

# MasterEmaco® T 920CI

**Cementitious high strength rapid setting trafficable repair mortar with active corrosion inhibition**

## MATERIAL DESCRIPTION

**MasterEmaco T 920CI** is a high strength, shrinkage compensated micro concrete for the repair of concrete surfaces in both new and existing construction. Highly workable, this multi-purpose pea gravel micro concrete handles easily at 100mm slump and possesses excellent working time and superior performance.

## AREAS OF APPLICATION

- Floor repair and overlay
- Pavement repair
- Traffic surface repair
- Repair to structural members including pre-stressed and post-tensioned elements

## CHARACTERISTICS AND BENEFITS

- **High ultimate strength and abrasion resistance** – durable trafficable surface up to twice the abrasion resistance of 25MPa concrete
- **Extended working time** - aids the finishing and/or enables the application of dry shake finishes
- **Controlled shrinkage** - reduced cracking tendency
- **Active corrosion inhibition** – long life repairs even in aggressive environments

## PROPERTIES

Compressive Strength	
24 hours	45 MPa
3 days	65 MPa
7 days	75 MPa
28 days	85 MPa
Flexural Strength	
7days	9 MPa
28 days	9 MPa
Modulus of Elasticity	
7 days	30 GPa
28 days	38 GPa
Electrical Resistivity	
56 days	27900 Ohm cm
Shrinkage AS 1478- 2005 appendix B @ 28Days	Less than 700 microstrain
Chloride Ion diffusion (NORD test)	3.38E-12m <sup>2</sup> /sec
Permeability risk for Chlorides and sulphates FM5-578	Very low

Supply form	grey powder
Granulometry	max. 6 mm
Layer thickness	25 to 200 mm
Water addition	1.7 L-1.9 L/20kg bag
Specific gravity mixed	2.1 - 2.3 kg/L
Application temperature (ambient and substrate)	+7°C to +35°C

The performance data is typical and based upon controlled laboratory conditions. Actual performance on the job site may vary from these values based on actual site conditions.

## Pot Life

**MasterEmaco T 920CI** has a working time of approximately 60 minutes at 20°C.

## APPLICATION

### Substrate Condition

Surfaces to be repaired, should be taken back to expose sound course aggregate and be free from oils, grease and other contaminants. A surface profile of CSP 7 or greater is required. To obtain permanent type repairs, the edge of the patch should be square cut to a depth of not less than 25mm. Feather edging of repairs should be avoided, as this will compromise durability. Remove all dust and debris and saturate the surface with water to achieve a saturated surface dry condition. Surface water should not be present.

### Mixing

Add 1.7-1.9 litres of clean water to a clean pail and whilst mixing slowly, add the **MasterEmaco T 920CI** powder. Continue to mix for a further 3-4 minutes until the mortar is homogeneous and lump free. Adjust consistency to the desired slump but do not exceed the maximum water addition.

### Priming

For floor and slab applications, the surface should be primed with a slurry made from the **MasterEmaco T 920CI** and water and then brushed into the surface. Do not allow the primer to dry. Application must proceed 'wet on wet'. Where the primer is allowed to dry a fresh prime coat must be applied before proceeding. **MasterEmaco P 157** and **MasterEmaco 2525** could be used as alternate primers.

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### Application

For floor slab and pavement repairs, mix, place, screed, float and finish the mortar to the desired surface texture. **MasterEmaco T 920CI** mortar provides excellent working time in warm environments. With cool or cold temperatures, the use of warm water will minimise finishing time. Where a higher workability is required, MasterRheobuild 1000 may be added – refer to Master Builders Solutions. For vertical surfaces where forms will retain the mortar, place behind the forms and thoroughly consolidate the mortar. The mortar may also be pumped and placed by a suitable grout pump. Refer to Master Builders Solutions for more data.

**MasterKure 111** evaporation retarder and finishing aid can be used on larger applications and in hot dry windy exposed conditions.

### 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**.

### ESTIMATING DATA

Approximately 2.0kg of **MasterEmaco T 920CI** mixed and placed as recommended, is required per m<sup>2</sup> at 1mm thickness.

MasterEmaco T 920CI				
L	Thickness in mm /m <sup>2</sup>	m <sup>3</sup>	bags /m <sup>3</sup>	m <sup>2</sup> /mm thickness
9.9	9.9mm	(0.0099)	101	9.9 m <sup>2</sup>

### PACKAGING

**MasterEmaco T 920CI** is packaged in 20kg moisture resistant bags.

### SHELF LIFE

**MasterEmaco T 920CI** can be stored in tightly sealed original bags for 12 months if kept dry and at warehouse temperatures.

### 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-T920CI-ANZ-V11-1220

### STATEMENT OF RESPONSIBILITY

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