.).**

APPLICATION FIELDS: slabs between floors, ground floors, flat terraces (with or without falls), filling of vaults, mezzanines on corrugated sheet, etc.

MINIMUM THICKNESS OF ISOLCAP SCREED ON ABSORBENT SURFACES: 70 mm including the thickness of the cement layer Ariete Liv 30 (minimum 20 mm), on slab and/or between the external point of the installation pipes and the internal point of the final flooring. ***In case of lower thickness contact Edilteco Technical Department.***

VERY ABSORBENT SURFACES (HOLLOW CLAY BRICKS, HOLLOW TILES, ETC.): thoroughly clean and remove dust from the laying surface. Apply a grout promoting the adhesion and reducing the absorbency, composed of cement / Edilstik / clean water (ratio Edilstik / water 1:1). After drying, wet the surface and gradually proceed with the laying of the lightweight screed.

MINIMUM THICKNESS OF ISOLCAP SCREED ON NON ABSORBENT SURFACES: 70 mm including the thickness of the cement layer Ariete Liv 30 (minimum 20 mm), suitable only for the following surfaces:
Existing ceramic, gres, marble or similar flooring, after the following specific treatment:
a. Cleaning of the laying surface in order to eliminate dust, wax, loose parts and anything that might prevent the adhesion of the following layers.
b. Apply the adhesion promoter to be used as prescribed by the manufacturer.
c. Laying of the lightweight screed Isolcap, like Isolcap Fein 300, Isolcap XX 500, Isolcap Speed 525 or Isolcap Max 800.

NB. For all other non absorbent surfaces, like water vapour barrier, solid panels, mats, etc. the minimum thickness must be **120 mm.** Before laying Isolcap mortar, apply a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support. Only for Isolcap Max 800 mortar the minimum thickness is **70 mm**, with the laying of a galvanized mesh (minimum dimensions: wire ∅ 3 mm, mesh 50 x 50 mm), laid to a due distance from the support.
Contact Edilteco Technical Department for any further information.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Isolcap, manufactured by Edilteco S.p.A.: superlight thermal insulating mortar composed of water binders and aggregates in virgin expanded polystyrene beads with constant particle size and with controlled density. It is premixed bead by bead with E.I.A. additive during the production phase, which allows perfect mixing with water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution throughout the mixture. For the application there are the following types of Isolcap: Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800 and application of the cement layer Ariete Liv 30.

Possible application at the applicator's discretion: before the mixing and application of Isolcap screed, lay **Piano Zero** PVC screed rails (height 50 mm) at the same level of the final flooring, according to the final thickness of flooring and glue and the room's dimensions). The distance between the profiles must not be higher than 2,50 m. ***Contact Edilteco Technical Department to evaluate other solutions.***

The screed rails must be laid at the final flooring level, after deducing:
1. ***The thickness of the cement layer (minimum 20 mm).***
2. The thickness of the final flooring and relative glue.

The following application of Isolcap mortar requires the laying of the material by straightedge (it is recommended the use of a cutting float) on the **Piano Zero** profiles previously laid. Once the screed prepared with Isolcap mortar has reached a residual humidity not higher than 2% (measured with carbide tool), it is possible to realize a cement layer **20 mm thick**, which can be realized with premixed self levelling mortar, **Ariete Liv 30** type, or after the treatment with **Edilstik** laid "fresh on fresh". The lightweight screed obtained is suitable to receive the following direct glue application of resilient flooring, such as linoleum, pvc, rubber, moquette, etc. The flooring application can be done after the curing and evaluation of the residual humidity of the laying surface.

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The screed obtained will have the following characteristics:

ISOLCAP TYPE:	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525	ISOLCAP MAX 800
Dry density kg/m^3	300	500	525	800
Volumetric mass (dry mortar) kg/m^3 approx.	315	515	540	815
Moisture resistance	rotproof			
Acoustic performance ΔL_w	26 *	17 **	17 **	19 **
Thermal conductivity λ_D W/mK	0,080	0,104	0,095	0,176
Compressive strength 28 days N/mm^2	1,61	2,24	1,7	≥ 5,0
Permeability to water vapour μ	7,2	10,2	10,2	14,0
Residual moisture after 28 days. 5 cm thickness on absorbent surface - in volume	< 2%	< 2%	< 2%	< 2%

* Value obtained in laboratory with 7 cm of Isolcap + Fonotech 5 / ** Value calculated with 5 cm of Isolcap + Fonotech 5

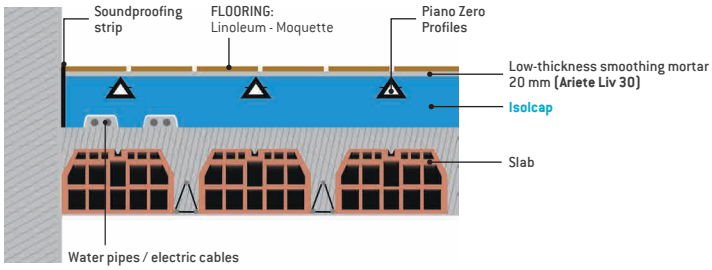
Drying time for direct flooring application (***)				
Ceramic, gres, clinker with glue	96 hours	24 hours	6 days	5 days
Floating parquet	7 days	48 hours	12 days	10 days

*** Indications for 5 cm base screed and weather conditions +20 °C and R.H. 50%
(according to general environmental, weather and building site conditions)

WARNINGS AND PRECAUTIONS:

- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying Isolcap screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Isolcap screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- For the realization of lightweight single layer screeds, laid with **Piano Zero** method, the possible application of detaching or acoustic insulating mats must be done the intrados of the installations (with continuous flatness and fixed to the slab) and not at the extrados (on the top of installations), in order to avoid the formation of air bubbles preventing the acoustic insulation and the screed stability.
- The glue selected must be suitable for this specific use and used according to the manufacturer's instructions.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

BETWEEN FLOORS: LIGHTWEIGHT THERMAL INSULATING LAYER WITH LOW-THICKNESS SMOOTHING MORTAR (20 mm)



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INTERMEDIATE LAYER

FOR THE APPLICATION OF ASPHALT ROAD SURFACE

APPLICATION: lightweight thermal insulating screed, composed of Isolcap mortars, laid by skilled applicators using the **Intermediate Layer method: suitable for the application of asphalt, also intended for the transit of vehicles.**

APPLICATION FIELDS: slabs between floors, ground floors.

MINIMUM APPLICATION THICKNESS: 100 mm.
In case of lower thickness, contact Edilteco Technical Department.

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Isolcap, manufactured by Edilteco S.p.A.: superlight thermal insulating mortar composed of water binders and aggregates in virgin expanded polystyrene beads with constant particle size and with controlled density. It is premixed bead by bead with E.I.A. additive during the production phase, which allows perfect mixing with water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution throughout the mixture. For the application there are the following types of Isolcap: Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800.

The main stratigraphies, that can be realized, are:
a. Flooring on slab with below a waterproofing membrane + non-woven fabric layer + 50 mm of asphalt.
b. Ground floor (without waterproofing membrane) + non-woven fabric layer + 50 mm of asphalt.

NB. in case of application of a waterproofing membrane and/or DPM under Isolcap screed, it must be covered by reinforced concrete (minimum thickness 100 mm). Types and methods as prescribed by the Technical Project Manager, according to the intended use.

The screed obtained will have the following characteristics:

ISOLCAP TYPE:	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525	ISOLCAP MAX 800
Dry density kg/m^3	300	500	525	800
Volumetric mass (dry mortar) kg/m^3 approx.	315	515	540	815
Moisture resistance	rotproof			
Acoustic performance ΔL_w	26 *	17 **	17 **	19 **
Thermal conductivity λ_D W/mK	0,080	0,104	0,095	0,176
Compressive strength 28 days N/mm^2	1,61	2,24	1,7	≥ 5,0
Permeability to water vapour μ	7,2	10,2	10,2	14,0
Residual moisture after 28 days. 5 cm thickness on absorbent surface - in volume	< 2%	< 2%	< 2%	< 2%

* Value obtained in laboratory with 7 cm of Isolcap + Fonotech 5 / ** Value calculated with 5 cm of Isolcap + Fonotech 5

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Isolcap screed can be directly applied on concrete slabs, concrete beam decks, compacted ground floor, loose stone foundation, etc., even in presence of a correctly applied DPM (Damp Proof Membrane), without using a galvanized metal mesh. If the receiving surface is made of insulating boards, bituminous and/or synthetic waterproofing layer, ceramic, linoleum, PVC, wooden flooring, carpeting or corrugated steel sheet, etc., before applying Isolcap screed it is recommended to lay a galvanized metal mesh (minimum dimensions: wire ∅ 2 mm, mesh 50 x 50 mm).

TECHNICAL EVALUATION: below, a few remarks about the application of Isolcap base screed in parkings and/or apron areas, where transit vehicles of maximum 3,5 ton weight.

Isolcap Fein 300 base screed, at 350 kg/m^3 of cement, has a mechanical compressive strength of approx. 1,48 N/mm^2. Considering a mechanical strength of the asphalt not higher than the Isolcap Fein 300 base screed, and ignoring the weight distribution on the 50 mm of asphalt, below the feasibility calculation of this work:

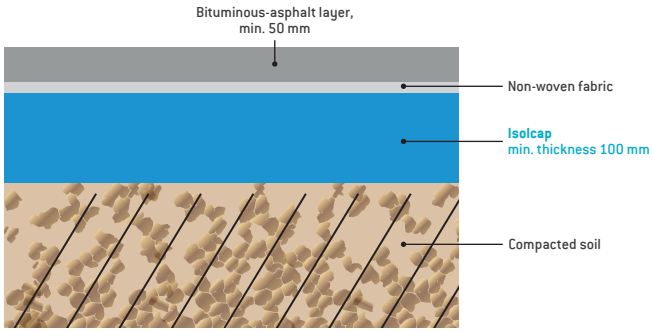
- Max. considered load per each vehicle: 3500 kg
- Print per each tyre (200 x 100 mm): 200 cm^2
- For 4 tyres the total supported load is: 800 cm^2
- The compressive strength of Isolcap Fein 300 base screed will be 800 cm^2 x 1,61 N/mm^2 = 13.138 kg

This result is much higher than the maximum load caused by any four-wheel vehicle.
Concerning the compatibility between the Isolcap base screed and the asphalt layer, there is any particular problem using the stratigraphies proposed in the "Item Specification" paragraph. These kinds of application have been realized by Edilteco technicians in Spain (outdoor apron above an the underground parking of the New Theatre of Catalonia, Barcelona - 1995) and Portugal (city car parking in Porto in 1996 and Braga).

WARNINGS AND PRECAUTIONS:

- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Isolcap screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Isolcap screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

SPECIAL APPLICATION: BASE SCREED FOR BITUMINOUS-ASPHALT LAYER



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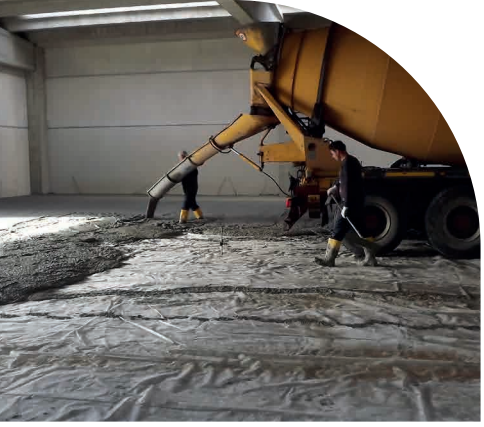

INTERMEDIATE LAYER

APPLICATION OF CONCRETE INDUSTRIAL FLOORING

APPLICATION: lightweight thermal insulating screed, composed of Isolcap mortars, laid by skilled applicators using the **Intermediate Layer method: suitable for the application of concrete industrial flooring, also intended for the transit of vehicles.**

APPLICATION FIELDS: slabs between floors, ground floors, etc.

MINIMUM APPLICATION THICKNESS: 100 mm. *In case of lower thickness, contact Edilteco Technical Department*

ITEM SPECIFICATION: realization of thermal insulating and lightweight screed made with Isolcap, manufactured by Edilteco S.p.A.: superlight thermal insulating mortar composed of water binders and aggregates in virgin expanded polystyrene beads with constant particle size and with controlled density. It is premixed bead by bead with E.I.A. additive during the production phase, which allows perfect mixing with water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution throughout the mixture. For the application there are the following types of Isolcap: Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800.

The main stratigraphies, that can be realized, are:

a. *Flooring on slab with waterproofing layer*: lightweight Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800 + waterproofing membrane + non-woven fabric layer + concrete industrial flooring, realized according to the project specification for the intended use.
b. *Ground floor with waterproofing layer and/or DPM:* lightweight Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800 + waterproofing membrane and/or vapour barrier + non-woven fabric layer + concrete industrial flooring, realized according to the project specification for the intended use.
c. *Ground floor without waterproofing layer and/or DPM:* lightweight Isolcap Fein 300, or Isolcap XX 500, or Isolcap Speed 525, or Isolcap Max 800 + non-woven fabric layer + concrete industrial flooring, realized according to the project specification for the intended use.

NB. in case of application of a waterproofing membrane and/or DPM under Isolcap screed, it must be covered by reinforced concrete (minimum thickness 100 mm). Types and methods as prescribed by the Technical Project Manager, according to the intended use.

The screed obtained will have the following characteristics:

ISOLCAP TYPE:	ISOLCAP FEIN 300	ISOLCAP XX 500	ISOLCAP SPEED 525	ISOLCAP MAX 800
Dry density kg/m^3	300	500	525	800
Volumetric mass (dry mortar) kg/m^3 approx.	315	515	540	815
Moisture resistance	rotproof			
Acoustic performance ΔL_w	26 *	17 **	17 **	19 **
Thermal conductivity λ_D W/mK	0,080	0,104	0,095	0,176
Compressive strength 28 days N/mm^2	1,61	2,24	1,7	≥ 5,0
Permeability to water vapour μ	7,2	10,2	10,2	14,0
Residual moisture after 28 days. 5 cm thickness on absorbent surface - in volume	< 2%	< 2%	< 2%	< 2%

* Value obtained in laboratory with 7 cm of Isolcap + Fonotech 5 / ** Value calculated with 5 cm of Isolcap + Fonotech 5

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Isolcap screed can be directly applied on concrete slabs, concrete beam decks, compacted ground floor, loose stone foundation, etc., even in presence of a correctly applied DPM (Damp Proof Membrane), without using a galvanized metal mesh. If the receiving surface is made of insulating boards, bituminous and/or synthetic waterproofing layer, ceramic, linoleum, PVC, wooden flooring, carpeting or corrugated steel sheet, etc., before applying Isolcap screed it is recommended to lay a galvanized metal mesh (minimum dimensions: wire ∅ 2 mm, mesh 50 x 50 mm).

TECHNICAL EVALUATION: below, a few remarks about the application of Isolcap base screed in parkings and/or apron areas, where transit vehicles of maximum 3,5 ton weight.

Isolcap Fein 300 base screed, at 350 kg/m^3 of cement, has a mechanical compressive strength of approx. 1,48 N/mm^2. Considering a mechanical strength of the asphalt not higher than the Isolcap Fein 300 base screed, and ignoring the weight distribution on the 50 mm of asphalt, below the feasibility calculation of this work:

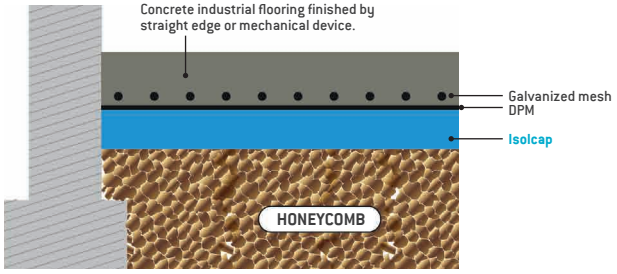
- Max. considered load per each vehicle: 3500 kg
- Print per each tyre (200 x 100 mm): 200 cm^2
- For 4 tyres the total supported load is: 800 cm^2
- The compressive strength of Isolcap Fein 300 base screed will be 800 cm^2 x 1,61 N/mm^2 = 13.138 kg

This result is much higher than the maximum load caused by any four-wheel vehicle.
Concerning the compatibility between the Isolcap base screed and the asphalt layer, there is any particular problem using the stratigraphies proposed in the "Item Specification" paragraph. These kinds of application have been realized by Edilteco technicians in Spain (outdoor apron above an the underground parking of the New Theatre of Catalonia, Barcelona - 1995) and Portugal (city car parking in Porto in 1996 and Braga).

WARNINGS AND PRECAUTIONS:

- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying the Isolcap screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Isolcap screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

SPECIAL APPLICATION: LEVELLING THERMAL-INSULATING LAYER UNDER INDUSTRIAL FLOORING



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END LAYER SCREED

INTERNAL FLOOR SCREEDS

APPLICATION: lightweight thermal insulating screed, made with Isolcap mortars, and applied by skilled applicators, suitable for the application of ceramic, gres or similar flooring *(for different floorings contact Edilteco Technical Department)*.

ABSORBENT SURFACES (application thickness):

PRODUCTS	MINIMUM THICKNESS mm	MAXIMUM THICKNESS mm	MESH
ISOLCAP MAX 800	50	No restrictions	No
LA CHAPE XXs®	10	No restrictions	No
KRONOS	40	80	No

NON-ABSORBENT SURFACES (application thickness):

PRODUCTS	MINIMUM THICKNESS mm	MAXIMUM THICKNESS mm	MESH
ISOLCAP MAX 800	50	No restrictions	Yes, for thickness up to 80 mm
LA CHAPE XXs®	20	No restrictions	Yes, for thickness up to 50 mm
KRONOS	40	80	Yes, for thickness up to 50 mm

WARNINGS AND PRECAUTIONS:

- When laying Isolcap screed maintain any existing structural joint and/or expansion joint on the receiving surface.
- Before laying Isolcap screed, properly clean the receiving surface.
- After the surface cleaning and before the application of Isolcap screed, moisten the surface without leaving water puddles. This step is not necessary in case of surfaces composed of waterproofing membranes or pre-existing non-absorbent (e.g. plastic, synthetic, ceramic) floorings.
- For the realization of lightweight single layer screeds, laid with **Piano Zero** method, the possible application of detaching or acoustic insulating mats must be done the intrados of the installations (with continuous flatness and fixed to the slab) and not at the extrados (on the top of installations), in order to avoid the formation of air bubbles preventing the acoustic insulation and the screed stability.
- The glue selected must be suitable for this specific use and used according to the manufacturer's instructions.
- Do not mix and lay Isolcap when temperatures are below +5 °C. The use of **anti-freezing additives** must be done according to the physico-chemical characteristics of Isolcap. The contractor should however evaluate the costs and benefits of using antifreeze additives according to the situation.
- When mixing Isolcap, strictly follow the dosages and methods indicated in the technical data sheets, on the bag and in this manual.
- Only in this way Edilteco can guarantee the results and performance claimed.
- Pour interruptions or levelling joints, if necessary, must be cast vertically.
- Before continuing to pour the product, treat previously the surface with the adhesion promoter latex **Edilstik** "fresh on fresh".
- ***It is essential that you contact our Engineering Department when considering any application different from that described in our technical data sheets and our manuals.***

EXTERNAL SURFACES: in case of external surfaces made with Isolcap Max 800, La Chape XXs® and/or Kronos, lay a waterproofing layer before to apply the final flooring.

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COMPLEMENTARY PRODUCTS

PIANO ZERO PROFILES

PVC screed rails used to fix the finished height of the screed.
They are particularly suitable for single layer lightweight screeds.
Each profile is 2 meter long and 50 mm high.
The special cross-section design allows them to be securely fixed and held within the screed, highly stable with excellent alignment. They also prevent the formation of thermal bridges. Piano Zero screed rails can also be used in traditional sand and cement screeds; in this case, they act as the contraction or shrinkage joint.

ARIETE LIV / ARIETE LIV 30 *Smoothing mortar*

Ready to use self-levelling mineral mortar in powder, for manual and mechanical application. Suitable as a high strength top coating layer or for the fine levelling of Politerm® Blu or Isolcap lightweight screeds (see Edilteco application manuals) prior to laying ceramic tiles, stone or marble floors and parquet flooring.

Packaging / Yield: bag of 25 kg - yield: 1,6 kg/m^2 per 10 mm thickness.
Applicable thickness: Ariete Liv from 1 to 10 mm - Ariete Liv 30 from 3 to 30 mm.

KRONOS

Premixed screed for the realization of internal and external base screeds, with medium-quick drying time, controlled shrinkage, composed of selected aggregates and special additives. Kronos can be used on all types of floor slabs, with or without thermal and/or acoustic insulation and on lightweight screeds. Once dry, any type of coating (wood, ceramic tiles, carpet, plastic coatings, etc.) can be applied on the screed.

Packaging / Yield: bag of 30 kg - 17 kg/m^2 per 10 mm thickness.

EDILSTIK

Synthetic latex for improving the adhesion properties of the cement screeds. To be used for the realization of lightweight single-layer screeds (Piano Zero method) to promote the adhesion to the support and for the realization of low thickness smoothing mortars as surface protection.

Packaging: Bottles 1 kg / Can 5 kg / Can 20 kg / Tank on pallet 1000 kg.
For the yield, please refer to the technical data sheet.

EDILSTIK F.C.A.

Pigmented synthetic latex for the temporary stabilisation of asbestos fibre cement sheets (type "D" certificate). To be applied before the encapsulation method with lightweight thermal insulating Politerm® Blu range mortars.

Packaging: Can 5 kg / Can 20 kg / Tank on pallet 1000 kg.
Colour: yellow - orange.
Low-pressure application with spray nozzle (see Edilstik Blow Machine) or airless.
Also available in the pre-diluted version.
For the yield, please refer to the technical data sheet.

EDILTECO group

Edilteco S.p.A. Via dell'Industria, 710 . 41038 San Felice sul Panaro (MO) Italy
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ENTE NAZIONALE COMPAVIPER SOCIO

COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

EQUIPMENT

POLITERM® MACHINE 1000 ECO

Entirely stainless steel equipment for the preparation (mixture) and pumping of screeds and light-weight screeds composed by fine grained materials such as virgin expanded polystyrene beads, reclaimed expanded polystyrene beads, perlite, vermiculite and cork, also mixed with cellular foam produced by specific equipment. The maximum length of the pipe for carrying the mortar is of 100 m with a maximum height of 30 m.

Electrical power supply: 400 V - 50 Hz.
Also available with diesel fuel: homologated diesel engine in accordance with regulation of noise pollution.
Available with tank:
· from 1 m^3

*** It is also available in the following version:**

POLITERM® MACHINE 1000 H2O

Equipped with automatic water dosage system.
For the setting up, please consult the technical data sheet.

ISOLCAP MACHINE H2O

Entirely stainless steel equipment for the preparation (mixing) and pumping of screeds and light-weight screeds (in particular the ready to use ones of the Isolcap range) composed of fine grained materials like virgin expanded polystyrene beads, reclaimed expanded polystyrene beads, perlite, vermiculite, cork and self-levelling screeds (concrete and anhydrite).

Weight: 320 kg. *Capacity tank:* approx. 220 L
Electrical power supply: 2,2 kW - 400 V.
Maximum length of the pipe for carrying the mortar: 30 m with a maximum height of 15 m. Equipped with automatic water dosage system.

**** It is also available in the following version:**

ISOLCAP MACHINE HE H2O

For the set-up consult the technical data sheet.

POLITERM® PUMP with or without hopper

Mixing machine with pumping system for lightweight screeds consisting of virtual aggregates like virgin expanded polystyrene beads, recycled expanded polystyrene beads, perlite, vermiculite and cork, even when mixed with cellular foam. Pumping capacity up to 100 m in length and up to 30 m in height.
Available in the following types:
· *Electrical power supply:* 400 V.
· With hydraulic engine provided by external supply (e.g. trucks).

Customized fittings available on request.

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EQUIPMENT

POLITERM® MACHINE SCREW

Equipment for the mechanical addition of cement into the Politerm® machine tank.
Electrical power supply: 400 V.
Customized fittings available on request.

LEVELLING TOOL

Aluminium straight edge rail with handle for the spreading of lightweight screeds.

EDILSTIK BLOW MACHINE

Equipment for atomizing latex like Edilstik F.C.A.
Electrical power supply: 230 V / 50 Hz.

HIGH RESISTANCE RIGID METAL PIPE

This accessory improves the flowing of the mortar and avoids the risks of breaking and bursting the pipes while working. **Essential for pumping to heights greater than 10 meters.**
3 meters long pipes with flanges and rings for fixing to scaffolding.

METAL ELBOW FOR PIPES

Available with 45° and 90° elbow.
Weight 128 kg.

STEEL REINFORCED RUBBER PIPE

Pipes for pumping lightweight screeds with Politerm® Machine.
10 m long pipes complete with flanges.

LIGHT PLASTIC PIPE

Pipes for pumping lightweight screeds (end length) with Politerm® Machine.
10 m long pipes complete with flanges.

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ENTE NAZIONALE COMPAVIPER SOCIO

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EQUIPMENT

... it can also be applied with:

Plastering machines 220 V or 380 V, **PFT (G4-G5)** type - Pict. 1, or **IMER (Koine 3 - 220 V)** type - Pict. 2. The machines must have a (sloping or vertical) material loading from the hopper to the mixing chamber, and a helical mixer with double blade, in order to guarantee the introduction of the material in the mixing chamber to avoid risks of detachment between the polystyrene beads and binder.

pict.1

pict.2

The plastering machine shall be equipped with some accessories normally supplied by their manufactures for the use of insulating mortars.

In particular the following items are essential:

a. Helical mixer (solid screw - pict. 3 -).
b. Stator for insulating material (minimum capacity 30 litres - pict. 4 -).
c. Long pitch screw (rotor) (model D8/1,5 super screw conveyor - pict. 4 -).
d. Water pipe insertion in the lower connection of the mixing chamber.

pict.3

pict.4

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360° Insulation

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Consult our technical and application videos on the **Edilteco YouTube Channel . www.youtube.com/user/EDILTECOvideo**

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