

Epoxy

**EPICHOR**   
Epoxy For Crack Injection



**General Properties:**

- **EPICHOR** is two component solvent free clear epoxy product.
- Low viscosity for optimum penetration.
- Low molecular weight & long pot life, Thus it suitable for injection works.

**Uses:**

- For crack injection - For electrical encapsulation - For bonding new to old concrete.

**Application:**

١. Clean the crack and remove foreign materials, grease should be removed chemically or mechanically.
٢. Widen the crack and remove any weak or separated layers.
٣. Wear gloves & eye goggles before working & be sure of good ventilation.
٤. Fix injection nipples all along the crack.
٥. Seal the crack from outside between each nipples using epoxy mortar. e.g. **EPICHOR**
٦. Add the resin to hardener in a suitable container and mix well.
٧. Inject the mixed resin and hardener through the injection nipples beginning from the lowest nipple. Keep injecting until the epoxy comes out from the highest nipple. This ensures that the crack is completely filled with epoxy.
٨. Application must be within ١٢٠ min. from mixing time.
٩. Second day, remove the nipples & seal the holes with Epoxy mortar e.g. **EPICHOR**.
١٠. Clean tools using solvent ex.: Thinner.

**Technical Data:**

**ASTM (C- ٥٨٠ method A) Flexural test**

Flexural strength (After ٢٠ days )	٣٣ N/mm <sup>٢</sup>
Modulus of Elasticity (After ٢٠ days)	٢٣٠٠ N/mm <sup>٢</sup>

**BS-EN ١٨٨١-٢.٠.٦ Pullout test**

- For pure epoxy ( Resin + Hardener )

Bond strength	٣.٧ N / mm <sup>٢</sup>	Failure happened by pull out of steel bar
<ul style="list-style-type: none"> <li>▪ For rod ( Ø = ٨mm, Imbedded length = ٤٥mm ) Failure load = ٠.٤ ton</li> <li>▪ Tests were carried after ١٥ days from casting date.</li> <li>▪ Diameter of cylinder = ٦٠mm</li> </ul>		

- For Mortar epoxy ( Resin + Hardener + filling ) fixing dowels in concrete

Bond strength	١١.٠ N / mm <sup>٢</sup>	Failure happened by yield of steel bar before pull out
<ul style="list-style-type: none"> <li>For rod ( Ø = ١١mm, Imbedded length = ٩٠ mm ) Failure load = ٣ ton</li> <li>Tests were carried after ١١ days from casting date.</li> <li>Concrete compressive strength ٣١.٤ N /mm<sup>٢</sup></li> </ul>		

Bond between steel and concrete is achieved by **Epichor** mixed with graded special sand by thickness about ٣mm around steel bar.

**Compressive strength** : ٧٠ N/mm<sup>٢</sup> (After ١٥ days) ASTM (C ٥٧٩ Method B)

**Initial Curing Time** : After ٢٤ hours of mixing

**Final Curing Time** : After ٧ days at ambient temperature

**Pot Life** : ١٢٠ min. at ٢٤°C

**Chemical Resistance** : Excellent to Good resistance against water, alkalis and detergents.

Moderate against acids, poor against organic solvents.

**Shelf Life** : ١٨ months in closed container and away from sunlight, heat and humidity.

**Environment:**

- Boots, rubber gloves, dust masks, and safety goggles
- Refer to MATERIAL SAFETY DATA SHEETS (MSDS)

**For more information please contact our technical department**

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