

MasterCem R20[®]



Description

The **MasterCem R20[®]** is a high strength material containing blended non-shrink cements and chemical additives, to enhance the superior properties required for durable structural repair.

Key Features

- Compatible with the properties of typical concretes.
- High early strength.
- Very good adhesion to most construction materials.
- Hardens without shrinkage.
- High bond strength to steel and concrete.
- Easy to apply.
- Durable and hardwearing.
- Excellent resistance to a wide range of chemicals.
- Ready to use, simply add water.
- Non shrinkage mortar.
- Excellent adhesion to concrete and reinforcing bars.
- Extra low permeability helps minimize chloride intrusion.



Application Instructions

Surface Preparation: All loose particles, laitance, dust and grease etc., must be removed prior to application of **MasterCem R20[®]**. Concrete must be at least 4 - 6 weeks old, depending on climate, wire-brush, sand-or water-blasted or grind substrates.

Mixing: It is essential that quantity of one bag or more are mixed in a forced pan mixer or with a slow speed drill 500 rpm.

Always add powder to water and mix until homogeneous. The water must be clean, uncontaminated, and should not exceed 4.75 liter per bag.

Application: After mixing, **MasterCem R20[®]** should be compacted by trowel or gloved hand onto the primed substrate.

Care should be taken to ensure full compaction around any steel reinforcement.

Finish the completed repair, as required, taking care not to overwork the surface.

Curing: **MasterCem R20[®]** should be cured immediately after finishing with standard procedures and using ichem curing products.

MasterCem R20[®]



Technical Properties & Standards

Density	2.0 kg/l (of the fresh mortar) at 20° C (ASTM1475)	
	<u>at +25C ASTM C579-18</u>	
Compressive Strength	(3 days)	35 N/mm ²
	(7 days)	40 N/mm ²
	(28 days)	45-55 N/mm ²
Flexural-strength	9 N/mm ²	
Coefficient of Thermal Expansion	25 x 10-6 per °C (temp. range: 20 °C)	
Bond to concrete	2.5 N/mm ² (ASTM D4145)	

Application Properties

Mixing Ratio	4.75 Lt(of water)/25Kg
---------------------	------------------------

Product Information

Colour	gray
Base	Cement, selected fillers and aggregates, special additives
Packaging	25 kg bags

MasterCem R20[®]



Cleaning Tools

Tools and equipment should be cleaned, immediately after use, with **iSolv S40[®]**.

Quality

All products manufactured by iChemEG, or imported from iChemEG affiliate companies worldwide, are manufactured to procedures certified to conform to the quality, environment, health & safety management systems.

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 & safety

- PPE in accordance with the health and safety rules should be used during the materials application.
- For irritant effects of the non-cured material, avoid contact with skin and eyes during storage and application.
- If the contamination occurs, wash the contaminated part by soap and plenty of water so urgently contact to nearest hospital.
- Food and drink should be kept outside the application areas and should be kept in closed area.
- For further information refer to the iChem material safety data sheet.

