

# MasterEmaco S 820CI

Cementitious spray applied repair mortar with active corrosion inhibition

## Material Description

MasterEmaco S 820CI is a ready-to-use, cement based shotcrete mix with reduced rebound and active corrosion inhibition. It is specially designed for civil and mining applications using either the wet or dry shotcreting systems.

## Areas of Application

- Repairs to the underside of bridge decks, bridge piers and beams, tunnels, drains, sea walls, and culverts.
- Reinstating eroded concrete in sewers prior to the application of MasterEmaco S 680.
- Tunnel linings and embankment stabilisation.

## Characteristics and Benefits

- Active corrosion inhibition - reduced possibility of incipient anodes and longer lasting patches
- Easy to use - requires only the addition of potable water for mixing or spraying
- Versatile - is easily sprayed using the wet mix shotcrete system or dry mix systems
- Good working time - over one hour at 21°C
- Addition of polymer - improved bonding and impermeability of hardened shotcrete
- Controlled shrinkage - reduced cracking tendency

## Properties

Age	Compressive Strength MPa	Flexural Strength MPa
1 day	30.0	3.0
3 days	45.0	4.0
7 days	60.0	5.0
28 days	70.0	6.0

*All performance data is determined by testing actual, in-place shotcreted specimens such as cores and beams taken from test panels.*

*Reasonable variations from the data shown can be expected, depending on the care taken in evaluating test specimens, and jobsite conditions such as the quality of substrate preparation,*

*level of expertise of the nozzleman, curing procedures and weather.*

## Application

Prepare the surface to be shotcreted by removing all unsound concrete, dirt, dust and debris. A surface profile of CSP 7 or greater is desired. For structural repairs to existing concrete members, saturate the properly prepared concrete surface for a minimum of 7 hours prior to shotcreting.

Mix MasterEmaco S 820CI with approximately 1.8-2.5 litres of water per 20kg bag.

MasterEmaco S 820CI can be shotcreted in depths ranging from 10 - 150mm in one pass.

## Curing

Proper curing is extremely important. Wet curing is recommended for the first 3-5 days, after that time continue curing by the use of a quality curing compound such as MasterKure 404 or MasterKure 250. If MasterEmaco P 157 is mixed with MasterEmaco S 820CI then only MasterKure 404 should be used. Do not use solvent-based curing compounds such as MasterKure 402.

## Estimating Data

One 20kg bag of MasterEmaco S 820CI mixed with water yields approximately 10.2 litres (0.0102m<sup>3</sup>).

MasterEmaco S 820CI				
L	Thickness in mm /m <sup>2</sup>	m <sup>3</sup>	bags /m <sup>3</sup>	m <sup>2</sup> /mm thickness
10.2	10.2mm	(0.0102)	98	10.2 m <sup>2</sup>

Allowance must be made for rebound and cut off for finishing which will reduce the coverage accordingly.

An allowance of 5-10% can be made for rebound which assumes an experienced nozzleman and ideal conditions. For overhead spraying the rebound allowance may be increased to 10-50%.

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## Packaging

MasterEmaco S 820CI is available in 20kg bags.

## Storage & Shelf Life

MasterEmaco S 820CI has a shelf life of 12 months. Store out of direct sunlight, clear of the ground on pallets protected from rainfall.

## Precautions

For the full health and safety hazard information and how to safely handle and use this product, make sure that you obtain a copy of the Safety Data Sheet (SDS) from our office or website.

## Disclaimer

MasterEmaco-S820CI-ANZ-VI I-0523

### STATEMENT OF RESPONSIBILITY

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