



# DRI-FLOOR MT 1100

## 3-part epoxy moisture tolerant levelling mortar, intermediate layer and mortar screed

3-part, solvent free epoxy resin with good penetration, excellent bonding and easy application. It can be used as a temporary moisture tolerant layer before application of epoxy/PU coatings or system.

### FEATURES/BENEFITS

- High strength
- Good penetration
- Excellent bond strength
- Solvent-free
- Easy application
- Short waiting times
- Multi-purpose

### APPLICATION AREAS

- Manufacturing plants
- Multi-storey & underground car parks
- Storage & assembly halls
- Maintenance workshops
- Garages
- Loading ramps
- Wet process areas, e.g. food & beverage industries
- Maintenance hangars

### PRODUCT DATA

Appearances / Colours	Brownish quartz finish
Packaging	50kg/set
Storage	12 Months from date of production
Storage Condition	Dry conditions at temperatures between +18 °C to +30 °C. Protect from direct sunlight.

### TECHNICAL DATA

Origin	Epoxy
Density	Approx. 2.2kg/L (at +23°C ) with resin to filler ratio at 1:9
Solid Content	Approx. 100% (by weight & by volume)
Compressive Strength	Approx. 70 N/mm <sup>2</sup> (at 28 days, +23°C ) (EN 196-1)
Bond Strength	> 1.5 N/mm <sup>2</sup> (failure in concrete) (ISO 4624)
Flexural Strength	Approx. 30 N/mm <sup>2</sup> (at 28 days, +23°C ) (EN 196-1)
Shore-D Hardness	76 (at 7 days, +23°C ) (DIN 53505)

<b>Pot life</b>	<b>Temperature</b>	<b>Time</b>
	+10°C	~ 50 min.
	+20°C	~ 25 min.
	+30°C	~ 15 min.
<b>Thermal Resistance*</b>	<b>Exposure</b>	<b>Dry Heat</b>
	Permanent	+50°C
	Short-Term (<7 days)	+80°C
	Short-Term (<12 h)	+100°C

\* Short-term moist / wet heat up to +80°C where exposure is only occasional (steam cleaning, etc.)

\* No simultaneous chemical & mechanical exposure and only in combination with Dri-Floor EP systems as a broadcast system with approx. 3-4mm thickness.

## APPLICATION CONDITIONS

<b>Substrate Temperature</b>	10 – 30 °C			
<b>Ambient Temperature</b>	10 – 30 °C			
<b>Substrate Humidity</b>	<6% moisture content with no rising moisture. No standing water/condensation on the substrate.			
<b>Relative Air Humidity</b>	Max. 80%			
<b>Dew Point</b>	Surface temperature must be +3°C above dew point			
<b>Overcoating Time</b>	Before applying solvent-free product on Dri-Floor MT 1100:			
	<b>Substrate Temperature</b>	<b>Minimum</b>	<b>Maximum</b>	
	+10°C	24 hours	4 days	
	+20°C	12 hours	2 days	
	+30°C	8 hours	24 hours	
	Before applying solvent-free product on Dri-Floor MT 1100:			
	<b>Substrate Temperature</b>	<b>Minimum</b>	<b>Maximum</b>	
+10°C	36 hours	6 days		
+20°C	24 hours	4 days		
+30°C	16 hours	2 hours		
<b>Traffic Condition</b>	<b>Temperature</b>	<b>Foot Traffic</b>	<b>Light Traffic</b>	<b>Full Cure</b>
	+10°C	~24 hours	~6 days	~10 days
	+20°C	~12 hours	~4 days	~7 days
	+30°C	~6 hours	~2 days	~5 days

- Curing time may vary and are subjected to ambient conditions.

## CONSUMPTION

Coating System	Product	Product
<b>Primer</b>	Dri-Floor EP 1000	0.2 – 0.3 kg/m <sup>2</sup>
<b>Scratch coat (Optional)</b>	Dri-Floor MT 1100 Resin to filler ratio (1:3)	1.0 kg/m <sup>2</sup>
<b>Temporary moisture tolerant layer</b>	Dri-Floor MT 1100 Resin to filler ratio (1:9)	2.2 kg/m <sup>2</sup> per mm (11.0 kg/m <sup>2</sup> per 5 mm)

\*The largest grain size should be max. 1/3 of the finished layer thickness. Dependent on the grain shape and application temperatures, the aggregates and the most suitable mix should be selected.

\*Actual consumption may vary due to application technique, surface porosity, surface profile, variation in level, wastage, and so on.

## SUBSTRATE

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New concrete should be cured for at least 28 days and should have a pull-off strength  $\geq 1.5$  N/mm<sup>2</sup>. Cement or mineral based substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and to achieve an open textured surface. Loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed. Substrate must have sufficient gradient for surface water to run off easily without ponding water.

## MIXING

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Prior to mixing, stir part A mechanically. When all of part B has been added to part A, mix continuously for 2 minutes until a uniform mix has been achieved. When parts A & B have been mixed, add the quartz sand and mix for a further 2-3 minutes until a uniform mix has been achieved. To ensure thorough mixing, pour materials into another container and mix again to achieve a consistent mix. Over mixing must be avoided to minimise air entrainment. Mixer with high shear force is recommended to achieve homogenous mixture.

## APPLICATION

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Prior to application, ensure substrate moisture content, relative humidity, and dew point is within limits. To ensure the finished system remains fully bonded to the substrate, it is recommended that retaining slots of 5 mm deep by 5 mm wide are formed, running at 150 mm from and parallel to the walls and all edges. Retaining slots are also recommended at day joints. Always ensure good ventilation when using Dri-Floor MT 1100 in a confined space.

### a) Primer

Make sure that a continuous, pore free coat covers the substrate. If necessary, apply 2 priming coats. Apply Dri-Floor EP 1000 or any other suitable primer by brush, roller or squeegee.

### b) As a scratch coat

Rough surfaces need to be levelled first. Apply the levelling mortar by squeegee/trowel to the required thickness.

### c) As an epoxy screed/ repair mortar / temporary moisture tolerant layer

Apply the mortar screed evenly on the still “tacky” bonding bridge, using levelling battens and screed rails as necessary. After a short waiting time, compact and smoothen the mortar with a trowel or Teflon coated power float (usually at 20 – 90 rpm).

## LIMITATIONS

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- Do not apply on substrates with rising moisture. Freshly applied coatings should be protected from damp, condensation and water for at least 24 hours.
- For external applications, always apply during falling ambient and substrate temperature. If applied during rising temperatures, pin holes may form due to the rising air.
- Avoid puddles on the surface with the primer.
- Dri-Floor MT 1100 mortar screed is not suitable or frequent or permanent contact with water unless sealed.
- Practical trials should be carried out for mortar mixes to assess suitable aggregate grain size distribution.
- Ensure that the coating is thoroughly dry and the surface is without pinholes before applying any top coat.
- Incorrect assessment and treatment of cracks may lead to a reduced service life & reflective cracking.
- Under certain conditions, underfloor heating combined with high point loading may lead to imprint in the resin. If heating is required, do not use gas, oil, paraffin or other fossil fuel heaters that produce large quantities of CO<sub>2</sub> & H<sub>2</sub>O vapour as it may adversely affect the finishing. For heating, use only electric powered warm air blower systems.
- The colour of Dri-Floor MT 1100 may vary or yellow under UV. Dri-Floor UV 9000 can be applied to further enhance its UV-resistance.

## HEALTH & SAFETY

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For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

## LEGAL NOTE

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The information, and, in particular, the recommendations relating to the application and end-use of these products, are given in good faith based on current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance to the manufacturer recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. The manufacturer reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

