



## Technical Data Sheet

# ASOPLAST-MZ

Art.-No. 2 02222

## Bonding emulsion – additive for screeds and mortars – protection for green concrete

### Properties:

- Solvent free
- Free from acetates and diluents
- Free from chloride ions
- No corrosion causing components
- Plasticizing
- Concentrate
- For interior and exterior use

### Areas of application:

ASOPLAST-MZ is used for producing polymer modified mortars, bonding coats, splatterdash coats, tough renders, enhanced screeds, grouts and adhesives as well as coved fillets:

- For levelling and patching mortars down to the thinnest of coats.
- For producing floor toppings with increased freedom from dust and cracks as well as increased flexibility.
- As a bonding aid with splatterdash coats.
- To improve the bond, flexibility and freedom from cracks in renders.
- As a bonding and barrier coat for mortar bases in concrete construction joints e.g. between floor slabs and walls (coved fillet mortar).
- For wear resistant toppings in hydraulic engineering constructions, sewerage pipes, sewerage works etc.
- For pointing masonry work.
- As an adhesive for anchoring slabs – ceramic, natural and agglomerate stone - as well as insulation panels and lightweight construction boards.
- As an additive to improve the bond and resilience of coloured lime and cement-based coatings.
- For producing mortars with increased chemical resistance.
- As a protective coat for fresh concrete, ASOPLAST-MZ impedes early drying out of green concrete.

ASOPLAST-MZ imparts increased adhesion strength, improved flexural strength, greater elasticity, better water resistance, reduced permeability to water and increased chemical resistance to the cured mortar.

### Technical Data:

Basis:	Styrene-butadiene polymer emulsion
Specific gravity:	approx. 1.0 g/cm <sup>3</sup>
Colour:	white
Consumption:	dependent on application, stir before use
Storage:	frost free, 24 months in the original unopened container. Use opened containers promptly.
Application / substrate temp.:	+5° C to +25° C
Packaging:	1, 5, 10 and 25 kg containers

### Substrate preparation:

The substrate must be load-bearing, clean, solid and free from mould release oil residues and cement films etc. Completely remove contamination such as oils, greases, rubber marks etc possibly by abrasion or sand blasting. Remove any loose areas and laitance. Evenly pre-wet absorbent substrates until saturated (avoid puddle formation).

### Product preparation:

Only use clean washed aggregates with a good particle size distribution for producing the polymer mortar.

The grain size is to be adjusted to suit the thickness of the surface finish e.g.:

Up to 2 mm	diameter 0 – 0.5 mm
2 – 5 mm	diameter 0 – 1.0 mm
5 – 15 mm	diameter 0 – 2.0 mm or 0 – 4.0 mm
Above 15 mm	diameter 0 – 8.0 mm

Firstly mix dry, then add the ASOPLAST-MZ and water solution and thoroughly mix for 2 minutes. Apply more layers the greater the final thickness. As a rule apply wet mortar to wet mortar. Never use the ASOPLAST-MZ and water solution neat as if it dries too quickly a separating film can form.

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## Bonding coat / bonding slurry:

Note the following when rendering over difficult substrates, waterproofing renders, waterproofing slurries, patch repairs, levelling mortars, floor toppings, between old and new concrete:

Mix solution: ASOPLAST-MZ with water 1:1 to 1:3  
Dry mix: cement and sand 1:3  
Grain size: 0 – 4 mm dependent on coating thickness  
Consumption: 2.3 – 3.0 kg/m<sup>2</sup> and cm thickness

### a) Splatterdash bond coat:

Prepare the mortar and spray it to a thickness of 4 – 5 mm.

Build-up further layers using conventional rendering techniques following the usual specifications and with pre-blended mortars following the manufacturer's directions.

### b) Bonding slurry for bonded cement-based screeds:

Dilute ASOPLAST-MZ 1:1 with water. Then mix this solution with the screed mortar to a slurry consistency. Using a paint brush, broom or roofers broom work the bonding coat produced into the dampened substrate and then install the cement-based screed whilst the slurry is still wet.

## Levelling, patch repair and packing mortar:

Mix solution: ASOPLAST-MZ with water  
For thicknesses below 10 mm 1:3  
For thicknesses above 10 mm 1:5

Dry mix: cement and sand 1:2 to 1:4  
Greater chemical resistance, especially against urea, ammonia and dilute alkalis, is achieved with a fatter mix solution e.g. ASOPLAST-MZ: water 1:2.  
Grain size: 0 – 4 mm dependent on thickness of layer

Consumption: 0.7 – 1.5 kg/m<sup>2</sup> and cm thickness  
Apply the stiff plastic mortar on to the well pre-wetted substrate. A bonding coat is necessary (see above) on heavy duty areas as well as on very smooth substrates.

## Floor toppings, wear resistant toppings in hydraulic engineering construction, sub-bases:

Mix solution: ASOPLAST-MZ with water  
For heavy duty use 1:1 to 1:2  
For normal use 1:2 to 1:4

Dry mix: cement with sand 1:2 to 1:3  
Grain size: 0 up to max 8 mm, dependent on thickness of layer  
Consumption: 0.4 – 0.9 kg/m<sup>2</sup> dependent on thickness of layer

The semi-dry mortar is applied wet in wet in layers from 15 – 30 mm, well compacted and rubbed down in accordance with usual application specifications. Note the position of shrinkage control joints and movement joints.

## Renderers:

### a) Standard lime-cement renders

Mix solution: ASOPLAST-MZ with water 1:2 to 1:4  
Dry mix: binder with sand 1:2.5 to 1:4  
Grain size: 0 - 4 – 0 - 8 mm  
Consumption: 0.3 – 1.1 kg/m<sup>2</sup> and cm thickness

### b) Rendering insulation panels

Mix solution: ASOPLAST-MZ with water 1:2  
Dry mix: binder with sand 1:3  
Grain size: 0 - 4 mm  
Consumption: 0.7 – 1.0 kg/m<sup>2</sup> and cm thickness

The splatterdash coat is applied in accordance with the instructions under the splatterdash section. The base coat is applied to the hardened splatterdash coat to usual rendering regulations. ASOPLAST-MZ is added to the base coat where better adhesion, increased flexibility, reduced tendency for shrinkage cracks and reduced permeability to water is required.

## Smoothing coat and levelling exposed concrete:

Mix solution: ASOPLAST-MZ with water 1:3 to 1:5  
Dry mix: cement with sand 1:3  
Grain size: 0 – 1 mm  
Consumption: 0.7 – 1.3 kg/m<sup>2</sup> and cm thickness  
Thoroughly clean and pre-wet the substrate. Prepare the mix previously described to a trowelable consistency. Firstly prepare the bonding coat and thoroughly brush in with a brush or broom. Then immediately apply the mortar described above into the wet bonding coat using a trowel or rubber float, rub up with a hand float and smooth with a steel trowel.

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## Special mortar:

Mix solution: ASOPLAST-MZ with water 1:3 to 1:5  
Dry mix: cement with sand 1:2 to 1:3  
Grain size: 0 – 8 mm  
Consumption: 0.6 – 1.1 kg/m<sup>2</sup> and cm thickness  
For bridging over construction joints between concrete sections prepare the above mix to a stiff consistency and apply to the clean, pre-wetted substrate at a thickness up to 5 mm immediately before installing concrete. When using shuttering, this must be sealed. The construction joint so produced is to be carefully covered in concrete and compacted as usual.

## Adhesive, grout and coved fillet mortar:

a) For rigid joints in concrete and masonry construction.  
Mix solution: ASOPLAST-MZ with water 1:2 to 1:4  
Dry mix: cement with sand 1:2 to 1:3  
Grain size: 0 – 2 with increased fines up to 0.2 mm  
Consumption: 0.7 – 1.9 kg/m<sup>2</sup> and cm thickness  
Prepare the mortar to a paste consistency and push into the joints with a trowel, gauging trowel or pointing trowel.

b) Bonding insulation panels and lightweight construction boards

Mix solution: ASOPLAST-MZ with water 1:1  
Dry mix: cement with sand 1:3  
Grain size: 0 – 2 mm  
Consumption: 1.4 – 1.9 kg/m<sup>2</sup> and cm thickness  
Apply 'blobs' of the plastic mortar or a full bed with a trowel or notched trowel and push in the boards/panels.

## Addition to coloured lime and cement coatings:

Mix solution: ASOPLAST-MZ with water 1:1  
Consumption: approx. 0.1 to 0.2 kg/m<sup>2</sup>  
Use the above mix solution as a replacement for water. This imparts increased adhesion and resistance to wiping as well as improved weathering to the coating.

## Finishing for all types of application:

During the first 5 days, protect renders, floor toppings, patching and levelling mortars etc from drying out too quickly, due to wind and sunshine, by covering with polythene or repeatedly wetting. Also protect from frost.

## Evaporation protection for concrete:

After diluting (1 part ASOPLAST-MZ – 2 parts water) apply by spray or brush. Application should take place as soon as the setting process has commenced but the surface is free from water.

Material consumption: 50 – 70 g/m<sup>2</sup> undiluted ASOPLAST-MZ

## Advice:

- Always mechanically mix ASOPLAST-MZ (not longer than 2 minutes).
- Neat ASOPLAST-MZ without cement and sand is not suitable as a bonding coat as a separating layer can form due to premature film formation.
- ASOPLAST-MZ solutions diluted at a ratio greater than 1:5 (MZ:water) provide the mortar with too little polymer so that the mortar properties are scarcely improved.
- ASOPLAST-MZ is not resistant to continuous contact with petrol and organic solvents (use ASODUR mortars).
- When using ASOPLAST-MZ, trade application regulations must be followed the same as if conventional mortars were being applied.
- Use clean sand with a suitable particle size distribution (grading).
- Always use the least amount of mix water possible.
- When applying multi-layers, always apply wet in wet.
- Mortar that has already started to stiffen should not be re-lifted by adding more water or fresh mortar as there is a risk of inadequate strength development.
- Protect areas to which ASOPLAST-MZ will not be applied.
- Wash off splashes immediately.
- Protect from rapid drying.
- Protect from wind and extremes of temperature.

Please observe a current valid EU Health & Safety Data Sheet

GISCODE: D1