

# MICROCONE RGL 75

General purpose,  
non-shrink, cementitious  
micro-concrete



## Description:

MICROCONE RGL 75 is supplied as a ready to use blend of dry powders which requires only the site addition of clean water to produce a free-flowing non-shrink repair micro concrete. The material is based on Portland cements, graded aggregates and fillers, and additives which impart controlled expansion characteristics in the plastic state, while minimising water demand. The low water requirement ensures high early strength and long-term durability.

## Uses:

- For repairs to damaged reinforced concrete elements, particularly where access is restricted and where vibration of the placed material is difficult or impossible.
- It is suitable for various structural strengthening measures such as encasement build-ups, jacketing, piletop encapsulation resin system, etc
- Quay steath and pillor, bridge colum, concrete pillor, dams concrete repair
- Repair of RCC structure on the shore of a harbour or bank of a river, canal where ships may docks

## Advantages:

- Gaseous expansion system compensates for shrinkage and settlement in the plastic state
- Can be pumped or poured into restricted locations
- Fluidity to allow for placement without vibration
- Pre-bagged to overcome site-batched variations
- Rapid strength gain to facilitate early reinstatement
- High ultimate strengths and low permeability of cured repair

- Contains no chloride admixture
- Ensures piletop integrity as part of a waterproofing system

## Product standard Compliance:

- DIN 1048 part-5
- BS 6319 pt. 3
- BS 1881 pt.1161 & pt. 122

## Technical Information:

Properties	Specification
Appearance	Powder
Color	Grey
Wet density	2300 - 2400 kg/m <sup>3</sup>
Thermal conductivity	1.5 W/m°C
Coefficient of thermal expansion	10 - 12 x 10 <sup>-6</sup> /°C.
Expansion characteristics	Unrestrained expansion of 1 to 4%. Plastic expansion - Approx. 0.004N/mm <sup>2</sup>
Young's Modulus	25 kN/mm <sup>2</sup>
Flexural strength	8N/mm <sup>2</sup> @ 28 days
Tensile Strength	2N/mm <sup>2</sup> @ 28 days

Compressive strength (N/mm <sup>2</sup> )	1 Day	30
	7 Days	60
	28 Days	75

**Application Procedure:**

- Defective concrete surfaces must be cut back to a sound base than smooth surfaces should be mechanically roughened.
- Corroded reinforcing steel should be exposed around its full circumference and cleaned to remove all loose scale and corrosion deposits. It is important to clean the steel to a bright condition. Grit-blasting is recommended.
- Immediately prior to placing, any free water should be removed.
- Care should be taken to ensure that MICROCONCRETE RGL 75 is thoroughly mixed in a forced-action mixer of adequate capacity. The quantity water required will generally be between 3.50 to 3.75 liters per 25 kg bag of MICROCONCRETE RGL 75. With the mixer running, slowly empty MICROCONCRETE RGL 75 bag into the mixer. Mix continuously for 5 minutes, ensuring a smooth even consistency of the mix. Where the addition of graded coarse aggregate has been specified it should be added after the water and MICROCONCRETE RGL 75 are properly mixed. Mixing should then continue for a further 1 minute.

**Form Work:**

Slurry tight form work that will not deform or leak when subjected to hydraulic pressure imposed by the micro concrete will be fabricated and erected where the material is gravity fed, provision in the form work will be made for a suitable feed hopper at the highest point. Where necessary, provision will be made for air vents to prevent air entrapment. Form work will be coated with REMOL mould releasing agent prior to fixing.

**Placing:**

The mixed material should be placed immediately. If placed by pump, standard concrete pumping practice should be followed. The pump and pipeline must be primed with cement slurry. Pumping should be commenced immediately after priming. If poured in the form work, avoid air entrapment by pouring from one side only.

**Low Temperature Working:**

In cold conditions down to 15°C, the use of warm water (up to 30°C) is advisable to accelerate strength development. Normal precautions for working with cementitious materials in winter should be adopted.

**High Temperature Working:**

At ambient temperature above 35°C the material should be stored in the shade and cold water used for mixing.

**Curing:**

As MICROCONCRETE RGL 75 is a cement-based repair material, it must be cured immediately after stripping the formwork in accordance with good concrete practice.

**Packaging:**

MICROCONCRETE RGL 75 is supplied in 25 kg bags.

**Storage & Shelf-life:**

MICROCONCRETE RGL 75 has a shelf life of 06 months if kept in a dry store in the original, unopened bags. If stored at high temperatures or high humidity conditions the shelf life may be reduced.

**Health & Safety:**

MICROCONCRETE RGL 75 contains cement powders which, during normal use, have no harmful effect on dry skin. However, when MICROCONCRETE RGL 75 is mixed, or becomes damp, alkali is released which can be harmful to the skin. During use, avoid inhalation of dust and contact with skin and eyes. Wear suitable gloves, eye protection and dust masks. The use of barrier creams is recommended. In case of contact with skin, wash with clean water. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting.

**Fire:**

MICROCONCRETE RGL 75 is non-flammable.



It is the practice of increasing efficiency with which buildings use resources- energy, water and materials-while reducing building impacts on human health and the environment.



ISO 45001 is the world's international standard for occupational health and safety, issued to protect employees and visitors from work-related accidents and diseases.



ISO 9001:2015 is a globally recognized standard for quality management systems (QMS). It helps organizations of all sizes and sectors to: Improve performance, Meet customer expectations, Demonstrate commitment to quality, and Identify and improve processes that lack consistency.



ISO 14001 is the internationally recognized standard for environmental management systems (EMS). It provides a framework for organizations to design and implement an EMS, and continually improve their environmental performance



This symbol is used to identify Redwop products which give off a low level of volatile organic compounds(VOC) as certified by GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.



Our Commitment To The Environment Redwop products assist Project Designers and Contractors create innovative LEED (The Leadership in Energy and Environmental Design) certified projects, in compliance with the U.S. Green Building Council.



ISO/IEC 17025 enables laboratories to demonstrate that they operate competently and generate valid results, thereby promoting confidence in their work both nationally and around the world.