



Technical Data Sheet

ASOPLAST-MZ

Art.-No. 2 02222

Adhesion Agent - Screed and Mortar Additive

Properties:

ASOPLAST-MZ is an unsaponifiable adhesion agent, free from acetate and softening agents. It is non-corrosive. ASOPLAST-MZ increases the bonding strength of the hardened mortar, as well as its flexural tensile strength, has an increased elasticity and water resistance, is also highly resistant against chemicals. Additionally, it is highly resilient and decreases the water permeability.

Areas of application:

With addition of ASOPLAST-MZ a polymer modified mortar can be achieved, which can be used for example as a bonding layer, shotcrete, tough hard plaster, improved screed, jointing and bonding mortar and as mortar for concave mouldings:

- For levelling and patch mortars, extensible to very thin coatings.
- For the production of floor sealer with improved dust resistance, flexibility and crack resistance.
- As a bonding agent in shotcrete.
- As an improvement in the bonding, flexibility and crack resistance of plaster mortars.
- For mortar applications as bonding and impervious layer in concrete construction joint, e. g. between concrete slab and wall (mortar for concave mouldings).
- For hardwearing coverings in water construction, sewer, sewage plants.
- As improvement of the bonding of plaster on insulation boards.
- As jointing material for masonry.
- As bonding mortar for the fixing of plates made of ceramic, natural stone, cast stone as well as insulation and light construction plates
- As an additive to improve the bonding strength and resistance of lime and cement paints.
- For the production of cement mortars with improved chemical resistance.

- As protection for green concrete ASOPLAST-MZ prevents the premature drying out.

Technical Data:

Basis:	Polymer emulsion based on styrene-butadiene copolymer
Specific gravity:	approx. 1.0 kg /l
Colour:	white
Consumption:	depends on the areas of application
Storage:	In frost protected storage for at least 12 months in unopened original containers.

Surface preparation:

The surface must be clean, firm and free from remains of release agents. Impurities caused by oil, grease or rubber are to be completely removed, if necessary by means of sandblasting. Loose particles and sintering skin are also to be removed. Absorbing surfaces are to be evenly wetted until the surface is saturated (avoid formation of puddles).

Product preparation:

Use only fresh binding agents and clean washed additives with good grain distribution for the production of plastic mortar. Convert the grain size according to the layer thickness and the surface finish, i.e.:

upto 2 mm	ø 0 - 0.5 mm
2 - 5 mm	ø 0 - 1.0 mm
5 - 15 mm	ø 0 - 2.0 mm, 0 - 4.0 mm
more than 15 mm	ø 0 - 8.0 mm

At first pre-mix dry, then add the MZ-Water solution and mix for 2 minutes. To achieve strong thick layers, application is to be carried out using the lamination method. Generally, wet in wet application is to be effected. Do not use pure MZ-water solution for bonding agents, in such cases quick drying can

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produce a separating film. Do not apply at temperatures below +5 °C.

Bonding Layer:

In case of plastering on difficult surfaces, sealing plasters, sealing slurries, patch mortars, levelling mortar, floor coverings, between old and new concrete the following is to be regarded:

Gauging water	ASOPLAST-MZ with water 1:1 upto 1:3 mixing ratio cement and sand 1:3
Dry mixture:	0 - 4 mm, depending on layer thickness
Grain size:	
Consumption:	2.3 - 3.0 kg/m ² and cm layer thickness

a) Shotcrete bonding layer:

Produce mortar which is then gunned into a layer thickness of 4 - 5 mm. Further application for rendering, according to usual recommendations and instructions for premixed mortars, according to manufacturers' instructions. For renderings impermeable to water see the instructions for use of ASOLIN.

b) Other bonding layers:

Produce a brushable slurry (sand 0 - 4 mm). Brush this thoroughly into the substrate. Further amounts of mortar or concrete should immediately be spread wet in wet.

Levelling- and patching mortar:

Gauging solution:	ASOPLAST-MZ with water for coatings below 10 mm 1:3, for coatings over 10 mm 1:5.
Dry mixture:	cement with sand 1:2 upto 1:4.

Mixing a higher proportion of ASOPLAST-MZ to water, with ratio of 2:1, this achieve a higher resistance against chemicals, especially against urea, ammonia and diluted inorganic bases.

Grain size:	0 - 4 mm, depending on the layer thickness
Consumption:	0.7 - 1.9 kg/m ² and cm thickness

The stiff-plastic mortar is to be applied on the well moistened surface. For heavy duty surface areas and for very smooth surfaces apply the bonding layer accordingly (see Data).

Floor coverings, wear-resistant coverings in water constructions and substrates:

Gauging solution:	ASOPLAST-MZ with water, for surfaces affected by high loading capacity, mixing ratio of 1:1 upto 1:2, for normal loading capacity with mixing ratio of 1:2 upto 1:4
Dry mixture:	Binding agent with sand 1:2,5 upto 1:4
Grain Size:	0 - 4 upto 0 - 8 mm
Consumption:	0.3 upto 1.1 kg/m ² and cm layer thickness

The earth-moist mortar is applied in layers of 15 - 30 mm, wet in wet, according to certified rules of technique. It is compacted and thoroughly troweled off. Special care is to be taken when arranging shrinkage and construction joints!

Renderings:

a) Normal rendering is made of lime cement mortar:

Gauging solution:	ASOPLAST-MZ with water 1:2 upto 1:4
Dry mixture:	Binding agent with sand 1:2,5 upto 1:4
Grain size:	0-4 upto 0-8 mm
Consumption:	0.3 upto 1.1 kg/m ² and cm layer thickness

b) Rendering of insulation boards:

Gauging solution:	ASOPLAST-MZ with water 1:2
Dry mixture:	Binding agent with Sand 1:3
Grain size:	0 - 4 mm
Consumption:	0.7 upto 1.0 kg/m ² and cm layer thickness

The shotcrete is effected according the instructions. The prime rendering is applied onto the thoroughly hardened shotcrete according to usual rendering recommendations. ASOPLAST-MZ is added to the prime

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rendering in those areas where better bonding, higher flexibility, reduced shrinkage crack-formation and reduced water permeability is requested.

Smooth finish and levelling of fair-faced concrete:

Gauging solution:	ASOPLAST-MZ with water 1:3 upto 1:5
Dry mixture:	cement with sand 1:3
Grain size:	0 - 1 mm
Consumption:	0.7 upto 1.3 kg/m ² and cm layer thickness

The surface is to be cleaned thoroughly and to be pre-wetted. The mixture described above is to be turned into a groutable mortar. Firstly produce the bonding layer and then rub into surface with brush/comb intensively. The grouting mortar is immediately applied wet-in-wet by means of trowel or rubber spackle, rub off with a wooden hand-board and smooth off using a smooth trowel.

Mortar preparations:

Gauging solution:	ASOPLAST-MZ with water 1:3 upto 1:5
Dry mixture:	cement with sand 1:2 upto 1:3
Grain size:	0 - 8 mm
Consumption:	0.6 - 1.1 kg/m ²

For the bridging of construction joints between concrete construction elements the above mentioned mixture is to be created with a stiff-plastic consistency and is to be applied directly prior to concreting, onto the clean, moistened surface with a layer thickness of 5 cm. If formworks are being used, these are to be well secured. This construction joint is to be thoroughly covered with concrete and compacted as is usual.

Bonding, jointing and concave mouldings mortar:

a) For rigid joints in concrete and masonry construction	
Gauging solution:	ASOPLAST-MZ with water 1:2 upto 1:4

Dry mixture:	cement with sand 1:2 upto 1:3
Grain size:	0 - 2 mm with increased fine content upto 0,2 mm.
Consumption:	0.7 upto 1.9 kg/m ² and cm thickness

Produce the mortar in a pasty consistency and fill into the joint with a filling knife or a trowel.

b) Bonding of insulation and light construction boards:	
Gauging solution:	ASOPLAST-MZ with water 1:2
Dry mixture:	cement with sand 1:3
Grain size:	0 - 2 mm
Consumption:	1.4 - 1.9 kg/m ² and cm layer thickness

The plastic mortar is to be fixed by applying light pressure on the board, covering the complete surface by removing lumps and covering any particular spots.

Addition to lime and cement paints:

Gauging solution:	ASOPLAST-MZ with water 1:1
Consumption:	approx. 0.1 - 0.2 kg/m ² .

Instead of gauging with water use a solution above mentioned gauging mixture. Applying this method the paint achieves a better bonding and smear resistance as well as an improved protection against weather conditions.

After treatment for all areas of application: Rendering surfaces, floor coverings, patch and levelling mortar coverings are to be protected against the influences of rapid drying caused by wind and sun, using a plastic foil or using similar means of keeping the surface moist.

Protection of green concrete:

After dilution (1 part ASOPLAST-MZ - 2 parts water) the material is applied by a spray device or brush. The handling and further application starts as soon as the curing process has begun and when the surface is free of water. Consumption : 50 - 70 g/m².

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Important advice:

- To avoid air entrainment ASOPLAST-MZ mortars are to be mixed intensively, however, for no longer than 1 - 2 minutes.
- Pure ASOPLAST-MZ coats (without cement sand addition) are not suitable as a bonding layer, as a separating film may be formed in advance.
- ASOPLAST-MZ gauging solutions which are diluted more than 1:5 (MZ:water) offer only a minimum of plastics to the mortar, which is not hardly improve the mortar properties.
- Do not use ASOPLAST-MZ mortar at temperatures below +5° C.

ASOPLAST-MZ mortar is not resistant against steady contact with fuel and organic solvents (use ASODUR-mortar).

When using ASOPLAST-MZ adhere to all rules and regulations, instructions for use on standard cement mortars. The substrate is to be cleaned and thoroughly moistened.

- Use clean sand with suitable grain size.
- A minimum of Gauging Water as possible.
- For application in several layers always apply wet-in-wet. Protect against rapid drying out.
- Protect against wind and extreme temperatures.