

# Emaco S74

## Shrinkage controlled concrete for all types of structural repairs

### Description

Emaco S74 is a ready to use mixture consisting of dry powders and selected aggregates specially formulated to produce shrinkage compensated, consistent, fluid concrete, requiring only the addition of potable water on site.

### Conformance

Emaco S74 has been formulated to meet the requirements of the SABS Test Method 862-2:1994 and ASTM C1437-01.

### Primary Uses

Emaco S74 is suitable for the following:-

- Structural repairs requiring high fluidity e.g. heavily congested steel
- As a mass infill repair mortar for structural repairs where there is load bearing.
- Soffit repairs where heavy loadbearing is required.
- Repairs to restricted access areas, where use of hand applied mortars would prove impractical.
- Repairs to columns suffering from major loss of section.

### Special Features

- User friendly – It is ready to use from the bag, suited to local conditions and easy to apply
- Economical – If repairs are carried out correctly the first time it is very much more cost effective.
- Enhanced durability – works in tandem with extremely low permeability to prolong effective service life.
- Compatibility – Modulus of repair medium is compatible to that of host concrete.

### Limitations

Do not attempt structural repairs on a 5°C and falling temperature scale. Avoid excessive heat (35-40°C) Cooling of mix water or covering of area with shade netting may be necessary to reduce heat. The maximum lift should not exceed 300 mm unless precautions are taken. Not suitable for “Trowel on” application.

### Water Addition

Water added at the following rates per 25kg bag of Emaco S74 will give the consistency indicated:-

	Water addition	Yield
Plastic	1.7 l	12 l
Flowable	1.85 l	12.5 l

### Application procedure

#### Preparation

It is essential that the surface of the concrete to be repaired is sound, clean and uncontaminated. Corrosion must be removed from steel reinforcement before application of Emaco®S74. In certain instances where there is a significant loss of section, the steel may have to be replaced. Defective areas should have a 20mm deep saw cut made around the perimeter. Cut back all defective concrete to a sound base. Feather edging must be avoided. Minimum thickness of repair should not be less than 40mm.

Care should be taken to ensure formwork is water tight and constructed in line with normal concreting practice. The use of formwork tape (Groutex) is recommended in order to eliminate grout loss.

# Emaco S74

## Typical properties

Wet density:	approx. 2300 kg/m <sup>3</sup>
Compressive strength at 20°C BS 1881 Part 116:	>25 N/mm <sup>2</sup> at 1 day >35 N/mm <sup>2</sup> at 3 days >45 N/mm <sup>2</sup> at 7 days >65 N/mm <sup>2</sup> at 28 days
Indirect tensile strength BS 1881 Part 117:	2.8 N/mm <sup>2</sup> at 28 days
Resistivity :	10000Ω
Water penetration DIN 1048 Part 5:	>30 times better than low permeability concrete
Co-efficient of oxygen diffusion	7.33 x 10 <sup>-9</sup>

## Storage

Store under cover, out of direct sunlight and protect from extremes of temperatures.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult BASF Construction Chemicals SA's Technical Services Department.

## Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes mouth, skin and foodstuffs (which can also be tainted with vapour until product is fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use.

## Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF Construction Chemicals SA representative. BASF Construction Chemicals SA reserves the right to have the true cause of any difficulty determined by accepted test methods

## Quality and care

All products originating from BASF Construction Chemicals' SA facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001:2000.

---

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

As all BASF's technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.

---

### **BASF Construction Chemicals South Africa (Pty) Ltd**

852 Sixteenth Road, Midrand  
PO Box 2803, Halfway House, 1685  
Tel: +27 11 203 2405  
Fax: +27 11 203 2679  
Website : [www.basf-cc.co.za](http://www.basf-cc.co.za)

11 Pullinger Street, Westonaria, 1779  
P.O. Box 420, Westonaria, 1780  
Tel: +27 11 754 1343  
Fax: +27 11 754 1105