



## Politerm Blu<sup>®</sup>

Mixing and placing  
instructions



PROUDLY MADE  
IN SOUTH AFRICA

## DESCRIPTION

Politerm Blu® is a pre-manufactured product which consists of expanded polystyrene (EPS) beads that are pre-treated. This treatment allows the effective mixing of the beads with water and cement in order to produce a mortar which is laid to falls as a thermal insulating roof screed.

Politerm beads mix easily with cement and water, without floating and separation, provided the mixing instructions are followed, Politerm beads mix easily with cement and water, without floating and separation.

## MIXING

The material must be mechanically mixed in either a conventional concrete/mortar drum mixer, concrete truck mixer or purpose made Politerm PM1000 mixer/pump.



### PREPARATION WITH CEMENT MIXER

Prepare with the drum moving  
To obtain 200 litres of finished mortar:

1. Water (\*)
2. Politerm Blu® (1 bag of 170 litres)
3. Cement (\*)
4. Continue the drum in as horizontal as possible
5. Pour the mortar.



### PREPARATION WITH TRUCK MIXER

1. Water: as much as required for the mix (\*) less 20 - 30 litres (see point 7)
2. Politerm Blu®
3. Mix for about 10 minutes at maximum speed;
4. Sand if necessary(\*);

5. Cement (\*)
6. Mix for about 10 minutes at a maximum speed
7. Clean the loading bowl with about 20 - 30 litres of water (thus completing dosage of the mixing water)
8. Depending on the residual moisture in the sand, add more water
9. On the way from the batch plant to the building site the cement mixer must turn at the top speed for the first 20 minutes and then at minimum speed.



### PREPARATION WITH POLITERM MACHINE

To obtain 1m<sup>3</sup> of finished mortar:

1. Water (\*)
2. 1st 420 litre bag of Politerm Blu®
3. Cement (\*)
4. 2nd 420 litre bag of Politerm Blu®
5. Continue mixing for 5 minutes
6. Pump to the laying floor
7. Plaster sand (optional) to increase density and compressive strength

When applying the above mix to a concrete roof slab the concrete should first be saturated with clean water and not allowed to dry out prior to the application of the Politerm Blu® screed. Ponding of water should not be allowed.

### PLACING

The Politerm Blu® screed mix should be "laid to falls" to rainwater outlets at a minimum thickness of 50 mm. The maximum thickness will be determined by the distance of the fall.

The use of steel or timber guides is recommended to ensure accuracy and enable the use of a straight-edge to strike off the mortar. Floating of the surface is not possible. A smooth finish for waterproofing can be achieved by:

- (a) Trowelling in a thin skim of sand and cement prior to setting, or
- (b) Allow the Politerm screed to harden and sand off the surface with a disc sander, removing the resultant dust before waterproofing\*.



## CURING

In accordance with good concreting practice the Politerm Blu® screed should be kept damp by spraying with water to prevent rapid drying out; however, the screed should be allowed to dry out before application of waterproofing to avoid entrapment of excess moisture. The density of Politerm Blu® mixes can be varied to suit different applications such as under-surface bed insulation, void filling etc.

Please contact us regarding applications other than the thermal insulation screed described above.

## DOSAGES AND THE YIELDS OF THE PRODUCTS USING POLITERM BLU®

### DOSAGES TO OBTAIN 1M<sup>3</sup> OF LIGHTWEIGHT INSULATING MORTAR

Density kg/m <sup>3</sup>	Approximately litres of water*	Cement (kg)*	420 litre bag of Politerm Blu®
200	+/- 80 -100	200	2
250	+/- 100 -125	250	2
300	+/- 120 -150	300	2
350	+/- 140 -175	350	2

\*Use only Portland 32.5R Cement

## DOSAGES AND THE YIELDS OF THE PRODUCTS USING POLITERM BLU®

### DOSAGES TO OBTAIN 200 LITRES OF LIGHTWEIGHT INSULATING MORTAR

Density kg/m <sup>3</sup>	Approximately litres of water*	Cement (kg)*	170 litre bag of Politerm Blu®
200	+/- 16 -20	40	1
250	+/- 20 -25	50	1
300	+/- 24 -30	60	1
350	+/- 28 -35	70	1

## PREPARATION OF LIGHTWEIGHT THERMAL INSULATING MORTARS MADE WITH POLYTERM BLU® READY MIX IN A TRUCK MIXER

### DOSAGES TO OBTAIN 1m<sup>3</sup> OF LIGHTWEIGHT INSULATING MORTAR

Density kg/m <sup>3</sup>	Approximately litres of water*	Cement (kg)*	170 litre Politerm Blu® Bag	Sand kg
200	+/- 80 -100	200	5 Bags	/
250	+/- 100 -125	250	5 Bags	/
300	+/- 120 -150	300	5 Bags	/
350	+/- 140 -175	350	5 Bags	/
400	100-120	250	6 Bags	125
500	+	300	5 Bags	160
900	Sand hydration (**)	300	4 Bags	550

\*\* Also dependent on the actual residual moisture in the sand used.



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