

## Technical Datasheet

# ADIPLAST

## Polymer latex for multiple improvement of mortars

### Description

ADIPLAST is a polymer latex used as an admixture to significantly improve the properties of mortars. More specifically, it:

- Increases adhesion to the substrate.
- Improves elasticity.
- Impressively increases abrasion resistance.
- Makes mortars water impermeable.
- Eliminates shrinkage and prevents resulting cracks.
- Improves plasticity, water retention and workability of fresh mixtures.
- Improves resistance to chemicals and petroleum products.

### Fields of application

ADIPLAST may be used in:

- Bonding layers between old and new concrete or mortar.
- Repair mortars and thin layers.
- Wear-resistant, dust-proof floor screeds.
- Waterproof cement mortars, resistant to hydrostatic pressure.
- Floor screeds of under heating systems.
- Plasters of high strength and water impermeability.
- Mortars with resistance to chemicals and petroleum products.
- Adhesives for insulation boards, tiles or other coverings.
- Additives for improvement of wear and weather resistance of water paints (lime emulsions).
- Grouting mortars for natural stones.
- Mortars for forming fillets at wall to floor junctions.
- Protection of green (fresh) concrete against premature dehydration.

### Technical data

|            |           |
|------------|-----------|
| Color:     | white     |
| Viscosity: | 500 mPa·s |
| Density:   | 0.96 kg/l |

### Directions for use

#### 1. Substrate preparation

The substrate must be clean and free of dust, loose materials, oil, grease or old plaster, paint, cement residue, etc. It should be thoroughly dampened but without ponding.

#### 2. Application

ADIPLAST latex is added to the mixing water of mortars. The quantity of ADIPLAST depends on the desired effect and technical requirements (see application examples).

ADIPLAST solution should be added into the mixer first, before cement and aggregates, to avoid clumping.

Working time of mortars with ADIPLAST is slightly increased.

### Packaging

- 1 kg, 5 kg and 20 kg plastic containers.
- 150 kg drums.

### Shelf life – Storage

18 months from production date if stored in original, unopened packaging at temperatures between +5°C and +35°C. Protect from direct sunlight and frost.

### Remarks

ADIPLAST should be thoroughly stirred before use.

### Application examples

(All ratios refer to **parts by volume**)

#### • Bonding layers

##### a) Bonding layer for horizontal or sloping surfaces

The properly prepared surface is brushed in a thickness of about 2 mm, with a slurry consisting of:

Dry mortar: cement to sand = 1:1

Mixing liquid: ADIPLAST to water = 1 : 1

Dry mortar: mixing liquid = 2 : 1

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The new concrete or mortar should be applied up to 15-20 minutes after the application of the bonding layer, and not later (**fresh on fresh**).

Consumption: 0.25 kg of ADIPLAST/m<sup>2</sup>/mm.

Applications: Construction joints, bonding bridge between old and new concrete or mortar.

## b) Bonding spatterdash (rough cast) for vertical surfaces

A mixture for spatterdash is prepared with:

Dry mortar: cement to sand = 1 : 1

Mixing liquid: ADIPLAST to water = 1 : 1

Dry mortar : mixing liquid = 4 : 1

The spatterdash is applied in the usual way. **After hardening** (at least 1 day), the next layer may be applied.

Consumption: 0.16 kg of ADIPLAST/m<sup>2</sup>/mm.

Applications: Bonding of plasters and mortars to smooth vertical surfaces, thermal insulation boards, etc.

### • Patching mortars and thin layers

A mortar is prepared with:

Dry mortar: cement to sand = 1 : 2 up to 1 : 4

Mixing liquid: ADIPLAST to water = 1 : 2 up to 1 : 4

Dry mortar : mixing liquid = 4 : 1 up to 4.5 : 1

The mortar is applied on the properly prepared substrate. For heavily loaded surfaces or very smooth ones, a bonding layer should be applied first, as described above.

Consumption: 0.5-1.0 kg of ADIPLAST/m<sup>2</sup>/cm.

Applications: Concrete repair (cavities, corners, fillets, steps, etc), cement mortar repair, thin layers for leveling or sloping, etc.

### • Wear-resistant, dust-proof floor screeds

A mortar is prepared, according to the following ratios:

Dry mortar: cement to sand = 1 : 2 up to 1 : 4

Mixing liquid: ADIPLAST to water = 1:2 up to 1:4

Dry mortar : mixing liquid = 4 : 1 up to 4.5 : 1

The mortar is applied on the properly prepared substrate in layers 10-30 mm thick. Subsequently, it is compacted and mechanically smoothed.

Consumption: 0.5-1.0 kg of ADIPLAST/m<sup>2</sup>/cm.

Applications: Dust-proof industrial floors, floors in laboratories, warehouses, garages, etc.

### • Waterproof, water-pressure resistant cement mortars

A bonding layer (as above) is followed by 2 layers of troweled mortar (dry pack), consisting of:

Dry mortar: cement to sand = 1 : 2 up to 1 : 3

Mixing liquid: ADIPLAST to water = 1 : 2 up to 1 : 3

Dry mortar : mixing liquid = 4 : 1 up to 4.5 : 1

Consumption: 0.7-1.0 kg of ADIPLAST/m<sup>2</sup>/cm.

Applications: Waterproofing of tanks and basements even from the interior (negative pressure) side.

### • Weather-resistant, water-impermeable plasters

A plaster is prepared with:

Dry mortar: Binding material (cement + lime) to sand = 1 : 2.5 up to 1 : 4

Mixing liquid: ADIPLAST to water = 1 : 4 up to 1 : 5

Dry mortar : mixing liquid = 4.5 : 1 up to 5.5 : 1

In case of plaster application on thermal insulation boards, a bonding spatterdash layer mixed with ADIPLAST should be previously applied, as described above.

Consumption: 0.4-0.5 kg of ADIPLAST/m<sup>2</sup>/cm.

Applications: Protective plasters for adverse weather conditions.

### • Mortars resistant to chemicals and petroleum products

A mortar is prepared with:

Dry mortar: cement to sand = 1 : 2 up to 1 : 4

Mixing liquid: ADIPLAST to water = 2 : 1

Dry mortar : mixing liquid = 4 : 1 up to 4.5 : 1

Consumption: 1.7-2.0 kg of ADIPLAST/m<sup>2</sup>/cm.

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Applications: Cement mortar rendering or screeding for sewage tanks or wells, petroleum tanks, boiler room floors, etc.

- **Adhesive mortars**

A mortar is prepared according to the following ratios:

Dry mortar: cement to sand = 1 : 2 up to 1 : 3

Mixing liquid: ADIPLAST to water = 1 : 2

Dry mortar : mixing liquid = 5 : 1

Consumption: 0.8 kg of ADIPLAST/m<sup>2</sup>/cm.

Applications: Fixing of thermal insulation boards, tiles, etc.

- **Improvement of water paints (lime emulsions)**

Approximately 1-2 kg of ADIPLAST is added per 10 liters of ready-to-use water paint.

Applications: An economic solution for painting industrial rooms, warehouses, stock farm buildings and exterior surfaces in general.

- **Grouting mortars for natural stones**

A mortar is prepared with:

Dry mortar: cement to sand = 1 : 2 up to 1 : 3

Mixing liquid: ADIPLAST to water = 1 : 2 up to 1 : 4

Dry mortar : mixing liquid = 4 : 1 up to 4.5 : 1

Consumption:

6-10 g of ADIPLAST/m, for joints 1 cm wide and 1 cm deep.

Applications: Grouting of exposed brickwork, cement-tiles, etc.

- **Mortars for forming fillets at wall to floor junctions**

A mortar is prepared according to the following:

Dry mortar: cement to sand = 1 : 2 up to 1 : 4

Mixing liquid: ADIPLAST to water = 1 : 2 up to 1 : 4

Dry mortar : Mixing liquid = 4 : 1 up to 4.5 : 1

Consumption: 0.16-0.26 kg of ADIPLAST/m of fillet length - the fillet having a triangular cross-section with sides of 5-6 cm.

Applications: Forming fillets at wall to floor junctions.

- **Protection of green (fresh) concrete against premature dehydration.**

A solution consisting of ADIPLAST to water = 1:1, is sprayed or brushed on the surface of green concrete, which should be free of ponding water, immediately after setting has started.

Consumption: 0.05-0.07 kg of ADIPLAST/m<sup>2</sup>.

## Volatile Organic Compounds (VOCs)

According to the Directive 2004/42/CE (Annex II, table A), the maximum allowed VOC content for the product subcategory h, type WB is 30 g/l (2010) for the ready-to-use product. The ready-to-use product ADIPLAST contains a maximum of 30 g/l VOC.

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