DESCRIPTION
INTORIS MC is an anti shrinkage mortar pourable fiber reinforced with a special composition of polypropylene fibers expansive with an high mechanical resistance for the restoration of damaged concrete and the reinforcement of concrete in general, with high bonding strength on steel and concrete. Waterproof and impervious to chemical attack, sulphate resistant. Is suitable for fluid jets in formworks. Available R3-CC and R4-CC

COMPOSITION
Special sulphate resistant cements, selected silica aggregates, additives tested for the specific use which give to the product a very high adhesion and workability, polypropylene fibers.

FEATURES
An accurate and selective choice of the main materials made with a perfect grading curve, thanks to the use of our own crush system, produce just adding water a mortar very plastic and easily workable with an high compressive strength, no cracks, no detachment and impact resistant.
Fibers give to the hardened mortar more ductility and resistance to the aggressive agents and to the thermal excursions, improve the distribution of the stresses and reduce micro-cracks induced by external stresses, give more resistance to the vibrations, so is perfect for the restoration of structural concrete elements.

USE
For the recovery of damaged concrete (beams and pillars), for the concrete reinforcement (beams and pillars) reparation and restoration of damaged artifact or concrete floors and reinforced concrete.

APPLICATION
• Proceed to the removal from the surfaces to treat with INTORIS MC of the damaged concrete until you get to the concrete healthy also, removing any stains of release agents, acids, lime, dust, etc.
• Roughen the surface to be treated by chiseling to allow the application of INTORIS MC for a minimum thickness of 20 mm around the reinforcing bars to ensure a perfect adhesion to the substrate.
• Sandblast carefully the damaged reinforcing bars if not brush vigorously.
• Treat the iron with passivating grout type “INTOFER” or protective mortar type “MALTAFER”. It is recommended to perform the treatment even on concrete surfaces to be restored to realize a better adhesion with the following report of pourable antishrinkage mortar “INTORIS MC”.
• To apply INTORIS MC within and not more than 3 hours from the treatment of the damaged reinforcing bars.
• Moisten concrete with water at continuous jet until saturation before application.
• To mix INTORIS MC with a mixer at low speed or in a cement mixer, with the right quantity of water to obtain the desired density, with continuity, avoiding interruptions and excessive vibrations.
• Apply within 60 minutes from the preparation.
• Use formwork suitable for the containment of grouts.
• Start casting from one side only to facilitate the escape of air.
• To avoid the formation of air bubble during mixing and laying.
• The minimum thickness of finished product should not be lower than cm 1,5.
• The maximum thickness of the finished product should not be greater than 10 cm.
• For thicknesses higher than cm 5 to apply network welded in the middle of the new concrete cover, taking care to position it at 1 cm at least from the substrate and ensure a concrete cover of cm 2 at least.
• Protect and observe the precautionary rules to avoid a quick drying.
• To apply only on concrete or reinforced concrete substrates.
• Don’t apply on frozen substrates, with frost or possible frost in 24 hours.
• Don’t apply on substrate with a low mechanical strength.
• Don’t apply on gypsum substrates, synthetic coatings or paints.
• Don’t apply with strong wind or in very sunny day.
INTORIS MC

- Don’t apply with driving rain.
- Don’t add any other material to the product.
- We suggest to apply INTORIS MC with a temperature between + 10 °C and + 30 °C.
- Waiting time to remove the formwork hours at least 48/72 hours.

YIELD
For 1 m³ of mortar you need about kg 1.900 of INTORIS MC.

PACKAGING
Multi-ply paper sacks with protection of kg. 25 on wood pallets of 17,50 ql. (70 sacks).

TECHNICAL SPECIFICATIONS COMPLIANT WITH UNI EN 1504-3

<table>
<thead>
<tr>
<th>Water content of the mix</th>
<th>R4 ~15/17%</th>
<th>R3 ~15/17%</th>
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</thead>
<tbody>
<tr>
<td>Grading EN 1015-1</td>
<td>&lt;3mm</td>
<td>&lt;3mm</td>
</tr>
<tr>
<td>Specific weight ± 5%</td>
<td>1.900 Kg/m³</td>
<td>1.900 Kg/m³</td>
</tr>
<tr>
<td>Pot Life</td>
<td>1 hour</td>
<td>1 hour</td>
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<tr>
<td>Chlorides</td>
<td>&lt; 0.05%</td>
<td>&lt; 0.05%</td>
</tr>
<tr>
<td>Bending strength after 28 days EN 12190</td>
<td>&gt; 60 MPa (R4)</td>
<td>&gt; 40 MPa (R3)</td>
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<tr>
<td>Resistance to carbonation EN 13925</td>
<td>Pass</td>
<td>Pass</td>
</tr>
<tr>
<td>Modulus of elasticity EN 13412</td>
<td>&gt; 20 GPa</td>
<td>&gt; 20 GPa</td>
</tr>
<tr>
<td>Adhesion strength EN 1542</td>
<td>&gt; 2.0 MPa</td>
<td>&gt; 2.0 MPa</td>
</tr>
</tbody>
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Thermal compatibility:
- freeze/thaw EN 13687-1 | > 2.0 MPa | > 2.0 MPa |
- storms EN 13687-2      | > 2.0 MPa | > 2.0 MPa |
- dry cycles EN 13687-4   | > 2.0 MPa | > 2.0 MPa |
Water abs. due to capillary action EN 13057 ≤ 0,5 Kg/(m²•min⁰.5) ≤ 0,5 Kg/(m²•min⁰.5)
Reaction to fire EN13501-1 Class “A1” Class “A1”
Toxicity - Regulation CE 1272/08 Danger Danger
Classification EN 1504-3* CC-R4/DOP 20* CC-R3/DOP 21*

* at guaranteed performance (2+)

SUMMARY
The restoration and the reinforcement of the reinforced concrete deteriorated will be done with a fiber reinforced with a special composition of polypropylene fibers pourable anti shrinkage mortar expansive at high mechanical strength made of special cements resistant to sulphates, type “INTORIS MC” compliant with EN 1504-3 class R3-CC or R4-CC by MALVIN S.r.l., to apply by hand and to mix just adding water, with a compressive strength after 28 days class R3 or R4.

The performance characteristics refer to laboratory tests, values depend on the weather conditions and on the methods of implementations. The operator must verify the suitability of the product depending on the use planned.