

# CHEMFIT RM 700 EP

## Epoxy Repair Mortar (3-Part) – For Heavy-Duty Repairs & Industrial Floors

### PRODUCT DESCRIPTION

**ChemFit RM700 EP** is a high-performance, 3-part epoxy repair mortar (resin + hardener + selected filler) designed for heavy-duty repairs on concrete floors, industrial pavements, and load-bearing surfaces. The solvent-free, 100% solids system provides exceptional compressive strength, chemical resistance, and impact tolerance. Ideal for repairing spalls, cracks, joints, and deteriorated areas subject to heavy traffic, forklifts, and chemical exposure.

### PRIMARY APPLICATIONS

**ChemFit RM700 EP** is recommended for use in conditions such as:

- Heavy-duty industrial floor repairs (warehouses, factories, loading bays)
- Spall and crack repair in high-traffic areas
- Joint filling and resurfacing of damaged concrete
- Structural repair of floors, ramps, and bridge decks
- Chemical plant floors, food processing areas
- Machine base plates and anchor bolt grouting

### KEY FEATURES AND BENEFITS

- **3-part epoxy system** – High strength, zero shrinkage
- **Heavy-duty performance** – Withstands forklifts, steel wheels, impact
- **Chemical resistant** – Oils, fuels, dilute acids, alkalis, solvents
- **Excellent bond** – Adheres to concrete, steel, and old epoxy
- **Fast curing** – Quick return to service (traffic in 24-48 hours)
- **Solvent free** – No VOCs, safe indoor use
- **Good flow / trowelable** – Self-leveling or non-sag as mixed

## PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Appearance	3-part: resin (liquid), hardener (liquid), filler (powder)
Color (mixed)	Gray
Solvent Content	Nil (100% solids)
Mix Ratio	As per kit (refer to label)
Pot Life (25°C)	20 – 40 minutes (depends on mass)
Initial Cure	6 – 12 hours
Full Cure	7 days
Application Temp	+10°C to +35°C
Density (mixed)	Approx 1,900 – 2,100 kg/m <sup>3</sup>

## MECHANICAL PROPERTIES

Property	Value
Compressive Strength	80 – 100 MPa (11,600 – 14,500 psi)
Flexural Strength	30 – 40 MPa (4,350 – 5,800 psi)
Tensile Strength	15 – 25 MPa (2,180 – 3,600 psi)
Bond Strength (concrete)	> Concrete substrate failure
Shore D Hardness	80 – 85

## PACKAGING AND STORAGE

### Packaging:

- 10 kg kits
- 20 kg kits
- 30 kg kits  
(pre-proportioned resin + hardener + filler)

### Storage:

- Store resin & hardener at +10°C to +30°C in original sealed containers
- Keep filler dry
- Protect from direct sunlight, moisture, freezing

**Shelf life:** 24 months (unopened, proper storage)

## DOSAGE AND COVERAGE RATES

**Yield:** approximately 0.5 – 0.55 m<sup>2</sup> per 10 kg kit at 10 mm thickness

**Coverage** (10 mm thick):

- 10 kg kit → approx 0.5 – 0.55 m<sup>2</sup>
- 20 kg kit → approx 1.0 – 1.1 m<sup>2</sup>
- 30 kg kit → approx 1.5 – 1.65 m<sup>2</sup>

**Density of cured mortar:** ~2,000 kg/m<sup>3</sup>

## APPLICATION GUIDELINES

**Surface Prep:**

- Substrate: clean, sound, dry, free from dust/oil/grease/laitance
- Mechanically abrade (grinding, shot blasting) to open texture
- Remove all loose or deteriorated concrete; cut square edges
- For steel: sandblast or wire brush to near-white metal

**Mixing:**

- Pre-mix resin component individually; then add hardener
- Mix thoroughly for 2-3 minutes using low-speed drill (400-600 rpm)
- Slowly add filler while mixing until uniform, lump-free paste
- Use entire batch within pot life (20-40 min @25°C)

**Application:**

- Pour or trowel onto prepared surface
- For self-leveling applications, pour and spread with notched trowel or gauge rake
- For vertical/overhead, use thixotropic version (if available) or apply in thin layers
- For deep repairs (>25 mm), apply in multiple lifts
- Remove air entrapment by spiking or rolling

**Curing:**

- Protect from water, chemicals, and heavy loads for 24 hours
- Light foot traffic after 24 hours; heavy wheeled traffic after 48-72 hours
- Full chemical resistance after 7 days
- Do not apply below +10°C or when temperature is falling

## HEALTH AND SAFETY

Epoxy resins and hardeners may cause skin and eye sensitization. If eye contact: rinse with water 15 min, seek medical aid. Skin: wash with soap and water. If swallowed: do not induce vomiting, seek medical aid. Use nitrile gloves, safety glasses, protective clothing. Ensure ventilation. Refer SDS.

## CLEANG OF TOOLS

Clean tools with acetone, xylene, or epoxy thinner immediately after use. Cured epoxy requires mechanical removal.

## APPROVALS AND STANDARDS

**ChemFit RM700 EP** conforms to the following standards:

- **ASTM C881 / C881M** – Type III / IV (Epoxy resin bonding systems for concrete)
- **EN 1504-3** – Structural and non-structural repair (Class R4)
- Suitable for heavy-duty repairs, industrial floors, and load-bearing applications
- Chloride free – safe for reinforced concrete

## LEGAL NOTES

*All technical data provided in this Product Data Sheet is based on laboratory testing under controlled conditions. Actual field performance may vary due to differences in substrates, application methods, site conditions, and environmental factors. ChemFit makes no warranty of merchantability or fitness for a particular purpose. Users shall conduct their own trials to validate product suitability for the intended application. ChemFit reserves the right to modify product specifications without prior notice. For the most current documentation, request the latest Product Data Sheet and Safety Data Sheet from ChemFit.*

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