

# Kemfloor MS E81

Heavy Duty, High Chemical Resistance Epoxy Resin Mortar Floor Screed

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| Description                                  | <b>Kemfloor MS E81</b> is a solvent -free three pack components epoxy mortar screed, for ultra-high strength and exceptional chemical resistance floor topping                                                                                                                                                    |
| Where to use                                 | A heavy-duty epoxy mortar for dairies, chemical industries, textile dyeing plants, heavy engineering plant workshops, petrochemical industries, power stations and oil refineries.                                                                                                                                |
| Advantages                                   | <ul style="list-style-type: none"> <li>• Solvent-free, no fire risk</li> <li>• Excellent adhesion to concrete, mortar and steel substrate</li> <li>• Anti – slip &amp; anti – skid finish</li> <li>• High mechanical strengths</li> <li>• High abrasion resistance</li> <li>• High chemical resistance</li> </ul> |
| Properties                                   |                                                                                                                                                                                                                                                                                                                   |
| Color                                        | Natural, Grey and others                                                                                                                                                                                                                                                                                          |
| Specific gravity                             | 2 ±0.1                                                                                                                                                                                                                                                                                                            |
| Volume solid                                 | 100 %                                                                                                                                                                                                                                                                                                             |
| Chemical resistance                          | <b>PROKEM</b> chemical resistance tables                                                                                                                                                                                                                                                                          |
| Technical information (@ 23 °C/after 7 Days) |                                                                                                                                                                                                                                                                                                                   |
| Compressive strength                         | 70 - 80 N/mm <sup>2</sup>                                                                                                                                                                                                                                                                                         |
| Flexural strength                            | 25 - 30 N/mm <sup>2</sup>                                                                                                                                                                                                                                                                                         |
| Impact                                       | 2.5 N.m                                                                                                                                                                                                                                                                                                           |
| Tensile strength                             | 10 - 15 N/mm <sup>2</sup>                                                                                                                                                                                                                                                                                         |
| Pot life at 23 °C                            | 60 Minutes (reduced at higher temperatures)                                                                                                                                                                                                                                                                       |
| Initial hardening                            | 24 hours                                                                                                                                                                                                                                                                                                          |
| Fully hardening                              | 7 Days                                                                                                                                                                                                                                                                                                            |
| It complies with ASTM C267, 413, 579         |                                                                                                                                                                                                                                                                                                                   |

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| Surface Preparation | <b>New poured concrete</b> <ul style="list-style-type: none"> <li>Concrete compressive strength &gt;25 N/mm<sup>2</sup> &amp; Bond strength &gt; 1.5 N/mm<sup>2</sup> (28 days)</li> <li>Moisture content &lt; 4%</li> <li>Allow to fully cure 28 days prior to application</li> <li>Remove any curing membrane by sanding or etching with a strong detergent</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                     | <b>Old concrete</b> <ul style="list-style-type: none"> <li>Thoroughly clean 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</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|                     | <b>Previously coated concrete</b> <ul style="list-style-type: none"> <li>Remove any peeling or degraded paint by sanding or using a paint stripper</li> <li>For intact paint, thoroughly clean the surface with a strong detergent, then lightly sand to remove any gloss</li> <li>Treat any areas worn down to the original concrete as bare concrete</li> <li>All damaged areas, cracks, and surface irregularities must be repaired and smoothed first by using <b>Kemrepair EP</b> and a bonding layer using <b>Kembond EP</b></li> </ul>                                                                                                                                                                                                                                                                                                                                                  |
| Expansion Joints    | <ul style="list-style-type: none"> <li>steel surface</li> <li>The steel surface should be blasted to Sa 2½ surface quality to remove rust and mill scale</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Mixing              | <ul style="list-style-type: none"> <li>Shall be installed in accordance with local building codes</li> <li>Never bridge an expansion, contraction or construction joint</li> <li>Stir the contents of part A with an electrical stirrer to disperse any settlement</li> <li>Add part B to part A and mix for 2 – 3 minutes with a low-speed drill</li> <li>Add the mix (A+B) completely to the filler (C)</li> <li>Mechanical mixing is recommended until a homogeneous and uniformly moist mix is obtained</li> </ul>                                                                                                                                                                                                                                                                                                                                                                         |
| Priming             | <ul style="list-style-type: none"> <li>Prime the prepared concrete substrate using <b>Sealer E45</b> as a primer coat at coverage rate 0.2 –0.25 Kg/m<sup>2</sup></li> <li>Mix components A and B together using a paint stirrer, pallet knife, or similar until it is streak free</li> <li>Using a paint brush or medium pile paint roller, apply the mixed primer to the prepared substrate</li> <li>If the concrete absorbs the primer, leaving the surface matt instead of glossy, the surface should be re-primed</li> <li>For green concrete or wet concrete where moisture content &gt;4% use <b>Wetseal</b> at a coverage rate of 0.2 - 0.25 Kg/m<sup>2</sup></li> <li>Ensure the mixing equipment is working and that a backup mixer is available in case of a breakdown</li> <li>When using electrically powered mixing equipment verify the security of the power supply</li> </ul> |
| Application         | <ul style="list-style-type: none"> <li>Application temperature +10/+30 °C</li> <li><b>Kemfloor MS E81</b> should be spread to uniform thickness on the primed surface by the edge of a steel trowel – wet on wet application</li> <li>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</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Cleaning            | Cleaning all tools and equipment immediately after use with <b>Prosolve EP</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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| Limitation             | <ul style="list-style-type: none"> <li>• Expansion joints in the existing substrate should be continued through <b>Kemfloor MS E81</b> and filled to the required level with a suitable sealant</li> <li>• In constantly wet areas or where a high degree of cleanliness is required <b>Kemfloor MS E81</b> may be coated with <b>Kemfloor E81</b></li> <li>• To terminate at perimeters, up stands columns and skirting extend the <b>Kemfloor MS E81</b> to form a cove</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                     |
| Theoretical Coverage   | <p><b>1<sup>st</sup> step</b> Primer <b>Sealer E45</b> for dry concrete and <b>Wetseal</b> for green concrete at coverage rate as primer coat 0.2 - 0.25 Kg/m<sup>2</sup> depending on substrate porosity</p> <p><b>2<sup>nd</sup> step</b> Mortar screed (<b>Kemfloor MS E81</b> (A+B+C) 8 - 16 Kg/m<sup>2</sup>/ 4 – 8 mm thick</p> <p><b>3<sup>rd</sup> step</b> Sealing and Top Coat <b>Kemfloor E81</b> (A+B) 0.25 – 0.3 Kg/m<sup>2</sup> for a D.F.T of 150 – 200 micron</p> <p>2 coats are always recommended</p>                                                                                                                                                                                                                                                                                                                                                                 |
| Packaging              | Part (A+B+C): 35 Kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Shelf life & storage   | 12 months if stored in unopened containers in cool, dry condition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Health and Safety      | <ul style="list-style-type: none"> <li>• Use gloves and a breathing mask when applying</li> <li>• Apply forced ventilation in confined spaces</li> <li>• Skin splashes to be removed with hand cleanser, soap, and water</li> <li>• Eye splashes are to be removed with plenty of water</li> <li>• If ingested seek medical advice</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Additional Information | <p><b>PROKEM</b> 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.</p> <p><b>PROKEM</b> designs tailor made products should there be a critical application that requires specific properties rather than our main range, then and for our customer's satisfaction <b>PROKEM</b> reserves the right to change the properties of its products.</p> <p>All orders are accepted subject to our current terms of sale &amp; delivery.</p> <p>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.</p> <p><b>PROKEM</b> extends technical services to include after sales support to assist users in the proper handling of our products.</p> |