

Kemfloor MS/Novolac

Heavy Duty, Super Chemical Resistance Novolac Epoxy Resin Mortar Screed

Description	Kemfloor MS /Novolac is a solvent-free 3 pack components epoxy mortar screed, for an extremely high strength and exceptional chemical resistance floor topping	
Where to use	A heavy duty epoxy mortar with a thickness of (4 – 8 mm) for dairies, food processing and soft drinks factories, hospitals, pharmaceutical industry, heavy engineering plant workshops, and oil refineries	
Advantages	• Solvent-free, no fire risk • Excellent adhesion to concrete, mortar, and steel substrate • Anti-slip (agg. no.3), anti-skid finish • High mechanical strengths • High abrasion resistance • High chemical resistance	
Properties		
Color	Natural White & Grey	Other colors can be available
Specific gravity	1.95 ±0.1	
Volume solid	100 %	
Chemical resistance	PROKEM chemical resistance tables	
Technical information (@ 23 °C/after 7 days)		
Compressive strength	80 - 85 N/mm ²	
Flexural strength	34 N/mm ²	
Impact	2.5 N/mm	
Tensile strength	7 N/mm ²	
Shore hardness	>75	
Bond strength	Greater than the cohesive strength of concrete	
Service temperature	>80° C	
Coefficient of thermal expansion	12 – 18 µm/m. °C (Low CTE)	
Pot life @ 23 °C	45 minute (reduced at higher temperatures)	
Initial hardening	24 hour @ 23 °C	
Fully hardening	7 Days	

Surface Preparation	New poured concrete - Concrete compressive strength $>25\text{N/mm}^2$ & Bond strength $> 1.5\text{ N/mm}^2$ (28 days) - Moisture content $< 4\%$ - Allow to fully cure 28 days prior to application - Remove any curing membrane by sanding or etching with a strong detergent Old concrete - Thoroughly clean the surface with a grease-cutting detergent to remove grease and oils, and remove any loose or unsound concrete by chipping, scarifying, shot blasting, sanding, or grinding. Proceed as for newly poured concrete Previously coated concrete - Remove any peeling or degraded paint by sanding or using a paint stripper - For intact paint, thoroughly clean the surface with a strong detergent, then lightly sand to remove any gloss - Treat any areas worn down to the original concrete as bare concrete - All damaged areas, cracks, and surface irregularities must be repaired and smoothed first by using Kemrepair EP and a bonding layer using Kembond EP - steel surface - The steel surface should be blasted to Sa2½ surface quality to remove rust and mill scale
	Expansion Joints - Shall be installed in accordance with local building codes - Never bridge an expansion, contraction, or construction joint
Mixing	Stir the contents of part A with an electrical stirrer to disperse any settlement. Add part B to part A and mix for 2 - 3 minutes with a low speed drill. Add the mix (A +B) completely to the filler (C) (agg. no.3). Mechanical mixing is recommended until a homogeneous and uniformly moist mix is obtained
Priming	- Prime the prepared concrete substrate using Sealer E45 as a sealer coat at a coverage rate of $0.2 - 0.25\text{ Kg/m}^2$ - Mix components A and B together using a paint stirrer, pallet knife, or similar until it is streak free - Using a paintbrush or medium pile paint roller, apply the mixed primer to the prepared substrate - If the concrete absorbs the primer, leaving the surface matt instead of glossy, the surface should be re-primed - For green concrete or wet concrete (moisture content $>4\%$ use Wetseal at a coverage rate of $0.2 - 0.25\text{ Kg/m}^2$ - Ensure the mixing equipment is working and that a backup mixer is available in case of a breakdown - When using electrically powered mixing equipment verify the security of the power supply
Application	- Application temperature $+10/+30\text{ }^{\circ}\text{C}$ - Moisture content $<4\%$ - Before the bonding layer cures apply the mortar screed. Kemfloor MS/Novolac should be spread to uniform thickness on the primed surface by the edge of a steel trowel. - The material should be stamped with a wooden float to ensure complete compaction and finally finished to a closed even texture using a steel trowel. - It's always recommended to seal the surface porosity of the Mortar Screed Epoxy with a suitable material to fit the application purpose
Cleaning	Cleaning all tools and equipment immediately after use with Prokem special solvent
Limitation	- In constantly wet areas or where a high degree of cleanliness is required Kemfloor MS/Novolac may be coated with Kemfloor Novolac - To terminate at perimeters, up stands columns and skirting extend the Kemcrete MS/Novolac to form a cove - Minimum surface temperature $10\text{ }^{\circ}\text{C}$ - Maximum surface temperature $30\text{ }^{\circ}\text{C}$ - Surface moisture content $< 4\%$

Theoretical Coverage	1 st step Primer Sealer E45 for dry concrete and Wetseal for green concrete at a coverage rate of 0.2 - 0.25 Kg/m ² depending on substrate porosity 2 nd step Mortar screed Kemfloor MS/Novolac 10 Kg/m ² /5 mm thick 3 rd Step Sealer E45 as a sealing coat 0.2-0.25 Kg/m ² or a top coat layer from Novolac's Range
Packaging	Part (A+B+C): 35 Kg (agg. no.1003)
Shelf life & storage	12 months if stored in unopened containers in cool, dry condition
Health and Safety	• Use gloves and a breathing mask when applying • Apply forced ventilation in confined spaces • Skin splashes to be removed with hand cleanser, soap, and water • Eye splashes are to be removed with plenty of water • If ingested seek medical advice
Additional Information	PROKEM provides the construction industry with a comprehensive range of construction chemicals and specialty products answering the queries of modern engineers for trouble free durable structures PROKEM designs tailor made products should there be a critical application that requires specific properties rather than our main range. For our customer's satisfaction PROKEM reserves the right to change the properties of its products All orders are accepted subject to our current terms of sale & 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 PROKEM extends technical services to include after sales support to assist users in the proper handling of our products