



Very
High
Durability
Repair &
Prevention
System



Certified Quality System since **FEBRUARY 1993**

From Project to Jobsite

BS 110 CORAZZA

**RHEOPLASTIC ANTI-SHRINKAGE ARMoured MORTAR
WITH VERY HIGH MECHANICAL STRENGTH**

also available in MuCis® - Multiple Corrosion Inhibiting Synergies version

R4

NORMA EUROPEA

**CE approved – Certificate n. 1305 - CPD - 0808
EN 1504-3 Class R4**

Description BS 110 CORAZZA is a cement based pre-mix ready-to-use with special steel fibres (length 3 cm, tensile strength > 1.200 MPa), which forms, after mixing with water, a mortar which can be applied by pouring, or, in a more plastic consistency, with light vibration to avoid blockage. The product is having very high adhesion due to its special composition, it is impermeable to water, and has virtually no shrinkage, with exceptional values of flexural strength, resilience and ductility. On request, the product is also available in the version modified with migrating and contact corrosion inhibitors: BS 110 CORAZZA MuCis®.

Advantages and characteristics

- Flexural strength reaches and exceeds 14 N/mm²
- The diffused presence of the special steel fibres in the cementitious matrix and the perfect adhesion result in an improved wear resistance and fatigue, and allows to stop eventual cracks created through the movement stresses
- Dimensional stability.
- Very strong adhesion to foundation or reinforcement steel.
- Optimal durability against chemical attack, frost/thaw cycling, resistance to fat and oils.
- Very high resistance against penetration of water, even under pressure.

Fields of use

- Wherever there will probably be exceptional stresses on the structure, or to anticipate them: impact, shocks, etc. The eventual formation of cracks, in the heavy sollicitated area, is reduced and the load-bearing properties of the structures not effected, due to the exceptional resistance of the product towards crack propagation.
- Anchoring of machines which generate high dynamic stresses and realization of parts of structures in which the advantages of the omni-directional distribution of the steel fibre are demanded
- Repairs on substrates which are particularly heavy sollicitated.
- In the case of prolonged contact with acidic water or with high concentrations of chlorides, it is advisable to foresee an optimal protection for the product, or to contact our Technical Department.

Emission date : 01/2006
Revision date : 10/2013

Nr. rev. : 6

BS 110 CORAZZA
pag. 1/3

TECNOCHEM ITALIANA S.p.A.
24030 BARZANA (BERGAMO) ITALY – VIA SORTE 2/4,
TEL. **39 035 55.48.11 – TELEFAX **39 035 55.48.16
E-mail: info@tecnochem.it - www.tecnochem.it

From Project to Jobsite

- Method of use**
- Eliminate spalling concrete, get exposed the rusted steel bars, remove rust .
 - Remove all deteriorated parts of substrate, powder, fat , oils, or other substances which may jeopardise good adhesion, by hand or mechanically.
 - Use always the content of full bags (do not use halve ones)
 - Wet the contact surfaces until thoroughly soaked, starting some hours before application to eliminate the substrate absorption.
 - Excess water, either on the surface or in cavities, must be removed by compressed air or sponges immediately prior to application.
 - The average amount of water for a plastic mix is about 11-13 l. per 100 Kg powder.
 - The average amount of water for a fluid mix is about 13-15 l per 100 Kg powder.
Mix 3 to 4 minutes (or depending on the efficiency of the mixer , till an homogeneous and lumpfree paste is obtained, with the steel fibres well dispersed). Add always the powder to the water, but hold back a certain amount of water to adjust the thixotropy.
 - In the case of application in higher thickness, add from 25% to 40 % sand or quartz (washed and of good quality) from 2-3 mm to 6 mm (or from 2-3 to 20 mm depending on the dimensions of the repair).
 - Adjust the thixotropy of the mix by adding the retained water, when required. The amount of water can vary with changing temperature, humidity and ambient conditions.
 - Once the mix is ready, pour the grout into the formwork in one manipulation, allowing the entrapped air to escape.
 - Try to finish the pour in one operation.
 - In order to assure that all the cavities and pores between grout and substrate are filled, assist the mortar in flowing by means of simple vibration with a piece of wood or rebar
 - For the resurfacing and repair of slabs, a more plastic consistency is used, and the material is spread by vibrating screeding bar and finished by trowelling. Optimal result is obtained to apply BS 110 CORAZZA, after the saturation of the substrate with water, in a plastic consistency, and finish , after hardening, with a more fluid paste, to apply the top (from 1 to 2 mm max.)
 - In the case of large surfaces, it is essential to fix reinforcement bars to the support for additional strengthening.
 - After finishing, and not completely hardened, is advised to keep the surface moist to avoid evaporation of the water. This operation is certainly essential for applications in dry and hot conditions, or with much ventilation or draft. Keep the substrate moist for a few days, or apply the curing membrane (Curing Compound UR 19)

Remarks Information according to 2003/53/CE

Storage: The product can be kept for at least 12 months if stored in dry and protected conditions, in the original packaging, between +5°C and + 35°C.

Do not use the content of open bags if there are lumps in the powder.

Packaging Comp A: 25 Kg bag on 1400 kg pallet

Comp B: FIBRE – tec ST N little bags of 0,75 kg in boxes of 21 kg

(2 boxes = 42 kg per pallet of 1400 kg)



Very
High
Durability
Repair &
Prevention
System



Certified Quality System since **FEBRUARY 1993**

From Project to Jobsite

Technical characteristics (typical values)	• Initial setting time: approx 1 h at 20°C	
	• Bleeding : absent	
• Compressive strength (UNI EN 196/1)	N/mm ²	50 (1 d.) 90÷115 (28 d.)
• Flexural strength (UNI EN 196/1)	N/mm ²	8 (1 d.) 15÷22 (28 d.)
• Static Elasticity Modulus (UNI 6556)	N/mm ²	35.000 (28 d.)
• Adhesion to concrete (Highway method)	N/mm ²	5,50 (28 d.)
• Pull-out	N/mm ²	> 20 (28 d.)
• Carbonation in time (UNI 9944)	10 years mm	0,1
	18 years mm	0,3
	25 years mm	0,6
• Resist. to CO ₂ penetration	μ	11.000
• Water vapour permeability coeff.	μ	65
• ① Res. FROST/THAW (EN 104-840-3)		> 50 cycles
• ② Resistance to chlorides	Coulomb	310
• Type of mortar	mortar/microconcrete/grout	
• N. of components	mono	
• Advised layer thickness	mm	40÷300
• Application	in formwork	
• Curing : wet	YES	
• Curing : protected	SE	
• Typical application	resistance to fatigue, impact	
• Setting time	normal	
• Hardening	normal	
• Shrinkage compensation	YES ++	
• Consumption	Kg/m ² /mm	2,5
• Dosage	also +40% gravel	

1N/mm² = 1MPa = 10,19 Kg/cm²

* the formulation for this type of products can be also made with the addition of corrosion inhibitors and MuCis[®].

① Freeze and thaw resistance in the presence of salt. SIA 162 11/91 (< 600 gr/sm= very high freeze and thaw resistance)

② Chlorides permeability. FH WA RD/81 (100 = 1000 COULOMB = very low chlorides permeability)



MuCis Multiple Corrosion Inhibiting Synergies

AED Very High Deformation Energy

Safety indications Read carefully the safety indications on the packaging, or consult the relevant Material Safety Data Sheet of this product.

The above information is based on our best experiences and lab results and on results of the application of the product in various fields. Tecnochem Italiana is not responsible for negative performances due to not proper use of the product or for defects due to elements not connected with the quality of the product included wrong storage.

Technical characteristic in this technical data sheet are up-to-dated periodically. Revision date of this technical data sheet is indicated below. Changes of this data sheet can be found in our web-site www.tecnochem.it where you can find the same technical data sheet updated in real time.

Emission date : 01/2006
Revision date : 10/2013

Nr. rev. : 6

BS 110 CORAZZA
pag. 3/3

TECNOCHEM ITALIANA S.p.A.
24030 BARZANA (BERGAMO) ITALY – VIA SORTE 2/4,
TEL. **39 035 55.48.11 – TELEFAX **39 035 55.48.16
E-mail: info@tecnochem.it - www.tecnochem.it