

# ISO REPAIR 640

## Product Data Sheet

### Description:

ISO REPAIR 640 is a polymer modified high build cementitious repair mortar for hand and trowel application. When mixed with the recommended amount of clean water, it forms a grey trowelable mortar, which is suitable for general purpose interior or exterior concrete and masonry repairs in vertical and overhead applications. ISO REPAIR 640 is specially formulated to produce a shrinkage compensated mortar giving a smooth finish with excellent adhesion and good water-resistant properties.

### Uses:

- Repair of damaged, weak or de-bonded concrete.
- Repair of honeycombed concrete.
- Repair of R.C.C. sections after de-shuttering.
- Patchwork repair on horizontal, vertical and overhead surfaces.
- Replacement of concrete suffering from attack by carbonation, chlorides, and sulfates.
- Replacement of spalled or mechanically damaged concrete.

### Advantages:

- Premixed powder
- requires only on-site addition of water.
- Shrinkage compensated.
- High compressive strength.
- Excellent bond strength to prepared surfaces.
- Durable, low permeability and weatherproof.
- High build, no slumping.
- Highly resistant to Carbonation and Chloride Ion ingress.



### Technical Properties:

Appearance :	Grey Powder
Water Powder ratio:	0.16
Density (Mixed) :	1.85 g/cc
Compressive strength at 7 days ASTM C 579:	20 N/mm <sup>2</sup> .
Compressive strength at 28 days ASTM C 579:	> 30 - 40 N/mm <sup>2</sup> .
Flexural strength at 28 days ASTM C 580 :	> 3.5 N/mm <sup>2</sup> .
Bond strength at 28 days BS 6319	> 2.6 N/mm <sup>2</sup> .
Drying Shrinkage at 7 days :	285 Micro strains - ASTM C 596 - 01.
Drying Shrinkage at 28 days :	430 Micro strains - ASTM C 596 -01
Water absorption ASTM C 413 :	0.95%
Pot Life :	30 minutes
Recommended application :	5- 50 mm thickness
Standards :	ASTM C 596 - 01, ASTM C 579/580



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## Application procedure :

### -Surface preparation:

The surface of the concrete to be repaired should be sound, clean and uncontaminated. The decayed or damaged area should be saw cut to a minimum depth of 8mm, keeping the sides of the area as square as possible. Loose materials must be removed carefully using suitable means such as hand chisels or chipping hammer. If the reinforcement is corroded make sure that the back of the steel is completely exposed. Then clean the steel to bright metal condition by grit blast or vigorous wire brushing.

### - Priming :

A. Reinforcement steel: on completion of the cleaning, prime the clean reinforcement steel .

B. Concrete: Pre-wet the contact surfaces and remove any standing water, apply a coat of ISO BOND S.B.R and

allow to become tacky before applying the ISO REPAIR 640 If the repair area will be subjected to permanently damp or wet conditions or there are known residues of chlorides in the surrounding concrete, prime the contact surfaces with ISO BOND epoxy primer for enhanced adhesion and to create a substrate barrier.

### MIXING:

ISO REPAIR 640 must be mixed with a heavy-duty high torque low-speed drill (300-400rpm) fitted with a suitable paddle. Slowly add the ISO REPAIR 640 powder to 4-4.5 lt. of clean and gauged water and mix for 2-3 minutes to produce a homogenous mortar. In elevated temperatures, it is advisable to use chilled water at below 25 degrees. It is not recommended to mix part bags as the water powder ratio is critically controlled.

### Placing and finishing :

Whilst the substrate is damp or epoxy primer is still tacky, apply the mortar mix and compact well. Application can be with a trowel or a rubber-gloved hand to paste the material in place. ISO REPAIR 640 can

be applied to the desired thickness in layers on vertical and overhead surfaces. High build application can be achieved by using a form-work. While applying multiple layers, the previous layer should be cross-hatched and allowed to set before applying the next coat. ISO REPAIR 640 can be applied up to a thickness of 50 mm at one pass if the ambient temperature is less than 25°C and the weather conditions are normal (no strong winds and low humidity) as this would result in rapid moisture evaporation.

ISO REPAIR 640 should be cured in accordance with good concrete practice by applying a suitable curing membrane and by covering the work with properly secured plastic sheeting. Protection against rapid drying from wind, sun or excessive heat is critical.

### Cleaning:

Clean all the tools with water immediately after use. Hardened materials can be removed mechanically only.

### Packing:

25 kg bag.

### Storage:

Store under cover, out of direct sunlight and protect from extreme temperatures. In tropical climates the product must be stored in air-conditioned environment.

### Shelf life:

Shelf life is up to 12 months when stored as per recommendations.

### Health and Safety:

As with all construction chemical product, caution should be always exercised. Protective clothing such as gloves and goggles should be worn. Treat any splashes to the skin or eyes with fresh water immediately. Should any of the products be accidentally allowed, do not induce vomiting, but call for medical assistance immediately.

Prior to each use of any product of ISOBIT, its subsidiaries or affiliates ("ISOBIT"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Datasheet which are available at [www.isobitiraq.com](http://www.isobitiraq.com) or by calling ISOBIT's Technical Service Department at +9647501136936. Nothing contained in any ISOBIT literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each ISOBIT product as set forth in the current product label, Product Data Sheet prior to use of the ISOBIT product. ISOBIT warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **NO**

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