ISOLCAP
lightweight thermal insulating ready to use base screeds and screeds

The first really lightweight and CE marked SCREED

THERMAL
Insulation & Chemicals Division

THERMAL INSULATION · REFURBISHMENT AND DEHUMIDIFICATION
LIGHTWEIGHT AND THERMAL INSULATING BASE SCREEDS

**ISOLCAP LIGHT 110**

Ready to use, superlight thermal insulating base screed.
Bag: 70 L yield / Yield: 1 m² at 7 cm thickness
Beads: fine grain size Ø 2 mm
Binder: pre-batched at 110 kg/m³
Pallet: 40 bags 70 L/each = 2.8 - 3.0 m³ yield (*)
Walkable: after 72 hours.

(*) According to the mixing method.

**ISOLCAP 250**

Ready to use, lightweight thermal insulating base screed.
Bag: 70 L yield / Yield: 1 m² at 7 cm thickness
Beads: grain size in curve Ø 3 - 6 mm
Binder: pre-batched at 250 kg/m³
Pallet: 40 bags 70 L/each = 2.8 - 3.0 m³ yield (*)
Walkable: after 24 hours.

(*) According to the mixing method.

**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 flooring).
Bag: 70 L yield / Yield: 1 m² at 7 cm thickness
Beads: fine grain size Ø 2 mm
Binder: pre-batched at 300 kg/m³
Pallet: 40 bags 70 L/each = 2.8 - 3.0 m³ yield (*)
Curing time before laying (**):
- ceramic tiles, stone or marble flooring: after 96 hours;
- floating wooden floor: after 7 days.

(*) According to the mixing method.
(**) Indication for 5 cm base screed and always according to the specific environmental conditions.

**ISOLCAP SPEED 525**

Ready to use, thermal insulating base screed.
Quick-drying, improved strength, high compact surface.
Bag: 70 L yield / Yield: 1 m² at 7 cm thickness
Beads: fine grain size Ø 2 mm
Quick-drying binder and granular particles: pre-batched at 525 kg/m³
Pallet: 40 bags 70 L/each = 2.8 - 3.0 m³ yield (*)
Curing time before laying (**):
- ceramic tiles, stone or marble flooring: after 24 hours;
- floating wooden floor: after 48 hours.

(*) According to the mixing method.
(**) Indication for 5 cm base screed and always according to the specific environmental conditions.

See the technical data sheets and application manuals.
**ISOLCAP XX 500**

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

- Bag: 70 L yield / Yield: 1 m² at 7 cm thickness
- Beads: fine grain size Ø 2 mm
- Binder and granular particles: pre-batched at 500 kg/m³
- Pallet: 40 bags 70 L/each = 2.8 - 3.0 m³ yield (*)

Curing time before laying (**):
- ceramic tiles, stone or marble flooring: after 5 days;
- floating wooden floor: after 10 days.

(*) According to the mixing method.
(**) Indication for 5 cm base screed and always according to the specific environmental conditions.

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**LIGHTWEIGHT AND THERMAL INSULATING SCREEDS**

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**ISOLCAP MAX 800**

Ready to use, thermal insulating screed.

- Bag: 50 L yield / Yield: 1 m² at 5 cm thickness
- Beads: fine grain size Ø 2 mm
- Binder and granular particles: pre-batched at 800 kg/m³
- Pallet: 40 bags 50 L/each = 2.0 m³ yield (*)

Curing time before laying (**):
- ceramic tiles, stone or marble flooring: after 6 days;
- floating wooden floor: after 12 days.

(*) According to the mixing method.
(**) Indication for 5 cm screed and always according to the specific environmental conditions.

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**NEW ISOLCAP "MINI"**

LESS WEIGHT / LESS TIME / LESS EFFORT

Ideal for:
- flat interventions
- interventions of small / medium quantity
- historic centre interventions
- “do-it-yourself”
- hard handling

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**CEMENTITIOUS SCREEDS**

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**KRONOS**

Ready to use mortar suitable for the production of quick drying screeds with controlled shrinkage.

- Bag: 30 kg
- Specific weight of the powder: approx. 1570 kg/m³
- Thermal conductivity $\lambda$: 1.35 W/mK
- Compressive strength (28 days): ≥ 25 N/mm²
- Flexural strength (28 days): ≥ 5 N/mm²
- Yield per 1 cm thickness: approx. 1.7 kg/m².

edilteco.com
**ISOLCAP READY TO USE MORTARS**

**ADVANTAGES**

ISOLCAP Ready to use mortars:

- Guarantee consistency and homogeneity of the dosages and of the thermal and mechanical characteristics.
- Do not shrink during the application or curing phase.
- Provide total dimensional stability of the mix over time. The screeds do not crack nor swell.
- The mixes can be pumped over long distances without causing any change in their physical or mechanical characteristics.
- Are lightweight, easy to apply and to transport.
- Are pH-controlled and non-corrosive, hence the mixes do not trigger reactions of any kind with the materials with which they come into contact.
- Are suitable to meet insulating performances required by the current standards.

**MAIN TECHNICAL DATA**

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>TECHNICAL DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dry density kg/m³</strong></td>
<td>110</td>
</tr>
<tr>
<td><strong>Volumetric mass (dry mortar) kg/m³ approx.</strong></td>
<td>130</td>
</tr>
<tr>
<td><strong>Use</strong></td>
<td>Base Screed</td>
</tr>
<tr>
<td><strong>Thermal conductivity λ D W/mK (</strong>)**</td>
<td>0,043</td>
</tr>
<tr>
<td><strong>Compressive strength 28 days N/mm²</strong></td>
<td>0,528</td>
</tr>
<tr>
<td><strong>Flexural strength 28 days N/mm²</strong></td>
<td>0,12</td>
</tr>
<tr>
<td><strong>Permeability to water vapour μ</strong></td>
<td>5,1</td>
</tr>
<tr>
<td><strong>Moisture resistance</strong></td>
<td>rotproof</td>
</tr>
<tr>
<td><strong>Specific heat J/kgK</strong></td>
<td>1000 **</td>
</tr>
</tbody>
</table>

(*) Conversion factor determining the value of the project [23°C, 80% R.H.]: + 13,3%. / (**) 1000 J/kgK = 0,24 kcal/kgK

**DETERMINATION OF THE THERMAL RESISTANCE “R” AND THERMAL TRANSMITTANCE “U” VALUES**

According to the application thickness (lightweight screeds and base screeds)

<table>
<thead>
<tr>
<th>PRODUCTS</th>
<th>THERMAL CONDUCTIVITY λ D W/mK</th>
<th>COEFFICIENT</th>
<th>THICKNESS cm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ISOLCAP LIGHT 110</strong></td>
<td>0,043</td>
<td>R m²K/W = (thickness mt/λ)</td>
<td>0,93</td>
</tr>
<tr>
<td><strong>ISOLCAP 250</strong></td>
<td>0,067</td>
<td>0,16</td>
<td>1,04</td>
</tr>
<tr>
<td><strong>ISOLCAP FEIN 300</strong></td>
<td>0,080</td>
<td>0,75</td>
<td>0,88</td>
</tr>
<tr>
<td><strong>ISOLCAP SPEED 525</strong></td>
<td>0,095</td>
<td>0,63</td>
<td>0,95</td>
</tr>
<tr>
<td><strong>ISOLCAP XX 500</strong></td>
<td>0,104</td>
<td>0,63</td>
<td>0,74</td>
</tr>
<tr>
<td><strong>ISOLCAP MAX 650</strong></td>
<td>0,149</td>
<td>0,74</td>
<td>0,96</td>
</tr>
<tr>
<td><strong>ISOLCAP MAX 800</strong></td>
<td>0,176</td>
<td>0,84</td>
<td>0,96</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PRODUCTS</th>
<th>THERMAL CONDUCTIVITY λ D W/mK</th>
<th>COEFFICIENT</th>
<th>THICKNESS cm</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ISOLCAP LIGHT 110</strong></td>
<td>0,043</td>
<td>U W/m²K = 1/R</td>
<td>1,07</td>
</tr>
<tr>
<td><strong>ISOLCAP 250</strong></td>
<td>0,067</td>
<td>0,71</td>
<td>1,12</td>
</tr>
<tr>
<td><strong>ISOLCAP FEIN 300</strong></td>
<td>0,080</td>
<td>0,61</td>
<td>0,95</td>
</tr>
<tr>
<td><strong>ISOLCAP SPEED 525</strong></td>
<td>0,095</td>
<td>0,48</td>
<td>1,36</td>
</tr>
<tr>
<td><strong>ISOLCAP XX 500</strong></td>
<td>0,104</td>
<td>0,48</td>
<td>1,49</td>
</tr>
<tr>
<td><strong>ISOLCAP MAX 650</strong></td>
<td>0,149</td>
<td>0,48</td>
<td>1,36</td>
</tr>
<tr>
<td><strong>ISOLCAP MAX 800</strong></td>
<td>0,176</td>
<td>0,48</td>
<td>1,36</td>
</tr>
</tbody>
</table>

(*) Ref. λ D

See the technical data sheets and application manuals.
**ISOLCAP MAIN APPLICATION FIELDS**

Internal and external.

- **INTERMEDIATE LAYER / FILLING**
  (on floor and/or basements):
  - Surface levelling
  - Beneath sand and cement screeds
  - Beneath self-levelling screeds
  - Beneath underfloor heating system (also with the direct application of radiant pipes)
  - Vaulted or waffle floor levelling
  - Beneath industrial flooring
  - Beneath driveable asphalt
  - Cavity wall insulation

- **SINGLE-LAYER SCREEDS**
  (on floor and/or basements) direct application of:
  - Ceramic tiles, stone or marble flooring and laying parquet floors
  - Parquet floors, after applying a thin-bed compound
  - Flexible flooring, after application of thin-bed levelling compound
  - Gradient formation on terraces

- **BUILDING ELEMENTS**
  - Blocks
  - Prefabricated wall panels

- **ROOFING**
  - Pitched roofs
  - Flat roofs with or without falls
  - Vaulted roofs
  - Corrugated steel sheet
  - Asbestos fibre cement (encapsulation)
  - Direct application of waterproofing membranes

- **BENEATH ASPHALT DRIVeways AND FLOORING**

- **Laying of acoustic mats**
- **Impact sound measurement**

The base screeds prepared with the products ISOLCAP are perfectly stable. Therefore they are the ideal laying surface for any type of acoustic insulation. Their performance is unaffected over time.
### Lightweight Base Screeds and Screeds

#### Synopsis Table of the Applications

**Intermediate Layer / Filling / Surface Leveling:**

<table>
<thead>
<tr>
<th></th>
<th>Isolcap Light 110</th>
<th>Isolcap 250</th>
<th>Isolcap Fein 300</th>
<th>Isolcap Speed 525**</th>
<th>Isolcap XX 500</th>
<th>Isolcap Max 650</th>
<th>Isolcap Max 800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface levelling</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Beneath sand and cement screeds</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Vaulted floor levelling</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Beneath self-levelling screeds</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>For underfloor heating system</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Beneath industrial floor</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Beneath asphalt driveways mantles</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Surface Leveling:**

*yes* denotes surface levelling capability.

**Beneath Sand and Cement Screeds:**

*yes* denotes suitability for use beneath sand and cement screeds.

**Vaulted Floor Levelling:**

*yes* denotes suitability for use in vaulted floors.

**Beneath Self-Levelling Screeds:**

*yes* denotes suitability for use beneath self-levelling screeds.

**For Underfloor Heating System:**

*yes* denotes suitability for underfloor heating systems.

**Beneath Industrial Floor:**

*no* denotes unsuitability for use beneath industrial floors.

**Beneath Asphalt Driveways Mantles:**

*no* denotes unsuitability for use beneath asphalt driveways mantles.

**Roofing:**

<table>
<thead>
<tr>
<th></th>
<th>Isolcap Light 110</th>
<th>Isolcap 250</th>
<th>Isolcap Fein 300</th>
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<th>Isolcap Max 650</th>
<th>Isolcap Max 800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pitched roofs</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Flat roofs without falls</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Flat roofs with falls</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Vaulted roofs</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>In corrugated steel</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Asbestos fibres cement encapsulation</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

**“Piano Zero” for Direct Application of Floor Covering:**

<table>
<thead>
<tr>
<th></th>
<th>Isolcap Light 110</th>
<th>Isolcap 250</th>
<th>Isolcap Fein 300</th>
<th>Isolcap Speed 525**</th>
<th>Isolcap XX 500</th>
<th>Isolcap Max 650</th>
<th>Isolcap Max 800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single layer for ceramic, gres, clinker</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Smoothing mortar for parquet</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Layer for linoleum</td>
<td>no</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

**Benefits:**

- **Low Environmental Impact:**
  - Better thermal insulation.
  - Lower fuel consumption during the transport due to its low weight.
  - Higher thermal insulation value; lower volumes at equal thermal performances.
  - Several production centres in Italy.

- **Low Density:**
  - Less weight and load on structures.

- **Ductility:**
  - Less water required during the preparation.
  - Less water absorbed during the mixing.
  - Easy to mix and pump.
  - Easy and fast application.
  - Easy transportation (lightweight).

- **Safe Home:**
  - It improves the structural resistance of the building in case of earthquakes.
  - Fire resistance: A2-s1,d0 (starting from 200 kg/m³).

- **Product with Low Environmental Impact:**
  - Little energy used in production and transportation, a lot of energy saved, thanks to its thermal performances.

**Means of Application:**

**Lightweight Base Screeds and Screeds**

**It Can Be Mixed With:**

<table>
<thead>
<tr>
<th></th>
<th>Isolcap Light 110</th>
<th>Isolcap 250</th>
<th>Isolcap Fein 300</th>
<th>Isolcap Speed 525*</th>
<th>Isolcap XX 500</th>
<th>Isolcap Max 650</th>
<th>Isolcap Max 800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drill mixer</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Concrete mixer</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Horizontal mixing machine e.g. &quot;Turbomalt&quot;</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
</tbody>
</table>

**It Can Be Mixed and Pumped at the Laying Surface With:**

<table>
<thead>
<tr>
<th></th>
<th>Isolcap Light 110</th>
<th>Isolcap 250</th>
<th>Isolcap Fein 300</th>
<th>Isolcap Speed 525*</th>
<th>Isolcap XX 500</th>
<th>Isolcap Max 650</th>
<th>Isolcap Max 800</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isolcap machine [see equipments]</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Politerm® machine [see equipments]</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Plastering machine</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Pump for bases e.g. &quot;Turbosol&quot;</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>Truck mixer and concrete pumps</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>220V single-phase equipment</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td>New! Isolcap Mixer 50</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

(*Isolcap Speed 525 is a quick drying product and for this reason it must be always used within maximum 15 minutes from the mixing time, taking into consideration in any case the climatic conditions, like temperature and air humidity (see also technical data sheet). Please do not hesitate to contact Edilteco Technical Department for any kind of information.*
SPECIFIC EQUIPMENT
ISOLCAP RANGE

POLITERM® MACHINE 1000 ECO
Entirely stainless steel equipment for the mixing and pumping of screeds and lightweight screeds composed of fine-grain materials such as virgin expanded polystyrene beads, recycled 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 the regulation of noise pollution.
Available with tank:
- from 1 m³

* 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.

POLITERM® MACHINE SCREW
Equipment for the mechanical addition of cement in Politerm® Machine tank.
Electrical power supply: 400 V.
Customized fittings available on request.

ISOLCAP MIXER 50
Compact mixer, lightweight and silent.
Ideal to be used in small building sites and for refurbishment works.
Tank capacity: 56 L.
Electrical power supply: 230 V.

ISOLCAP MACHINE H2O
Entirely stainless steel equipment for the mixing and pumping of screeds and lightweight screeds (in particular the isolcap range products) composed of fine-grain materials like virgin expanded polystyrene beads, recycled expanded polystyrene beads, perlite, vermiculite, cork and self-leveling mortars (both cement or anhydrite based).

Weight: 320 kg. Capacity tank: 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 setting up, please consult the technical data sheet.

LEVELLING TOOL
Aluminium straight edge with handle for the spreading of lightweight screeds on the laying surface.

COMPLEMENTARY PRODUCTS

EDILSTIK
Synthetic latex to improve the properties of the cement mortars. To be used in the laying of single-layer lightweight screeds (Piano Zero system) to promote the adhesion to the receiving surface and for the preparation of very thin smoothing screeds (1 - 2 mm) for surfaces protection.

EDILSTIK F.C.A.
Pigmented synthetic latex for temporary stabilization of asbestos fibre cement sheets (“Type O” certificate).
Packaging: Tank 5 kg / Tank 20 kg / Tanks on pallet 1000 kg.

PIANO ZERO PROFILES
PVC guide rails for setting accurate levelling of the base screed. They are particularly suitable for single-layer lightweight screeds. The special cross-section design allows them to be securely fixed and held within the screed. They are very stable providing excellent alignment and preventing the formation of thermal bridges.

AUTOLIV Smoothing base screed
Ready to use self-levelling mineral mortar in powder, for manual or mechanical application. It is suitable for the high resistant levelling of base screeds prepared with Politerm® Blu and Isolcap (consult Edilteco application manual), before the application of ceramic tiles, porcelain, marble, natural stone and parquet.

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EDILTECO, AN INTERNATIONAL SUCCESS

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

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360° Insulation

Edilteco is associated with: