

TECHNICAL DATASHEET

ASCOCRETE MC 60

High Strength, Deep Pour Structural
Micro Concrete



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PRODUCT INTRODUCTION

ASCOCRETE MC 60 is a pre-mixed of advance cement, specially graded aggregates and special polymers to give a high strength, free flowing, structural micro-concrete suitable for large volume grout or repair applications to concrete. ASCOCRETE MC 60 is a non-metallic, incorporated additives, free from chlorides & is dual shrinkage compensated to completely fill voids from 10mm – 120mm in a single layer, ensuring the transfer of loads whilst developing excellent compressive strength.

KEY FEATURES

1. Economical
2. Dual shrinkage compensated allowing for long term dimensional stability
3. Flowable structural repair concrete for large volume repairs
4. High ultimate strength
5. Low permeability inhibits the ingress of chlorides and carbon dioxide
6. Excellent bond strength to adequately prepared concrete substrates
7. Free flowing through congested reinforcement arrays
8. Pumped or poured
9. Placement without any vibration

RECOMMENDED APPLICATIONS

1. Repair of concrete damaged by reinforcement corrosion or damage
2. Repairs to spalled columns, beams, slab etc. caused by corrosion of steel
3. High build repairs for vertical, overhead and horizontal repairs
4. Repairs requiring high compressive strength
5. Repairing damaged concrete panels where structural strength is required
6. Making good areas of honeycombed concrete

TECHNICAL PROPERTIES

Appearance	Non-metallic grey powder
Water Demand	18 ± 2 %
Chloride Content	Nil
Initial Setting Time	2-3 hours
Final Setting Time	6-8 hours
Fresh wet density	2300 ± 50 kg/m ³ depending upon consistency
Tensile Strength	≥ 3.5 N/mm ² @ 28 days
Flexural Strength	≥ 8 N/ mm ² @ 28 days
Expansion	0.45 %
Compressive Strength	≥ 45 N/mm ² @ 7 days
	≥ 65 N/mm ² @ 28 days

APPLICATION METHODS:

1. Surface Preparation

Substrates should be clean and free from all contaminants, loose particles, coatings, dirt, mold, oil etc.

2. Priming

All defective host substrate must be removed prior to application. Defective material includes cracked or structurally weakened surfaces and also chloride contaminated and carbonated concrete. A concrete corrosion expert must be consulted for critical projects or structural applications. Host concrete must be roughened and aggregate exposed to ensure good bond. Mechanical chipping or shot blasting of the surface is recommended for this purpose.

Substrates must be sound, rough & dampened to ensure a good bond. Prior to placing grout, surface should be saturated for a minimum period of four hours and preferably for twenty-four hours. Pre-wet the substrate so that it is slightly moist. Expose the grains close to the surface.

3. Condition for Use

- i. Temperature of the material, air and substrate: from minimum + 5 °C to maximum + 35 °C
- ii. Low temperatures increases, while the high temperatures decrease the working and setting time.

4. Mixing

Pour specified volume of potable water into a high shear mixing vessel. Start mixer and slowly add dry mortar ASCOCRETE MC 60. If powder addition is too fast then large lumps will form and final mix will be slow reaching uniform consistency. Mix thoroughly

with a mixer for approx. 3 minutes until homogeneous. Allow to mature for approx. 1 minute. Then mix again for at least 1 minute until the proper consistency for working has been achieved. More or less water may be added within the ratio limits specified on this data sheet

5. Application

Any cracked or weakened surface should be removed and repaired to provide a solid foundation. If any corroded steel is present remove all loose scale and corrosion/rust deposits. Grit blasting is effective in removing corrosion, and all steel including re-bars should be cleaned to a bright condition. Immediately after cleaning steel, the steel should be treated with ASCOPRIME RUSTCON. This will stop further oxidation and corrosion.

- i. Strictly follow water-powder ratio as specified.
- ii. For thickness more than 120 mm, addition of pre-calculated aggregates may be required. Addition of coarse aggregates up to 10 mm sizes is recommended up to 1:0.5 (1 part of ASCOCRETE MC 60 and half part of coarse aggregates).
- iii. Ensure that the shuttering is 100 % watertight.
- iv. Ensure full exposure of reinforced steel.

6. Pumping

Once the ASCOCRETE MC 60 has been mixed you need an effective pumping method to deliver it to the area of application. It is also best to pour or pump shorter distances using concrete pumps. Prior to pumping ASCOCRETE MC 60, rinse the mixer and charge the pump hopper with sufficient water to flush and cool the pump and all grout lines thoroughly. Check to ensure that all lines and hoses are clear. Once the site is ready for ASCOCRETE MC 60 placement, commence pumping. It is important to pump continuously and avoid the formation of cold joints. Clean down the tools, hopper, machinery and surrounding areas with clean water.

7. Curing

It is a very important to prevent early plastic state moisture loss prior to the product setting. Cure product thoroughly after it has set by keeping it wet and covered for at least 7 days or apply a curing compound.

8. Tools & Clean Up

Compulsory Mixing with twin-shaft mixer. If using a mixing pump, use a batch mixer. Clean tools with soapy water while the material is still fresh.

9. Packing

ASCOCRETE MC 60 is available in 30 Kg and 50 Kg sealed Bag

10. Shelf Life

6 months from production date if stored in original, unopened packaging, in places protected from moisture, sun exposure and frost.

11. Disposal

Larger quantities of leftover product should be disposed of in the original containers in accordance with the applicable regulations. Completely empty, clean containers should be recycled. Do not dispose of together with household waste. Do not allow to enter the sewage system. Do not empty into drains.

DISCLAIMER:

While the technical details & recommendations contained in this document and the related details given by the representatives of the company correspond to the best of our knowledge & experience, all the above information must in any case be considered as merely indicative and subject to confirmation. Users are recommended to conduct a product suitability test before it is used at full scale. In any case, the consumer alone is entirely liable for any consequences resulting from using the product. For the most up-to-date TDS, please visit our website at www.ascolite.in. Our company policy is one of ongoing R&D; therefore, we reserve the right to update this information without prior notice at any time. As the correct identification of the problems, the quality of other materials used, on-site environmental conditions and the workmanship on-site are factors beyond our control, there is no express or implied guarantee/warranty as to the results achieved. The company assumes no liability or consequential damage arising from the use of our products for unsatisfactory results. Site visits are not a supervisory responsibility wherever provided. Suggestions made either verbally or in writing by the company may be followed, modified or rejected by the owner, engineer or contractor, since they are solely responsible for carrying out procedures appropriate to a specific application.