



POLITERM[®] BLU READY MIX

**SUPERLIGHT FINE-BEAD AGGREGATE TO PREPARE
LIGHTWEIGHT THERMAL INSULATING CEMENT MORTARS**

POLITERM[®] BLU READY MIX Superlight fine-bead aggregate to prepare lightweight thermal insulating cement mortars

PRODUCT	Superlight fine-bead aggregate to prepare lightweight thermal insulating cement mortars. Specific to be mixed in concrete mixer and pumped with concrete pump.
COMPOSITION	Closed-cell virgin expanded polystyrene beads with fine grain-size (Ø 3 - 6 mm), perfectly spherical, controlled density, non-toxic, nonabsorbent, rotproof, dimensionally stable over time, chlorofluorocarbon free production (CFC, HCFC and HFC), free of nutritional values able to sustain growth of fungi and bacteria. During production the beads are mixed with a specific E.I.A. additive which allows a perfect mixing with the water binder, eliminates the bead floating phenomenon and guarantees their homogeneous distribution in the mix.
PACKAGING AND STORAGE	<ul style="list-style-type: none"> · Bag of 500 L (n° 2 bags = 1 m³ of finished mortar). · Store away from frost and direct sunlight.
APPLICATION FIELDS	<ul style="list-style-type: none"> · Base screeds for basements and pilot floors, space between floors, roofs and wooden floors. · Single-layer screeds for direct gluing of floor coverings, basements and pilot floors, space between floors, and roofs and wooden floors (consult the "Politerm[®] Blu - Piano Zero" Application Manual). · Formation of gradients on terraces and flat roofs, also with subsequent direct laying of waterproofing layers (prefabricated: hot or cold bituminous and synthetic/ liquid, solvent-free). · Insulation of unwalkable attics. · Insulation of pitched roofs, also with subsequent direct laying of waterproofing layers (prefabricated: hot or cold bituminous and synthetic / liquid, solvent-free). · Filling of vaults, also very thick. · Confinement of roofs in asbestos cement fibre sheets, also with subsequent direct laying of waterproofing layers (prefabricated: hot or cold bituminous and synthetic/ liquid, solvent-free). · Synthetic/ liquid, solvent-free. · Base screeds for industrial flooring.
CONSUMPTION / YIELD	To obtain 1 m ³ of finished mortar the following is required. N° 2 bags of Politerm [®] Blu Ready Mix + water + cement + sand (if necessary*). * see prescribed dosage.
PREPARING THE LAYING SURFACE	<p>The laying surface must always be clean and free of dust and fragments of any kind.</p> <ul style="list-style-type: none"> · Cement and brick-cement laying surfaces or in any case absorbent: abundantly wet the surface, but do not leave puddles. · Low absorbent laying surfaces (very dense cement surfaces, etc.): treat the laying surface with adhesion promoter (type Edilstik) before casting the mortar prepared with Politerm[®] Blu and work fresh on fresh, or make an adhesion bridge with cement grout hydrated with water and Edilstik, or use suitable anchorage primer. · Non-absorbent laying surfaces (sheaths, metal, ceramic, insulating sheets, etc.): before casting the mortar prepared with Politerm[®] Blu Ready Mix, lay an electro welded net at a due distance from the laying surface (positioned at least at a third of the final thickness of the casting to be carried out). · Single-layer screeds for direct gluing of floor coverings: it is recommended to lay some special pvc guides called Piano Zero.



Thermal Insulation & Chemicals Division



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Use only good quality CEM I or CEM II limestone cement for the mixes according to the EN UNI law and in perfect conservation conditions. The different types of cement, or their poor quality, may affect the functionality of E.I.A. additive, which coat Politerm® Blu beads, making the mixing difficult and affecting the final characteristics of the mortar.

Dosage to obtain 1 m³ (1000 L) of lightweight thermal insulating mortar:

DENSITY kg/m ³	WATER L	CEMENT PORTLAND 32.5 or CEM I o CEM II kg	POLITERM® BAG approx. 500 L	SAND kg
approx. 215	80 - 100	200	2	-
approx. 265	100 - 125	250		
approx. 315	125 - 150	300		
approx. 365	140 - 175	350		
approx. 400	140 - 150 *	300		
approx. 500	140 - 150 *	300		
approx. 900	155 *	300	<2 (640 L)	550

* more hydrated sand (depending on the sand's remaining moisture).

Preparation in concrete mixer (order of preparation):

1. Water: all the necessary water for the mix, less of 20 - 30 L (see point 7);
2. Politerm® Blu Ready Mix;
3. Mix for 10 minutes at the maximum speed;
4. Cement;
5. Sand (if necessary);
6. Mix for 10 minutes at the maximum speed;
7. Clean the cup load with approx. 20 - 30 L of water (therefore completing the water dosage of the mix - see point 1);
8. Add additional water according to the residual moisture of the inserted sand;
9. During the way concrete batching plant-building site, the mixer has to rotate at the maintenance speed. Once arrived on site, after any further addition of water, the rotation time of the mixer at maximum speed is of 1 min. per m³ of mix.
10. For the correct pumping consult "The Application Manual" or contact *Edilteco Technical Department*.

· **Use of antifreeze:** at temperatures under +5 °C it is recommended to add liquid antifreeze to the dosage recommended by the manufacturer. Any use of antifreeze additives is compatible with the physical-chemical properties of Politerm® Blu Ready Mix.

· **Single-layer screeds for direct gluing of floor coverings:** consult the "Politerm® Blu Application Manual - Piano Zero" or contact *Edilteco Technical Department*.

MIXING AND APPLICATION

WARNINGS

- **Minimum pumping density: 250 kg/m³.**
- Do not apply with temperatures under +5 °C or under the direct light of the sun or with temperatures over +35 °C. If the application is made under the direct light of the sun, necessary precautions must be taken (e.g. net or similar that covers the scaffolding).
- It is recommended to lay edge strips of acoustic insulation wider than the floor covering.
- **Minimum thickness.**
Absorbent surface: minimum 5 cm. In case of sub-thickness consult "The Application Manual" or contact *Edilteco Technical Department*.
Non-absorbent surface: consult "The Application Manual" or contact *Edilteco Technical Department*.
- For the detailed methods of use and application consult "The Application Manual" or contact *Edilteco Technical Department*.



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TECHNICAL CHARACTERISTICS	CHARACTERISTIC	FORMULA kg/m ³				NORM
		200	250	300	350	
	Mass after 28 days kg/m ³ :	approx. 215	approx. 265	approx. 315	approx. 365	-
	Thermal conductivity λ W/mk:	0,065	0,067	0,080	0,103	-
	Compressive strength N/mm ² *:	0,69	0,83	1,61 ^(*)	1,69	UNI EN 1015-11:2007
	Flexural strength N/mm ² *:	0,37	0,46	0,95 ^(*)	0,59	UNI EN 1015-11:2007
	Cohesion kPa:	82,62	82,62	127,17	n.d.	-
	Hot-sealed membrane rupture N/50 mm:	57	n.a.	62	21,28	-
	Cold-sealed membrane rupture N/50 mm:	35	n.a.	47	13,00	-
	Elasticity module N/mm ² :	235,3	n.a.	489,5	n.d.	-
	Factor of resistance to water vapour diffusion μ:	10,11	11,50	12,00	21,04	-
	Specific heat kJ/kgK:	1,40	1,40	1,40	1,40	-
	Shrinkage (NBN) mm/m:	0,427	n.a.	0,352	0,270	-
	Impact sound insulation ΔL- noise reduction at 500 Hz:	n.a.	14 dB thick. 5 cm	21,5 dB with mat.	n.a.	-
	Impact sound pressure level measurement L'nT,w (C ₁):	n.a.	61 dB thick. 11 cm	n.a.	n.a.	UNI EN ISO 717-2
	Fire reactivity:	A2-s1,d0				UNI EN 13501-1
* IMPORTANT: for methods of use and application consult "The Application Manual".						

All the indications provided in this technical data sheet are purely approximate and not binding for legal purpose. The data listed has been gathered from laboratory tests and it hence follows that in practical applications on building sites the final characteristics of the products may be subject to substantial variations depending on the meteorological conditions and the installation. The user must always check suitability of the product for its specific use, undertaking all liability implicit in and deriving from use of the product, as well as comply with all methods and instructions for use generally referable to "workmanlike" execution. Edilteco S.p.A. reserves the right to change the contents of this mechanical data sheet on its final judgements. The spreading of this data sheet through any media, supersedes and cancels the validity of any other technical data sheet previously published.



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