

# Emaco T350SL

## Internal/External Heavy Duty Floor Leveller

### Description

EMACO T350SL is a two component, self-levelling mortar.

EMACO T350SL part 1 is a powder blend of cement, graded sands, and special modifiers.

EMACO T350SL part 2 is an acrylic polymer emulsion.

### Fields of Application

To resurface or repair worn or damaged concrete floors.

EMACO T350SL provides a smooth, wear-resistant surface suitable for a variety of applications such as:

- factory and warehouse floors
- loading bays
- car parks, garages and roadways
- balconies
- for inside and outside use

### Features and Benefits

#### Aesthetics

- Smooth finish
- Non-dusting

#### Durable

- Tough and durable
- Excellent bond strength
- Good wearing properties
- Shrinkage compensated for large size repairs

#### Cost effective

- Easy and fast to apply
- Self-levelling - no trowelling is required
- Can be mixed and placed mechanically
- Thin to medium layer thickness: 5 - 25 mm

#### Environmentally friendly

- Cement-based, contains no organic solvents.

### Technical Data/Physical properties: (a)

Pot life	> 20 min.
Wet density	$\pm 1.95 \text{ kg/dm}^3$
Mixing liquid	$\pm 5 \text{ l (4,75-5,25) part 2/25 kg powder}$
Colour	Grey
Modulus of elasticity (28 days)	ca. 20000 N/mm <sup>2</sup>
Mechanical strengths	N/mm <sup>2</sup>
Compressive strength 1 day 7 days 28 days	ca. 10 ca. 25 ca. 30
Flexural strength 28 days	ca. 5.5
Adhesive 28 days	> 2
Shore D 7 days	70
Linear shrinkage 28 days	- 0.070 %

(a) Typical values. All tests were carried out under temperature controlled conditions of 21°C.

### Coverage

Under normal usage conditions

at 5 mm thickness  $\pm 3.2 \text{ m}^2$  (b) / 25 kg powder

at 10 mm thickness  $\pm 1.6 \text{ m}^2$  (b) / 25 kg powder

at 25 mm thickness  $\pm 0.6 \text{ m}^2$  (b) / 25 kg powder <sup>(b)</sup> No waste factor included.

### Application Procedure

#### Substrate Quality

Substrates to be resurfaced must be clean and sound.

#### Preparation of Substrate

Remove all traces of previous coatings, laitance, oil, curing compounds, organic growth or any other contaminants which may adversely affect the bond.

Preferred methods of preparation include high pressure water-jetting, wet abrasive blasting, sand or grit blasting and vacuum shot-blasting.



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**Not recommended** are chemical cleaning methods such as acid etching or aggressive percussive methods such as scabbling, which may damage the substrate.

A minimum pull-out strength of 1N/mm<sup>2</sup> of the prepared substrate is required.

#### **Holes and cavities**

Holes or cavities over 25 mm deep should be filled with suitable products of the EMACO T range, prior to the application of EMACO T350SL. Finish repairs roughly to improve adhesion.

#### **Static cracks**

Small shrinkage cracks in the substrate may be ignored but cracks of 1 mm width or more should be repaired prior to the application of EMACO T350SL.

#### **Moving cracks or joints**

Moving cracks or joints should be treated as such, i.e. any existing moving cracks or joints in the substrate must be carried through the EMACO T350SL. Wherever an EMACO T350SL repair must connect to an existing level the concrete must be cut to a minimum depth of 5 mm.

Feather edging is not permissible.

Wherever an EMACO T350SL repair is to join a non-concrete floor (tiles, resin based flooring or wood), a movement joint should be created to be filled later with a flexible sealant.

#### **Pre-treatment of the substrate**

After the substrate preparation, there are two methods for treating the surface prior to the application of the EMACO T350SL mortar, i.e. saturation of the substrate with water or priming with MASTERSEAL 307 RAPID.

Water saturation is to be preferred as it will enhance the quality of the finished surface. However, water saturation is not in all situations possible, e.g. inside applications. Alternatively, the surface can be primed with MASTERSEAL 307 RAPID.

#### **Mixing**

Blend 25 kilograms of powder (part 1) into approximately 5.0 litres of part 2. The quantity may vary slightly depending upon the ambient conditions. Mix to a lump-free consistency using an EZ mixer or, for larger projects, a mobile mixer. Allow the mix to saturate for 2 minutes and remix adding liquid or powder, when necessary, to obtain the correct consistency.

Do not exceed the maximum liquid demand.

#### **Application**

Do not apply EMACO T350SL to frozen substrates or when the temperature is below 5°C or expected to fall below 5°C within 24 hours.

The application of EMACO T350SL is carried out in four stages:

##### **1. Saturation/Priming of the substrate**

The prepared concrete substrate should be saturated with clean water. This operation, which should be performed carefully, has the effect of displacing air from the substrate which otherwise would cause pinholes to occur in the EMACO T350SL. Before proceeding to the next phase, standing water should be removed.

Alternatively, the prepared substrate can be primed using MASTERSEAL 307 RAPID. The primer is applied uniformly onto the dry substrate using a short hair of fine foam roller. Avoid puddles forming.

Approximately 15 minutes after the first primer coat, a second layer is applied. Before proceeding to the next stage, allow the primer to cure and form a film. This might take approximately 1 h. For full technical information, see the Product Data Sheet of MASTERSEAL 307 RAPID.

##### **2. Application of the bonding slurry**

This is necessary to ensure good adhesion. Mix EMACO T350SL as described previously and brush firmly into the saturated substrate using a stiff broom.

Soft brooms must not be used.



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Application of a bonding slurry is not a necessity when EMACO T350SL is applied onto a MASTERSEAL 307 RAPID primed substrate. However, a bonding slurry has the effect of filling the entire roughness of the substrate, and consequently better adhesion could be achieved.

### **3. Application of the EMACO T350SL**

Immediately after the bonding slurry has been applied, apply the EMACO T350SL using a space rake adjusted to the required thickness. It is essential to plan the work so that the EMACO T350SL is applied onto a wet bonding slurry and that a wet edge is maintained at all times.

Whenever EMACO T350SL is to be applied without a bonding slurry onto a primed substrate, apply the material in a similar way as described before onto the dry MASTERSEAL 307 RAPID treated surface.

### **4. Finishing**

This should be done using a spiked roller. After the EMACO T350SL has been applied with the space rake it should be thoroughly rolled back-and-forth using a spiked roller. This has the effect of releasing entrapped air and ensures a smooth, level surface. It is usual for the rolling phase to be one mix unit behind the application by space rake so that the new mix is rolled evenly into the old. This ensures that the two mixes marry-in evenly.

A skid resistant finish can be achieved by broadcasting dry silica sand into the fresh EMACO T350SL, just prior to the moment the material starts to skin on the surface. After curing excess sand can be removed.

### **Curing**

Under normal climatic conditions no special curing procedures are needed. EMACO T350SL should be ready for pedestrian traffic after 24 hours and fully operational after 72 hours.

During hot, dry and windy conditions (above 25°C and below 55% relative humidity) as soon as the surface of the EMACO T350SL has set dry, clean silica sand should be broadcast or polythene sheeting should be used over the entire surface. This will protect it from rapid uncontrolled drying. The sand can be removed by broom after a minimum of 24 hours.

When temperatures are low (5-15°C) and humidity high (above 90%) the setting and curing times of EMACO T350SL will be extended. Under these conditions a longer curing period will be needed before opening to traffic.

### **Packaging**

EMACO T350SL part 1 25 kg sack  
EMACO T350SL part 2 5 litre bottle

### **Storage**

Both components should be stored under cover, clear of the ground and stacked not more than 2 pallets or 6 sacks high. Protect the materials from all sources of moisture and frost (+5°C).

### **Shelf Life**

Rotate stock in order not to exceed the shelf life of 6 months for EMACO T350SL part 1 and 12 months for EMACO T350SL part 2.

### **Clean up and spillages**

Uncured material may simply be removed with water.

### **Health and safety**

EMACO T350SL is based on cement and thus can be irritating to the skin and eye. Gloves and eye protection should be worn. The use of dust masks is recommended. Accidental splashes of the material to the skin or eyes should be immediately washed off with clean water. In the event of prolonged irritation seek medical advice. In the case of ingestion give water or milk to drink and treat symptomatically. Medical advice should be sought.

A Material Safety Data Sheet for this product is available on request

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#### **Health and Safety**

\*For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

The following general comments apply to all products.

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs, (which may also be tainted with vapour until the product is fully cured and dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Keep away from children and animals. Reseal containers after use.

#### **Solvent Based Products**

Use in well ventilated areas; avoid inhaling. Suitable respiratory equipment may be needed, eg when spraying. Can cause skin, eye irritation. Wear protective eye shields and gloves during use. Do not smoke or allow sparks or naked lights when stored or in use.

#### **Powder Products**

Should be handled to minimise dust formation; use light mask if excessive dust unavoidable. Cement powders when wet or moistened can cause burns to skin and eyes which should be protected during use.

#### **Resin Products**

Can cause irritation, dermatitis or allergic reaction. Use protective equipment particularly for skin and eyes. Use only in well ventilated areas.

#### **Spillage**

Chemical products can cause damage; clean spillage immediately.

#### **Disclaimer:**

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