

# Conpatch® Marine

## HIGH EARLY STRENGTH REPAIR MORTAR FOR MARINE APPLICATIONS

### DESCRIPTION

**Conpatch Marine** mortar is a structural repair mortar for use in marine and tidal areas subjected to early immersion.

Complies to EN1504 Part 9 and EN1504 Part 3.

- Principle 3 : Concrete Restoration (CR).  
Method 3.3 - Spraying concrete or mortar.
- Principle 7 : Preserving or restoring passivity (RP).  
Method 7.1 - Increasing cover to reinforcement with additional concrete or mortar.  
Method 7.2 - Replacing contaminated or carbonated concrete.

### USES & ADVANTAGES

Use to achieve rapid repairs in areas subject to early water immersion. Ideal for repairing marine structures.

#### Advantages include:-

- Contains high alumina cement.
- Very rapid strength gain.
- Compatible to substrate.
- One part easy to mix & apply.
- Very dense with low shrinkage to reduce the incidence of chloride or moisture ingress.
- Excellent resistance to wash out.
- Non toxic, non hazardous to marine environment,
- Thixotropic allowing for 30 mm+ build on vertical surfaces.
- Provides concrete corrosion protection.

### PROPERTIES

<b>Appearance:</b>	Grey Powder
<b>Wet Density:</b>	Approx 2,100 kg/m <sup>3</sup>
<b>Bond Strength to Concrete:</b>	> 2.5N/mm <sup>2</sup>
ASTM D4541	at 28 days (Concrete failure)
<b>Drying Shrinkage:</b>	< 500 micron
ASTM C490	at 28 days
<b>Pot Life :</b>	5-10 minutes when applied in mortar consistency.

#### Compressive Strength at 30°C ASTM C109

<u>Compressive Strength</u>	<u>Typical Results</u>
2 hours	> 25 N/mm <sup>2</sup>
4 hours	> 35 N/mm <sup>2</sup>
8 hours	> 40 N/mm <sup>2</sup>
24 hours	> 50 N/mm <sup>2</sup>
28 days	> 70 N/mm <sup>2</sup>

**Water Content:** 10 %

*Note: These are typical figures results may vary depending on water content used, mixing time, and ambient temperature.*

### SUBSTRATE PREPARATION

Surfaces should be saturated clean, sound and free from oil, grease, laitance and loose particles. Metal surfaces should also be clean & free from rust, oil & grease.

### MIXING AND WATER CONTENT

**Conpatch Marine** should be mixed using a suitable mixer. Use a slow speed < 400 rpm hand drill and paddle. For large works use a high shear vane grout mixer. Drum mixers may not mix sufficiently.

Water contents will vary according to consistency required use 2.5-2.7 litres of clean water for patch repairing, 2.9-3.1 litres for pourable consistency and 3.3 to 3.5 ltr for fluid consistency.

Add slowly to the water (add the total bag). Mix continuously for 3 minutes ensuring a smooth even consistency is obtained.

### APPLICATION

Ensure the substrate is correctly prepared, no contamination and saturated with potable water prior to placing. No free water should be left standing. Place within 5-10 minutes of mixing.

### CURING

To prevent rapid surface drying and crazing, use a suitable curing compound from Cormix's Corcure range. e.g. **Corcure 90**. At temperatures below 20°C early strength gain maybe affected.

### IMPORTANT NOTES

- Minimum applied thickness of **Conpatch Marine** is 10 mm.
- At temperatures above 35°C cooling of water with ice will make handling & placement easier. Mixers & tools should be kept shaded.
- Place as soon as mixed.

### CONSUMPTION

For patch repairing of concrete: approx. 75 bags of 25 kg/m<sup>3</sup> by using 10% of water.

For fluid consistency: approx. 72-74 bags of 25 kg/m<sup>3</sup> by using 294 litres of water.

For pourable consistency: approx. 74-77 bags of 25 kg/m<sup>3</sup> by using 243.6 litres of water.

### CLEANING

Clean all tools with water immediately after use.

### PACKAGING

25 kg. 4 Ply plastic lined bags.

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### STORAGE CONDITIONS & SHELF LIFE

Store in dry shaded conditions. The shelf life is 6 months if kept dry in original packaging. High temperatures and humidity may reduce shelf life.

### HEALTH & SAFETY

During use avoid inhalation of dust & contact with skin & eyes. Wear protective clothing. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately

- **do NOT** induce vomiting.

### 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 : 2015 verified by TUV Nord.

ISO 14001 : 2015 verified by Lloyd's Register International.

### DISCLAIMER

Performance data is achieved testing in accordance with International Standards. Testing by others may result in different results from those published as a result of external factors such as poor sampling, incorrect mixing, varying temperatures, curing, crushing procedures etc.

Cormix does not take responsibility nor need to defend others testing that does not achieve the published data.

The user must test the products suitability for the intended application and purpose. Cormix reserves the right to change the properties of the product.

Site conditions and differences in materials are such that no warranty or fitness for a particular purpose, nor liability can be inferred from the published data sheet, written recommendations or from other advise offered.

### CONTACT DETAILS

#### Cormix International Limited

89 Romklao Rd., Sansab, Minburi, Bangkok 10510

Tel. (66 2) 917 3955-8, 117 3396

Fax. (66 2) 917 3959

<http://www.cormix.com>

E-mail : [info@cormix.com](mailto:info@cormix.com)