

# CHEMFIT CCURE 90

## Resin-Based Curing Compound – For Structural Concrete

### PRODUCT DESCRIPTION

**ChemFit CCure 90** is a high-performance, resin-based curing compound specifically formulated for structural concrete applications. This advanced curing compound forms a tough, durable, continuous membrane over freshly placed concrete surfaces, providing superior moisture retention for complete cement hydration. The resin-based formulation offers excellent adhesion, durability, and water retention properties, making it ideal for structural elements where proper curing is critical for achieving design strength, durability, and long-term performance. It is specifically designed for use on vertical and horizontal structural concrete surfaces.

This product conforms to industry standards for concrete curing compounds and is suitable for use on all types of structural concrete elements.

### PRIMARY APPLICATIONS

**ChemFit CCure 90** is recommended for use in conditions such as:

- Structural concrete elements (beams, columns, slabs, walls)
- Bridge decks, piers, and abutments
- High-rise building structural components
- Parking structures and ramps
- Industrial floors and heavy-duty slabs
- Foundations and footings for heavy loads
- Water retaining structures (tanks, reservoirs)
- Marine structures and coastal infrastructure
- Precast and prestressed concrete elements
- Concrete repair and strengthening projects
- Infrastructure projects (tunnels, dams, canals)
- Any structural concrete requiring superior curing

## KEY FEATURES AND BENEFITS

- **Resin-based formulation** – Provides superior moisture retention and film durability
- **Excellent water retention** – Retains over 95% of mixing water for complete hydration
- **Tough, durable membrane** – Resists damage from light foot traffic and construction activities
- **Promotes full strength development** – Ensures structural concrete achieves design strength
- **Enhances durability** – Improves surface hardness, abrasion resistance, and long-term performance
- **Reduces cracking** – Minimizes plastic shrinkage, drying shrinkage, and thermal cracking
- **Superior adhesion** – Bonds well to vertical and overhead concrete surfaces
- **Excellent coverage** – Approximately 5 m<sup>2</sup> per liter of product
- **Fast drying** – Forms a continuous membrane within minutes of application
- **Compatible with all concrete** – Works with all cement types and structural mix designs
- **One-coat application** – Single application provides adequate curing protection
- **Suitable for vertical surfaces** – Formulated to resist sagging and runoff on vertical formwork

## PHYSICAL AND CHEMICAL PROPERTIES

Property	Specification
Appearance	Liquid
Color	Clear to light amber
Form	Ready-to-use liquid
Specific Gravity	0.88 – 0.95 at 25°C
Viscosity	Medium (good vertical hold)
Solids Content	18 – 25% (typical)
Flash Point	> 65°C
VOC Content	Moderate
Freezing Point	< 0°C
Drying Time	20 – 40 minutes (depending on conditions)
Water Retention	> 95% (ASTM C156)
Membrane Color	Clear to translucent
Adhesion to Concrete	Excellent
Vertical Sag Resistance	Good (formulated for vertical applications)
UV Resistance	Good (for curing period and beyond)
Application Temperature	+5°C to +50°C

## PACKAGING AND STORAGE

### Packaging:

- 20 L pails / drums
- 200 L drums

### Storage:

- Store in original sealed containers at +5°C to +35°C
- Protect from direct sunlight, extreme heat, and open flames
- Keep container tightly closed when not in use
- Store away from oxidizing agents and strong acids
- Do not store near food or drinking water

**Shelf life:** 12 months from date of manufacture when stored properly

## DOSAGE AND COVERAGE RATES

The recommended coverage of **ChemFit CCure 90** is approximately 5 square meters per liter of product.

**Standard coverage (5 m<sup>2</sup>/L):** Provides adequate curing protection for structural concrete applications

**Higher coverage (above 5.5 m<sup>2</sup>/L):** Not recommended as film thickness may be insufficient for adequate water retention

**Lower coverage (4 – 4.5 m<sup>2</sup>/L):** Provides additional curing protection for critical structural elements or extreme conditions

### Coverage per container:

- Per 20 L pail: Covers approximately 100 m<sup>2</sup> of concrete surface
- Per 200 L drum: Covers approximately 1,000 m<sup>2</sup> of concrete surface

Example coverage for structural projects:

Project Type	Area	Required Product
Residential columns & beams	50 m <sup>2</sup>	10 liters (1/2 pail)
Commercial slab (500 m <sup>2</sup> )	500 m <sup>2</sup>	100 liters (5 pails or 1/2 drum)
Bridge deck (1,000 m <sup>2</sup> )	1,000 m <sup>2</sup>	200 liters (1 drum)
High-rise floor plate (2,000 m <sup>2</sup> )	2,000 m <sup>2</sup>	400 liters (2 drums)
Water tank (interior + exterior)	300 m <sup>2</sup>	60 liters (3 pails)

**NOTE: Coverage rates are approximate and may vary depending on surface texture, porosity, application method, formwork type, and environmental conditions. For rough formwork finishes or textured surfaces, higher application rates (lower coverage) may be required. For smooth steel or plastic formwork finishes, standard coverage is typically sufficient. For critical structural elements requiring enhanced protection, consider applying at 4 – 4.5 m<sup>2</sup>/L.**

## APPLICATION GUIDELINES

**ChemFit CCure 90** should be applied to freshly placed concrete as soon as the surface is free of standing water and bleed water has evaporated. For best results, apply the curing compound immediately after formwork removal or final finishing is complete, typically when the concrete surface has a uniform appearance. Do not apply to wet or ponded surfaces as the curing compound will not adhere properly. For vertical structural elements (columns, walls), allow the surface to be touch-dry before application to prevent runoff. The product can be applied by low-pressure spray (hand-held sprayer), airless sprayer, roller, or brush. Spray application is recommended for large areas to achieve uniform, even coverage. For vertical surfaces, spray application with a fine nozzle produces the most uniform results and minimizes runoff. Apply at the recommended coverage rate of approximately 5 m<sup>2</sup>/L to achieve a continuous, uniform film. Apply in a single coat – one uniform application is sufficient for most structural applications. Do not thin or dilute the product as this will reduce film thickness and water retention performance. For best results, apply in a systematic pattern to ensure complete coverage without gaps or overlaps. On vertical surfaces, apply from bottom to top to ensure complete coverage. The curing compound will dry to form a tough, continuous film within 20-40 minutes depending on temperature, humidity, and surface conditions. Protect the curing film from heavy foot traffic, equipment, or other damage during the curing period. The curing film will naturally wear away over time (typically 14-60 days depending on exposure). For structural concrete requiring subsequent surface treatments (paint, coatings, bonding agents), remove the curing film by mechanical abrasion (sandblasting, wire brushing) or chemical means. Do not apply to frozen surfaces or when temperatures are expected to drop below freezing within 24 hours of application. For critical structural elements with high strength requirements, maintain the curing film for a minimum of 7 days (14 days for high-performance concrete). For hot weather applications, apply immediately after finishing to prevent rapid moisture evaporation. For cold weather applications, ensure concrete temperature is above 5°C before application.

## HEALTH AND SAFETY

**ChemFit CCure 90** may cause mild to moderate eye and skin irritation. If eye contact occurs, rinse thoroughly with water for 15 minutes and seek medical advice if irritation persists. For skin contact, wash with soap and water. If swallowed, do not induce vomiting; instead rinse the mouth and drink water, then seek medical advice. Use gloves, safety glasses, and protective clothing during handling. Avoid prolonged or repeated skin contact. Ensure adequate ventilation when using in enclosed spaces. Do not smoke or use near open flames. Store away from oxidizing agents. Refer to the Safety Data Sheet for detailed information.

## CLEANG OF TOOLS

Clean all spray equipment, rollers, and containers with mineral spirits, paint thinner, or suitable solvent immediately after use. Do not allow the product to dry on equipment as removal will be difficult. Dispose of cleaning materials in accordance with local regulations. Do not discharge into drains or watercourses.

## APPROVALS AND STANDARDS

**ChemFit CCure 90** conforms to the following standards:

- Resin-based curing compound for structural concrete surfaces
- Suitable for use on beams, columns, slabs, walls, bridges, and structural elements
- Meets industry requirements for water retention and film formation on vertical and horizontal surfaces
- Provides superior curing protection for structural concrete hydration

## 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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