

MasterCrete CI 820

Cementitious spray applied repair mortar with active corrosion inhibition

Material Description

MasterCrete CI 820 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 **MasterCrete CAC 620/680/682**.
- 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 **MasterCrete CI 820** with approximately 1.8-2.5 litres of water per 20kg bag.

MasterCrete CI 820 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 **MasterCrete PRI 157** is mixed with **MasterCrete CI 820** then only **MasterKure 404** should be used. Do not use solvent-based curing compounds such as **MasterKure 402**.

Estimating Data

One 20kg bag of **MasterCrete CI 820** mixed with water yields approximately 10.2 litres (0.0102m³).

MasterCrete CI 820				
L	Thickness in mm /m ²	m ³	bags /m ³	m ² /mm thickness
10.2	10.2mm	(0.0102)	98	10.2 m ²

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

MasterCrete CI 820 is available in 20kg bags.

Storage & Shelf Life

MasterCrete CI 820 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

MasterCrete-CI 820-ANZ-VI-1125

STATEMENT OF RESPONSIBILITY

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