

# InsuFloor E 5000 SL

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High Performance epoxy self-smoothing behavior for both smooth and broadcasted flooring systems.

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## DESCRIPTION

InsuFloor E 5000 SL is a multi-component, self-smoothing, solvent-free epoxy, provides continuous protection for concrete floors in light, medium and heavy-duty applications at thickness of between 1.5 and 3mm or greater. The system can be applied successfully at greater thickness but on stages combined with broadcasted aggregates to increase & enhance the mechanical bonding between the layers.


## USES

▪ InsuFloor E 5000 SL may only be used by experienced professionals.

InsuFloor E 5000 SL is used as:

- Self-smoothing and broadcast systems for concrete and cement screeds with normal up to medium heavy wear e.g. storage and assembly halls, maintenance workshops, garages, loading ramps, Warehouses, Car Parks and other traffic decks.
- The broadcast system is recommended for multi-story and underground car parks, maintenance hangars  
Pharmaceutical and other medical or laboratory areas.
- Showrooms, Aircrafts and other demonstration areas.
- Chemicals production filed.
- Oil & Gas plants.

## CHARACTERISTICS / ADVANTAGES

- Liquid proof
  - Gloss finish
  - Slip resistant surface possible
  - Highly fillable
  - Good chemical and mechanical resistance
  - Excellent wear & abrasion resistant
  - Easy application
  - Easy to clean
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## PRODUCT INFORMATION

<b>Composition</b>	Epoxy	
<b>Packaging</b>	Part A	11.85 kg
	Part B	3.15 kg
	Part C ( Mixing Ratio 1:1 )	15.00 kg
Full Unit ( A+B+C ) = 30 Kg ( Mix Ratio 1:1 ) for thickness 1.5 - 3mm . for thickness < 1.5 mm reduce quantity of part c .		
<b>Appearance / Colour</b>	Resin - part A:	coloured, liquid
	Hardener - part B	transparent, liquid

RAL 7040

Other colours on request.

Under direct sun light there may be some discoloration and colour variation; this has no influence on the function and performance of the coating.

<b>Density</b>	Part A	~ 1.44 kg/l
	Part B	~ 1.00 kg/l
	Mixed resin	~ 1.40 kg/l
	Filled resin ( 1:1)	~ 1.84 kg/l
	All Density values at +25 °C.	

### Systems

#### Smooth Finish Application :

Primer	1 X Insufloor E 4000 or Insufloor E 4001
Putty (Smoothing Layer)	1 or 2 X Insufloor E 4400 mixed with fine filler
Body Layer	1 X InsuFloor E 5000 SL( A+B+C ) with the required thickness

## APPLICATION INFORMATION

<b>Consumption</b>	<b>Primer</b> : ~ 0.2 - 0.3 Kg/m <sup>2</sup> ( depends on the surface porosity )
	<b>Putty</b> : ~ 0.15 - 0.25 Kg/m <sup>2</sup> ( depends on the surface quality )
	<b>Body Layer up to 3mm thickness</b> : ~ 1.85 Kg/m <sup>2</sup> /mm

**Ambient Air Temperature** +10 °C min. / +30 °C max.

**Substrate Temperature** +10 °C min. / +30 °C max.

<b>Pot Life</b>	<b>Temperature</b>	<b>Time</b>
	+10 °C	~ 50 minutes
	+20 °C	~ 25 minutes
	+30 °C	~ 15 minutes

### Waiting Time / Overcoating

Before applying InsuFloor E 5000 SL over the primer or the putty layer :

<b>Temperature</b>	<b>Minimum</b>	<b>Maximum</b>
+30 °C	8 hours	1 day

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## TECHNICAL INFORMATION

<b>Shore D Hardness</b>	~76 (7 days / +23 °C) ~76	(DIN 53 505) (ASTM D 2240)
<b>Abrasion Resistance</b>	~ 35 mg (CS 10/1000/1000) (7 days / +23 °C) ~ 53 mg (CS 10/1000/1000)	(DIN 53 109) (ASTM D4060)
<b>Compressive strength</b>	~ 50 N/mm <sup>2</sup> ~ 52 N/mm <sup>2</sup>	(EN196-1) (ASTM C579)
<b>Tensile Strength in Flexure</b>	~ 20 N/mm <sup>2</sup> ~ 20 N/mm <sup>2</sup>	(EN 196-1) (ASTM C580)
<b>Tensile strength</b>	~ 23 N/mm <sup>2</sup>	(ASTM C307)
<b>Tensile Adhesion Strength</b>	> 2 N/mm <sup>2</sup> (failure in concrete) > 1.5 N/mm <sup>2</sup> (failure in concrete) (after 28 days at 23°C)	(ISO 4624) (DIN 53 232)
<b>Resistance to Impact</b>	No Cracks	(ASTM D 2794)
<b>Chemical resistance</b>	Resistant to many chemicals. Contact INSUMAT technical service for specific information.	
<b>Temperature resistance</b>	<b>Exposure*</b>	<b>Dry heat</b>
	Permanent	+50 °C
	Short-term max. 7 d	+80 °C
	Short-term max. 12 h	+100 °C
	Short-term moist/wet heat* up to +80°C where exposure is only occasional (steam cleaning etc.).	

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY / PRE-TREATMENT

- Concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm<sup>2</sup>) with a minimum pull off strength of 1.5 N/mm<sup>2</sup>.
- The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.
- Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.
- Weak concrete must be removed and surface defects such as blow holes and voids must be fully exposed.
- Repairs to the substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products from the InsuFloor, range of materials.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush or vacuum.

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## MIXING

- Prior to mixing, stir part A mechanically. When all of part B has been added to part A, mix continuously for 3 minutes until a uniform mix has been achieved.
- When parts A and B have been mixed, add the quartz sand and if required the Extender T and mix for a further 2 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 minimize air entrainment.

## Mixing Tools

- InsuFloor E 5000 SL must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suit- able equipment. For the preparation of mortars use a forced action mixer of rotating pan, paddle or trough type. Free fall mixers should not be used.

## APPLICATION

- Prior to application, confirm substrate moisture content, relative air humidity and dew point.

### Primer:

- Make sure that a continuous, pore free coat covers the substrate. If necessary, apply two priming coats. Apply Insufloor E 4000 or Insufloor E 4001 by brush, roller or squeegee. Preferred application is by using a squeegee and then backrolling crosswise.

### Levelling:

- Rough surfaces need to be levelled first using Insufloor E 4000 or Insufloor E 4001 mixed by fine filler.

### Wearing course smooth:

- InsuFloor E 5000 SL is poured, spread evenly by means of a serrated trowel. After spreading the material evenly, turn the serrated trowel and smooth the surface in order to achieve an aesthetically higher grade of finish. Roll immediately in two directions with a spiked roller to ensure even thickness.

### Broadcast system:

InsuFloor E 5000 SL is poured, spread evenly by means of a serrated trowel. Then, level and remove any entrapped air with a spiked roller and after about 15 minutes (at +20 °C) but before 30 minutes (at +20 °C), broadcast with quartz sand, at first lightly and then to excess.

## CLEANING OF EQUIPMENT

\*Clean all tools and application equipment with Thinner C immediately after use. Hardened and/or cured material can only be removed mechanically.

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## STORAGE

- Store out of direct sunlight, clear of the ground, on pallets protected from rainfall. Avoid excessive compaction and protect from extremes of temperatures. In tropical climates, the product must be stored in an air-conditioned environment.
- Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.
- For specific storage and disposal advice, consult Insumat's Technical Services Department.

## SHELF LIFE

- Up to 12 months if stored in unopened containers according to manufacturer's instructions.

## NOTE

- Field service, where provided, does not constitute supervisory responsibility. For additional information, contact Insumat's representative.

- Insumat reserves the right to have the true cause of any difficulty determined by accepted test methods.

## QUALITY STATEMENT

- All products manufactured by Insumat Egypt, are manufactured to procedures certified to conform to the quality, environment, health & safety management systems described in the ISO 9001:2015, standard.

\* Properties listed are based on laboratory-controlled tests.

- Actual measured data may vary due to circumstances beyond Insumat's control.

Manufacturing Insulating Materials and Products Company