

## Ultra-light aggregates for the preparation of lightweight thermal insulating mortars

### Description

**Politerm® Blu** is the best option for concrete mixes for its thermal properties that allows creating uniform and docile mixes.

It is made by virgin EPS beads with closed cells (3-6 mm), which are perfectly rounded, with a controlled density, non-toxic, resistant, and stables throughout the time. They are covered by EIA additive that gives an excellent adherence to concrete, eliminates floatation on beads that guarantees the uniform mix on concrete.

**Politerm® Blu** production is free of chlorofluorocarbon (CFC, HCF and HFC) and does not have nutritional properties that may contribute to bacteria generation.

### Advantages

- Beads perfectly mixed on concrete with water.
- Excellent bead distribution on concrete mixes.
- Compatible with concrete pumps.
- Avoids floatation.
- Adds thermal properties to the mix.
- No unnecessary weight is added to the structure, when filling with light mortars.



### Main Applications

- Filling slabs, rooftops, floors, mezzanines, etc.
- Perfect to use as a base to receive asphalt, and industrial flooring.
- Create prefabricated walls, blocks or bricks.
- Insulate walls, slabs, floors, etc.

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## Surface set up

- Surface should be always free of dust and any other fragments of material.
- On absorbent surfaces, humidify considerably without creating puddles.
- On low absorbent surfaces, humidify, and it is recommended and make a bridge of adherence with a light cap of cement and water.
- On non-absorbent surfaces, before set the mix, place and affix electro welded mesh, separated from surface.
- It is recommended to mark the thickness of the slab to keep the same level in all surfaces.

## Mix

Use only Portland cement, with good qualities and good conservation. Using different types of cement, or low quality cement may invalidate the function of EIA additive making more difficult the mix and the concrete may be out of specifications.

Mix materials order:

1. Turn on the mixer
2. Add water according to the specification
3. Add beads of **Politerm® Blu** (Bags of 170 and 420 liters.)
4. Add the amount of cement required.
5. Add sand (if applies).
6. Mix for 10 minutes.

(Contact the FANOSA® Technical Department).

Dosage for 1 m <sup>3</sup> of light mortar						Properties				
Density <sup>(1)</sup>	Water <sup>(2)</sup>	Cement	Sand		Politerm® Blu	Thermal Conductivity		Thermal Resistance, per 1 in thickness		Compressive Resistance
(lb/ft <sup>3</sup> )	(liters)	(lb)	(lb)	(liters)	(liters)	(W/m·K)	(BTU·in/h·ft <sup>2</sup> ·°F)	(m <sup>2</sup> ·K/W)	(h·ft <sup>2</sup> ·°F/BTU)	(psi)
12.5	100	440.9245244	0	0	840	0.065	0.450675667	0.390769231	2.218890598	100.076039
15.625	125	551.1556555	0	0	840	0.067	0.46454261	0.379104478	2.152655058	120.3813223
18.75	150	661.3867866	0	0	840	0.08	0.554677744	0.3175	1.802848611	233.5107578
21.875	175	771.6179177	0	0	840	0.103	0.714147595	0.246601942	1.400270766	245.1137768
31.25	140 <sup>(3)</sup>	661.3867866	352.73962	100	840	0.1045	0.724547803	0.243062201	1.380171185	324.8845325
50	160 <sup>(3)</sup>	661.3867866	992.08018	285	680	0.1765	1.223757772	0.143909348	0.817155178	725.1886887
56.25	160 <sup>(3)</sup>	661.3867866	1212.54244	350	640	0.184	1.275758811	0.138043478	0.783847222	836.8677467
62.5	165 <sup>(3)</sup>	661.3867866	1433.0047	415	600	-	-	-	-	1257.477186
75	190 <sup>(3)</sup>	881.8490488	1653.46697	475	510	0.329	2.281112222	0.077203647	0.438382641	1451.827755
112.5	195 <sup>(3)</sup>	881.8490488	2976.24054	855	300	-	-	-	-	2706.404186
125	200 <sup>(3)</sup>	881.8490488	3306.93393	950	240	-	-	-	-	3031.288719

\* Water dosage has to be adapted to the type of cement that will be used.

\*\* Adjust according to the humidity of sand.

(a) Values obtained with 5 cm of Politerm® Blu + 5cm of mortar.

All the indications in this document are approximate and no linked to legal purposes. The data shown was obtained by laboratory test, and therefore in practical applications. The final features of these products are subject to substantial variations depending of meteorological conditions and facilities. The user should check the product suitability assuming all responsibility for product used as well as comply with respective regulations. **FANOSA S.A. de C.V.** reserves the right of change the content on this document without previous advice. The official diffusion of another technical sheet, through any way, will make invalid this document or any other previously published.

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