

Kemrepair L

Light Weight Polymer Modified Non-Shrink Repair Mortar

Description	Kemrepair L is a light weight polymer modified cementitious mortar. The mix design includes special shrinkage compensating components plus powerful plasticizing agents that produce a workable mortar at low water content. The mix design produces a medium density, high build polymer modified cementitious concrete repair system developing compressive strengths. Kemrepair L is specially designed to be used for overhead and vertical applications where high build replacement with conventional concrete is impractical.
Where to use	Kemrepair L is used as a concrete repair material in vertical and overhead situations. In many cases the 'high build' nature of the material enables work to be carried out without shuttering and to replace damaged or deteriorated concrete. Kemrepair L is used in: • Building facades, balconies and columns • Spalled areas and Tuck pointing • Bridges and parking garages • Beam and soffit repair
Advantages	Kemrepair L provides the following advantages: • One pack product ready for onsite mixing • Excellent weathering resistance • Rust inhibiting properties since it does not contain calcium chloride • Excellent adhesion to concrete and steel • Made to achieve high quality finishes • Breathable • Economic since it can be applied without the need of expensive form work • Water repellent
Physical Properties:	
Coefficient of thermal expansion	8 x 10 ⁻⁶ / °C
Setting time @ 25 °C	Initial: 60 minutes Final: 80 minutes
Density	Fresh wet: 1.75 gm/cm ³
Pot life	45 minutes
Mechanical Properties:	
Compressive strength	1.5 – 2.5 N/mm ² 30 N/mm ²
Flexural strength	7 N/mm ²
Tensile strength	1 - 1.5 N/mm ²
Surface Preparation	• Remove all damaged and contaminated concrete to reach the sound core • Remove additional concrete surrounding and along the reinforcement bars • Formation of clean-cut edges to avoid feather edges • Thoroughly clean reinforcement bars to remove all rust, scale and surface contaminants • If steel is heavily corroded that significant loss of section has occurred, please consult a qualified engineer for steel replacement • Clean and dampen the concrete surface with water, or use Kembond SBR as a bonding agent between the old and the new layer • Rebar's can be primed with Kemprim ZRS for protection against corrosion

Expansion Joints	Shall be installed in accordance with local building codes & never bridge an expansion, contraction, or construction joint.
Mixing	• Kemrepair L should always be mixed mechanically, a heavy-duty slow speed drill with spiral mixing paddle • Add 4 – 5 liters of clean potable water into a clean vessel, and start adding Kemrepair L powder gradually but continuously while mixing • Mix for 3 – 4 minutes after all the powder has been added until mortar is homogeneous and lump free
Application	• Apply a slurry coat by brush over reinforcing rods and concrete • Slush-mix under and between steel rods and make sure all cracks and voids are filled • Reinforcing rods should be completely surrounded by Kemrepair L in order to avoid corrosion • Then mix Kemrepair L to a thicker consistency and apply successive layers of 20 – 25 mm • Scratch each layer before applying the next in order to improve the bonding • Each new layer should be applied within 1 – 2 hours • When applying by hand Kemrepair L must be forced tightly into the substrate to ensure intimate contact with the pre-wetted substrate • Remodel to the original profile
Curing	• On completion of the repairing operation, exposed areas which are not to be cut back should be thoroughly cured by means of water application and wet hessian • Kemcure curing membrane for at least 48 hours can also be an alternative
Cleaning	Kemrepair L should be removed from tools and equipment immediately after use with clean water.
Theoretical coverage	1.75 Kg/m ² /1 mm thick
Packaging	25 kg Sacks
Shelf life & Storage	Kemrepair L has a shelf life of 12 months if maintained in dry storage conditions and unopened sacks
Precaution	• Do not apply when temperature is below 5 °C • Do not apply to dirt or clay covered surfaces • Do not add any concrete admixtures to the material • Do not add any sand, cement or lime • If the weather is hot or dry, cover with a plastic sheet • Protect from heavy rain within the first 8 hours
Health and Safety	• Kemrepair L is non-toxic if come in contact with skin • Use gloves to avoid contact with skins • If skin comes in contact, wash immediately with soap and water • Do not use solvents • Eye contamination must be immediately washed with water, then seek medical treatment • Do not breath dust, Use a practical mask
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 structure. PROKEM designs tailor made products should there be critical application that requires specific properties rather than our main range, then and for our customer's satisfaction, PROKEM reserves the right to change the properties of its products. All orders are accepted subject to our current term 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 a proper handling of our products.