

## Conpatch® 600

ONE PART POLYMER MODIFIED FINE CONCRETE STRUCTURAL REPAIR MORTAR

### DESCRIPTION

A ready to use economical one component polymer modified repair mortar containing fibres and silica fume. **Conpatch 600** contains specially selected materials to provide a fine, smooth repair material. Complies with class R4 of EN 1504-3.

### USES & ADVANTAGES

**Conpatch 600** is a fine, ready to use repair mortar for repairing concrete surfaces including small honey-combs, surface defects, blowholes and minor damage. It can also be used to repair corrosive damage to concrete surfaces.

**Conpatch 600** is suitable for structural repairs in buildings, marine structures, bridges and other infrastructure. It is suitable for structural strengthening and preserving/restoring passivity according to EN 1504-9 principle 3, 4 and 7.

#### Advantages include:-

- Structural repair mortar.
- Easy to apply. Excellent workability.
- Non shrink. Non toxic. Non corrosive.
- Water & weatherproof.
- Reduces carbonation significantly.
- Excellent adhesion and mechanical strengths.
- Contains no chlorides or salts that may cause corrosion.
- Gives better control than two part systems.
- Provides cost saving over two part systems.
- Good colour matching to concrete.
- Non sagging.
- Good resistance to chlorides & sulphates.
- Contains fibres to reduce micro cracking and improve durability.
- Complies with class R4 of EN 1504-3 repair mortar.

### PROPERTIES AND COMPLIANCE

<b>Appearance:</b>	Grey powder
<b>Compressive Strength:</b>	55 - 65 N/mm <sup>2</sup>
ASTM C109	after 28 days at 25°C
<b>Flexural Strength:</b>	12 - 15 N/mm <sup>2</sup>
ASTM C348	after 28 days at 25°C
<b>Bond Strength to Concrete:</b>	2.5 - 3 N/mm <sup>2</sup>
ASTM D4541	after 28 days at 25°C
<b>Drying Shrinkage:</b>	<400 micro strain at 7 days
ASTM C490	<560 micron strain at 28 days
<b>Coefficient of Thermal Expansion:</b>	11 x 10 <sup>-6</sup> /°C
<b>Water Absorption ISAT:</b>	10 mms < 0.007 ml/m <sup>2</sup> /sec
<b>BS 1881 Part 5:</b>	2 hours < 0.0045 ml/m <sup>2</sup> /sec

*Note: Properties depend on water content and are typical under laboratory conditions.*

### SUBSTRATE PREPARATION

The substrate should be clean & sound. Remove dirt, dust, oil, grease, laitance, sealers, release agents, curing compounds & paints.

Exposed rebar should be cleaned & protected with **Congard Zinc**.

The concrete should be presaturated for preferably 6 hours with water before application.

### PRIMING

Priming is not normally required. Surfaces to receive **Conpatch 600** should be well saturated with water first.

### MIXING

**Conpatch 600** is simply mixed with water to yield a stiff easily workable compound with shrinkage compensating properties.

The quantity of water depends on the desired consistency but as a guide we recommend 16-18% by weight of **Conpatch 600**.

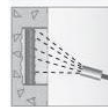
Mix with a paddle mixer or trowel for at least 3 minutes to ensure a homogenous lump free material is achieved.

Do not try to remix the product after losing workability by the addition of more water.

#### Typical Procedure for Concrete Repair Using Conpatch Repair Mortars



Remove damaged concrete and prepare exposed steel reinforcement.



Thoroughly clean area of repair using high pressure water jet to remove all loose debris and contamination. Fingers should be able to be fitted behind rebar.



Mix and apply **Congard Zinc** to rebar allow to dry. Apply **Cormix Latex** bonding bridge if required. Apply repair material WET ON WET to bonding bridge.



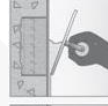
Replace damaged concrete using **Conpatch 600** one component polymer modified mortar, build up in layers if necessary.



Once set firm, the repair and surrounding area coat with **Corcure 90** or **Corcure 75** curing compound.



Remove any remaining **Corcure 90** from treated area if to overcoat.



Any further leveling may be achieved with fairing material. A final coat of **Elastoclad** decorative elastomeric, anti-carbonation coating will prevent the ingress of water chlorides and other aggressive influences, effectively halting the carbonation process. **Elastoclad** is water vapour permeable, allowing the substrate to breathe, and has excellent elasticity, bridging dynamically moving cracks even at low temperatures.

**Conpatch® 600**

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**METHOD OF USE**

Apply **Conpatch 600** with a trowel, spatula, float or by spray. By hand press hard. Work up to 20 mm. in one layer. Thicker repairs may be achieved by working in layers.

**CURING**

To prevent rapid surface drying and crazing, use a suitable curing compound from Cormix's **Corcure** range e.g. **Corcure 90**.

**CUNSUMPTION**

Approx. 2 kg/m<sup>2</sup>/mm.

**PACKAGING**

20 kg. 4 ply plastic lined bags.

**STORAGE & SHELF LIFE**

**Conpatch 600** has a shelf-life of up to 12 months unopened packs kept in a dry store. If high humidity is apparent the life may be reduced to 6-8 months.

**HEALTH & SAFETY**

**Conpatch 600** is non-toxic but is alkaline in its nature. When applying gloves & goggles should be worn. Wash off splashes to skin with water. If in eyes wash out with plenty of clean water and seek medical attention. **Conpatch 600** is non-flammable.

**TECHNICAL SERVICE**

The Cormix International Technical Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

**QUALITY ASSURANCE**

ISO 9001: 2008 verified by TUV Nord.



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**EN 1504-3 (R4)**  
**Structural and non-  
structural repair**

Compressive Strength:	≥ 45 MPa
Chloride ion Content:	≤ 0.05 %
Adhesive bond:	≥ 2.0 MPa
Resistance Shrinkage:	≥ 2.0 MPa
Carbonation Resistance:	dk ≤ control Concrete
Elastic modulus:	≥ 20 GPa
Capillary Absorption:	≤ 0.5 kg/m <sup>2</sup> /h <sup>0.5</sup>

**CONTACT DETAILS**

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