

# MasterEmaco® T 920

## NOTES TO SPECIFIERS:

THE PURPOSE OF THIS GUIDE SPECIFICATION IS TO ASSIST THE SPECIFIER IN DEVELOPING A PROJECT SPECIFICATION FOR THE USE OF BASF COSTRUCTIONS SYSTEMS PRODUCTS.

THIS GUIDE SPECIFICATION WILL NEED TO BE CAREFULLY REVIEWED FOR APPROPRIATENESS FOR THE GIVEN PROJECT AND EDITED ACCORDINGLY TO COMPLY WITH PROJECT-SPECIFIC REQUIREMENTS.

## PART 1 - GENERAL

### 1.1 SUMMARY

#### A. Section Includes:

1. Application of 1-component, shrinkage-compensated, cement-based micro concrete with extended working time, designed for repairing horizontal concrete surfaces.

### 1.2 SUBMITTALS

#### A. Product Data: Submit manufacturer's technical data sheets and Safety datasheet information for each product.

#### B. Quality Control Submittals:

1. Provide protection plan of surrounding areas and non-cementitious surfaces.

### 1.3 QUALITY ASSURANCE

#### A. Qualifications:

1. Manufacturer Qualifications: Company with minimum 15 years of experience in manufacturing of specified products.
2. Manufacturer Qualifications: Company shall be ISO 9001:2000 Certified.



We create chemistry

3. Applicator Qualifications: Company with minimum of 5 years experience in application of specified products on projects of similar size and scope, and is acceptable to product manufacturer.
  - a. Successful completion of a minimum of 5 projects of similar size and complexity to specified Work.

#### 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Comply with manufacturer's ordering instructions and lead-time requirements to avoid construction delays.
- B. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.
- C. Store tightly sealed materials off ground and away from moisture, direct sunlight, extreme heat, and freezing temperatures.

#### 1.5 PROJECT CONDITIONS

- A. Environmental Requirements:
  1. Ensure that substrate surface and ambient air temperature are minimum of 7 °C and rising at application time and remain above 7 °C for at least 24 hours after application.
  2. Do not apply material if rain, fog, and mist are anticipated within 12 hours after application.
  3. Allow surfaces to attain temperature and conditions specified before proceeding with mortar application.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Subject to compliance with requirements, provide products from the following manufacturer:

BASF Australia Pty Ltd

Construction Chemicals

11 Stanton Rd

Seven Hills 2147

Customer Service: 1300 227 300

Internet: [www.master-builders-solutions.BASF.com.au](http://www.master-builders-solutions.BASF.com.au)

- B. Specifications and Drawings are based on manufacturer's proprietary literature from BASF.

## 2.2 MATERIALS

- A. One-component, shrinkage-compensated, cement-based mortar with extended working time for repairing horizontal concrete surfaces.

1. Acceptable Product: **MasterEmaco T 920** by BASF.

- B. Performance Requirements: Provide mortar material complying with the following requirements:

Compressive Strength	
24 hours	45 MPa
3 days	65 MPa
7 days	75 MPa
28 days	85 MPa
Flexural Strength	
7 days	9 MPa
28 days	9 MPa
Modulus of Elasticity	
7 days	30 GPa
28 days	38 GPa
Electrical Resistivity	
56 days	27900 Ohm cm
Expansion	+ 0.001 - 0.01%
Supply form	grey powder
Granulometry	max. 7 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.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Verify concrete substrate is structurally sound and fully cured (28 days).

### 3.2 SURFACE PREPARATION

- A. Protection: Protect adjacent Work areas and finish surfaces from damage during repair mortar application.
- B. Prepare surfaces in accordance with manufacturer's instructions.
- C. Concrete:
  - 1. Ensure concrete is structurally sound and fully cured (28 days).
  - 2. Saw cut perimeter of area being patched into square with minimum depth of 10 mm.
  - 3. Remove unsound concrete and roughen surface to minimum 6 mm profile amplitude CSP 6 and above.
  - 4. Remove laitance, oil, grease, curing compounds, and other contaminants that could prevent adequate bond.
  - 5. Saturate concrete substrate to saturated surface-dry (SSD), without standing water, before application.
- D. Reinforcing Steel:
  - 1. Remove oxidation and scale from exposed reinforcing steel to SA 2.5 and coat with **MasterEmaco P5000AP** to prevent further corrosion

### 3.3 MIXING

- A. Mix materials in accordance with manufacturer's instructions.
- B. Mix continuously at slow speed to avoid air entrainment.
- C. Mix for minimum of 3 minutes until fully homogeneous.
- D. Add aggregate extension, if required, in accordance with manufacturer's instructions.
- E. Mix no more material than can be placed in 20 to 30 minutes at 20 degrees C and 50 percent relative humidity.

### 3.4 APPLICATION

- A. Place and cure mortar in accordance with manufacturer's instructions.
- B. Placement:
  - 1. Dampen surface with clean water to obtain saturated surface-dry (SSD) with no standing water.
  - 2. Ensure proper consolidation of mortar and compaction around reinforcing steel.
  - 3. Apply **MasterEmaco T 920CI** into the hole to be filled and ensure it completely fills the void.
  - 4. Finish completed repair, as required, taking care not to overwork surface.
- C. Curing:
  - 1. Cure mortar immediately after finishing.
  - 2. Use water-based curing compound that complies with AS/NZS 3799 such as **MasterKure 250**.

### 3.5 PROTECTION

- A. Protect repair mortar from damage during construction.

END OF SECTION

#### **Disclaimer**

This information and all further technical advice are based on BASF's present knowledge and experience. However, BASF assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights. In particular, BASF disclaims all CONDITIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY. BASF SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. BASF reserves the right to make any changes according to technological progress or further developments. It is the customer's responsibility and obligation to carefully inspect and test any incoming goods. Performance of the product(s) described herein should be verified by testing and carried out only by qualified experts. It is the sole responsibility of the customer to carry out and arrange for any such testing. Reference to trade names used by other companies is neither a recommendation, nor an endorsement of any product and does not imply that similar products could not be used.

