## MODIFIED GENERAL APPLICATION CONCRETE REPAIRING MORTAR

## **DESCRIPTION**

PENETRON® MULTI PATCH is a one-component, polymer modified, concrete based, fiber reinforced, non-shrink, repairing mortar, for low cost general concrete repairing and restoration applications. When mixed with water produces an excellent workability and thixotropic behavior. It can be applied on vertical and horizontal surfaces, without sagging, and skim coat repairs, with no need of formwork.

# **RECOMMENDED FOR**

- ▶ Interior or exterior surfaces
- Concrete repairs beneath the slab or structural components
- ▶ Balconies, etc
- Architectural details and finishing
- ▶ Pre casted concrete slabs

- Masonry
- ▶ Bridge-decks, tunnels
- Surface repairing and smoothing (spalled and honeycombed areas, tie holes and faulty construction joints)

## **ADVANTAGES**

- ▶ Polymer modified, one-component mortar
- ▶ Low cost application. No formwork is required
- No shrinkage
- ▶ High durability and mechanical strength.
- ▶ Excellent thixotropic behavior
- ▶ Excellent bonding with structural material, i.e. concrete, masonry, stone, etc.
- ▶ Applicable by trowel, metallic spatula or shotcrete machine.

### **TECHNICAL DATA**

| Characteristic       | Test Result                   |                 | Test Method  |
|----------------------|-------------------------------|-----------------|--------------|
| Composition          | Cement based repairing mortar |                 |              |
| Color                | Grey and white                |                 |              |
| Compressive strength | 7 days                        | 28 days         | - EN 12190   |
|                      | 4,600 psi (31.5 MPa)          | 6,700 (46 MPa)  |              |
| Tensile strength     | 7 days                        | 28 days         | EN 1055 - 11 |
|                      | -                             | 1,090 (7.5 MPa) |              |
| Bonding              | > 2 N/mm <sup>2</sup>         |                 |              |
| Repair thickness     | 1/5" – 8/5" (5 – 40 mm)       |                 |              |

All data are average values obtained under laboratory conditions. Impractical use, temperature, humidity and absorption of the substrate may influence the above given values.

#### **DIRECTIONS FOR USE**

**Surface Preparation:** Careful surface preparation is essential for excellent bonding and repair. Surfaces to be treated must be clean and sound, free of dirt and any other contaminant that will act as a bond breaker of









#### MODIFIED GENERAL APPLICATION CONCRETE REPAIRING MORTAR

PENETRON<sup>®</sup> MULTI PATCH. For optimum result, surfaces must be treated with appropriate means, until the sound surface is exposed ensuring optimum bonding of the mortar. Surfaces must be saturated with water, without any standing or puddled water (in case of no use of a bonding agent). If needed, apply a bonding agent, i.e. PENETRON<sup>®</sup> ACRYLIC BONDCRETE<sup>TM</sup> (roller, brush or spray), to enhance bonding properties, before PENETRON<sup>®</sup> MULTI PATCH application. In case of non-porous substrates apply PRIMER STX 100™.

**NOTE:** After the application of PENETRON<sup>®</sup> ACRYLIC BONDCRETE<sup>TM</sup> wait at least 40 minutes, until the surface is touch dry (not "tacky") before PENETRON<sup>®</sup> MULTI PATCH is applied. PENETRON<sup>®</sup> ACRYLIC BONDCRETE <sup>TM</sup> retains its excellent bonding properties for up to 2 weeks, if kept clean and dry. For reinforcing steel, apply a slurry coat of PENETRON<sup>®</sup> V/O PATCH, after wetting the concrete surface. When still damp, PENETRON<sup>®</sup> V/O PATCH also protects the embedded steel against corrosion effects.

**Mixing:** PENETRON<sup>®</sup> MULTI PATCH requires 6.8 to 8.2 lb (3.1 to 3.7 kg) clean water per bag [or 55 lb (25 kg) mortar].

**Application:** Moisten the surface to a dull dampness or apply bonding enhancers as mentioned above.

Pour the required quantity of clean water into the mixing pail and then add the equivalent quantity of PENETRON MULTI PATCH, while mixing thoroughly. Mix thoroughly for 2-3 minutes, until a uniform mixture is formed and apply the fresh mortar on the repairing surface, immediately after mixing, using a trowel or a metallic spatula, holding the PENETRON MULTI PATCH steadily on the surface to achieve better bonding with the substrate. Add excessive quantity of

PENETRON<sup>®</sup> MULTI PATCH on the surface, after the first layer, using a trowel or a metallic spatula, and squeeze the mortar from the center to the edges of the repairing surface, for a better finishing.

Wide repairing areas can be filled with multi-layer fillings.

**Curing:** Protect PENETRON<sup>®</sup> MULTI PATCH against conditions that can cause rapid dehydration of the applied mortar (high temperatures, wind, low moist, direct sunlight), using a soaked rag or plastic cover for up to 24 hours. Wet curing material can also be applied.

**NOTE:** Small quantities of PENETRON<sup>®</sup> MULTI PATCH can be mixed, using a spatula or mixing paddle  $\frac{1}{2}$ " (400 – 600 rpm).

Do not exceed the indicated quantity of water and do not add extra quantity of water after mixing. Limit to the indicated mixing time and do not re-stir the mortar. Clean the mixing pail thoroughly after every mix, so as to avoid dried residues in the next mix.

For sufficient workability, mixing of up to ½ the bag, is advised.

### **SPECIAL CONSIDERATIONS**

DO NOT bridge control joints and expansion joint. Protect the mixture from early dehydration.

Avoid wind, sunlight, and heat. Low temperature may prolong curing time.

Total applied coat must be at least 1/5" (5 mm) in thinckness.

DO NOT exceed working time, do not add more water than required and do not use admixtures.

Use appropriate methods for surface preparation (concrete or masonry).

PENETRON® MULTI PATCH is not a finishing material.

Use water to clean your tools after use.

Contact PENETRON ROMANIA for additional information regarding your project.

#### **PACKAGING**

PENETRON® MULTI PATCH is available in 55 lb (25 kg) bags.

# STORAGE / SHELF LIFE

Storage life is 12 months, when stores appropriate, in a protected area, in the sealed corporate packaging in a dry and cool place. Storage Temperature: 5-30  $^{\circ}$ C.

## SAFE HANDLING INFORMATION

Contains cement, which is alkaline. Will irritate eyes and skin and may cause skin sensitization. Wear appropriate eye, skin and breathing protection when using this product. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. For further information please refer to Material Safety Data Sheet. KEEP OUT OF REACH OF CHILDREN.

# PRODUCT DATA SHEET

#### MODIFIED GENERAL APPLICATION CONCRETE REPAIRING MORTAR

#### **WARRANTY - DISCLAIMER**

PENETRON ROMANIA warrants that its products are manufactured under certified ISO Standard procedures, are of excellent quality and shall be free from material defects and contain all components in their proper proportion. Should any of the products be proven defective, the liability to PENETRON ROMANIA shall be limited to replacement of the material proven to be defective, since the standard application procedures have been met and the suitability of the product for the particular application have been proven. PENETRON ROMANIA makes no warranty as to merchantability of fitness for a particular purpose. User, after contacting the distributor of the product, shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith. While every care has been taken, the information provided in this product's data sheet make no part of any contract. All recommendations, technical data and test data contained in this product's data sheet are based upon the results of control laboratory tests or in actual field tests. However, PENETRON ROMANIA makes no warranty of any kind, concerning this data. In any case, this data are given in good faith based in the PENETRON ROMANIA experience, till the publication of this sheet. Due to variance in storage, handling and applications of the materials, PENETRON ROMANIA accepts no liability for the results obtained. It is suggested that potential users try small applications to determine the suitability of each individual product for their specific requirements. The users should always refer to the most recent edition of the product's data sheet. PENETRON ROMANIA may particularly differentiate its versions of the product's data sheet compared with those of PENETRON ROMANIA or respective PENETRON companies worldwide. These changes are due to text

formatting, different application weathering and procedures or different product names and aim at the optimal consumer information.

PENETRON ROMANIA GR 13679, Acharnes 16 No. 12.021-094D201116-EN 1504-3:2004 MODIFIED GENERAL APPLICATION CONCRETE REPAIRING MORTAR PENETRON® MULTI PATCH R4 (≥45 MPa) Compressive strength Chloride content ≤0.05% by mass Adhesive bond ≥2 MPa Durability of bonding after Restrained shrinkage/expansion testing ≥2,0 MPa Carbonation resistance No corrosive effect

Penetron Romania
Departament tehnic
Tel: 0742 454 382/ 0368734003
office@penetron-romania.eu
Adresa: Complex Duplex 2
www.penetron-romania.eu