

RM740

REPAIR MORTAR (HKHA CLASS 40)

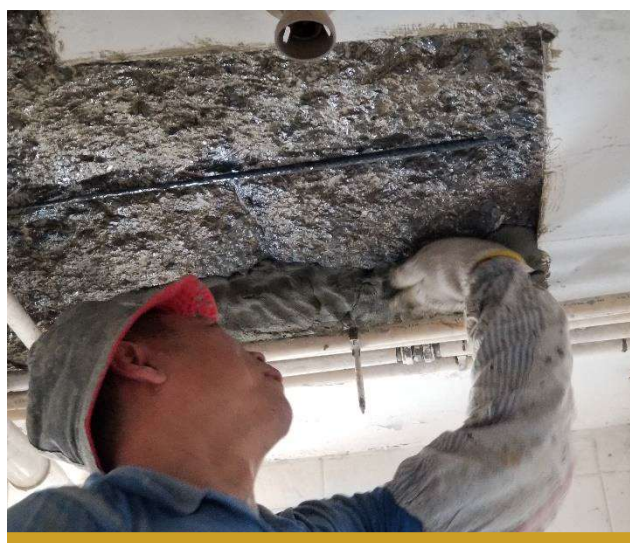
STRUCTURAL REPAIR MORTAR FOR CLASS 40 CONCRETE

PRODUCT DESCRIPTION

OPTIMIX RM740 REPAIR MORTAR (HKHA CLASS 40) is a high quality polymer modified and shrinkage-compensated mortar optimized for structural patch-repair purposes.

Formulated with lightweight aggregates it is especially suitable for vertical and overhead reinstatement of structural concrete and is routinely tested to demonstrate full compliance with Hong Kong Housing Authority (HKHA) Repair Mortar Specification Class 40.

Accredited with HKCI Product Conformity Certification Scheme – Repair Mortar (PCCS-RM).



TYPICAL USAGE

- Repair for spalled concrete elements caused by reinforcement corrosion.
- Patch up repair for general concrete defects such as voids and honeycombing.
- Structural or cosmetic repair for vertical and overhead applications.
- Reinstatement of defective concrete and protect the embedded steel reinforcement.
- The thickness of repair area should be 10mm or more with localized section of at least 5mm thick.
- The mortar can be applied up to 50mm thick as a single layer for vertical applications.
- The mortar can be applied up to 40mm thick as a single layer for overhead applications.

FEATURES AND BENEFITS

- Easy to Use
- High Early and Ultimate Strength
- High Build
- Reduction in Wastage
- Chloride And Carbonation Resistance
- Low Shrinkage
- Good Bonding to Substrate
- Consistent Quality

TECHNICAL DATA

Product Characteristics	Test Method	HKHA Class 40	OPTIMIX RM740
Compressive Strength at 28 days	TM1	30 - 60 MPa	Complies
Tensile Strength at 7 Days	TM2	> 2 MPa	Complies
Elastic Modulus at 28 Days	TM3	15 - 25 GPa	Complies
Bond Strength at 7 Days	TM4	> 2 MPa	Complies
Shrinkage (Coutinho Ring) at 28 days	TM5	No crack	Complies
Figg Air Permeability at 35 Days	TM6	> 200 sec.	Complies
Flexural Strength at 28 Days	EN1015-11	-	> 7.0 MPa
Pot Life*		> 60 minutes at 5°C 60 minutes at 15°C 45 minutes at 25°C 30 minutes at 35°C	
Typical Mixing Water (per bag)		3.9 – 4.3 L	
Wet Density		1,800 kg/m ³	
Yield (per bag)		16 L	
Packaging (per bag)		25 kg	
Shelf Life		12 months	

Note: The above are typical laboratory test results and can vary slightly depending on the ambient and substrate conditions during application. The tests were performed according to the national standard or in-house modification of the corresponding testing procedures (TM1-TM6) as set out in the HKHA Specification.

**Pot Life is dependent on the ambient temperature and the relative humidity, and the listed time frames are for reference only. The working temperature for this cementitious product should be between 5°C to 35°C.*

Environmental Data	
Volatile Organic Compounds (VOC)	≤ 10 g/L
Potential BEAM points	Product is manufactured within 800km of Hong Kong project sites
Packaging Composition	Paper bags incorporating 40% recycled paper





INSTALLATION GUIDE

(Refer to Method Statement for more details)

SURFACE PREPARATION

Break out the repair area and saw cut the perimeter at right angle to the face of the concrete to a depth of at least 10mm to avoid feather edges. Clean the exposed concrete surface and remove dust and loose particles. Expose and remove all loose rust from corroded reinforcement. Apply **OPTIMIX PE Polymer Emulsion** cement slurry primer (**PE** : Cement = 1 : 1.5) to the cleaned reinforcement and allow to dry in forming protective film.

Concrete substrate should be soaked with potable water to saturated surface dry conditions, and excess water should be removed.

A thin layer of **OPTIMIX PE Polymer Emulsion** cement slurry primer should be brushed onto the concrete surface. Repair mortar should be applied onto the primed area when the primer becomes tacky. If the primer dries out, a layer of fresh primer must be re-applied before application of the repair mortar.

MIXING

Mix one bag of **OPTIMIX RM740** dry powder with 3.9 - 4.3 L potable water. Mechanical mixing using a forced action mixer or a slow speed drill fitted with a suitable paddle is recommended. Mix the mixture for about 5 minutes or until a lump-free homogenous mix is achieved.

APPLICATION

Repair mortar should be placed and compacted onto the primed substrate by trowel or gloved hand. Depending on the substrate conditions and the density of the exposed reinforcement, the mortar may be applied to build up the required thickness under a single application. If sagging occurs or thicker section is required, it should be built up in multiple layers as appropriate.

FINISHING AND CURING

On completion of the surface finishing operation of the repair area, the exposed mortar surface should be cured immediately by the use of **OPTIMIX Curing Compound** or other appropriate means to prevent rapid drying out.

HEALTH AND SAFETY

OPTIMIX RM740 is alkaline in nature and can cause irritations to persons with sensitive skin. Avoid inhalation of dust and contact with skin and eyes. Wear suitable protective gloves and masks while handling the product. If contact with eyes, rinse immediately with plenty of clean water and seek medical advice. This product is non-toxic and is not flammable.

STORAGE

Store the products in a cool and dry place with the original unopened bags on pallets with plastic wrapping. Protect from direct sunlight, rainfall and exposure to high humidity conditions. Avoid excessive stacking of pallets. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging and reduce shelf life.

ALTERNATIVE PRODUCTS

Other similar products in the Optimix range include:

- **RM725 Repair Mortar (HKHA Class 25)** for structural repair of older concrete.
- **RM780 Repair Mortar (Rapid Setting)** for high strength floor and screed repairs.
- **BP168 Base Plaster (Premium)** for high strength rendering and render repairs.



Important Note: The information contained herein is, the best of our knowledge, true and reliable and is supported by the present state of our knowledge. No warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives as the conditions of use and any labour involved are beyond our control.