



CHEM-JOINT 35

Two Component Epoxy Joint Sealant

PRODUCT DESCRIPTION

Chem-Joint 35 is a two-component, solvent free 100% solid, ready-to-use epoxy joint sealant system.

FIELDS OF APPLICATION

Chem-Joint 35 is mainly used for sealing control joints, construction joints in industrial floors. **Chem-Joint 35** is an epoxy based joint sealant suitable for control/construction joints through epoxy floor coatings, epoxy overlays such as self-leveling, floor screed etc. The product is suitable for horizontal surfaces and indoor applications.

PRODUCT FEATURES

- Two-component, ready-to-use.
- 35% elongation allows for some movement.
- Will not "WELD" pavement together.
- Prevents joint sidewall chipping and spalling.
- Easy mix: 1:1 ratio by volume.
- Flows into joints as small as 1.5 mm wide.
- 100% solid (solvent-free).
- Easy application, pourable.
- Suitable for low movement slab cracks.

PACKAGING

Product	Packaging
Chem-Joint 35	2 gallons (8.0 kg)

TECHNICAL DATA

	Part A	Part B
Solids	100%	100%
Color	Clear	Grey
Density lb/gal (kg/L)	9.1 (1.09)	8.7 (1.05)
Shelf life	2 years	2 years
Mix ratio A:B (by Volume)	1:1 (by volume)	

Technical Data:

Properties	Value	ASTM Method
Density lb/gal (kg/L)	8.75 (1.05)	D-1475
Hardness (Shore)	51 D	D-2240
Gel Time (60g)	30 minutes	D-2471
Pot Life (5 kg)	27 minutes	-
Properties	Value	ASTM

		Method
Bond strength to concrete Psi (MPa)	680 (4.6)	C-882
Bond Strength to Steel Psi (MPa)	940 (6.4)	C-321
Elongation	126%	D-638
Water absorption	0.07% (24 hrs)	D-570
Final Cure	7 Days	-

Coverage: 1 liter of **Chem-Joint 35** yields approx. 1 kg. For a joint of 12 mm width and 12 mm depth, one work pack of **Chem-Joint 35** will fill approximately 55 linear meters of joint.

Chemical Resistance:

Tests are performed according the ASTM D543 –Practice A (Immersion test for 7 days at 25°C)

The fully cured material is resistant to:

- Water (Distilled, Tap, chlorinated, sewage, sea)
- Sulfuric acid 50%wt
- Caustic Soda, 50%wt
- Phosphoric acid, 85%
- Hydrochloric acid, 38 %wt
- Diesel
- Hydraulic Oil

Refer to manufacturer for resistance of other reagents.

APPLICATION DATA

Limitations:

- Application at ambient temperatures below 10°C is not recommended.
- Exposure to temperatures exceeding 65°C for prolonged periods is not recommended.
- Do not use with backer rods or bond breaker tapes.
- Do not use in high movement expansion joints.
- Never use solvents to thin this material.

Surface Preparations: Surface of application should be clean and sound. The surface must be free of any dust, oil, grease, laitance, curing compounds or any other contaminants. It may be dry, damp or wet but must be free of standing water. The very best results are obtained on dry concrete.

The minimum age of the concrete must be 28 days. Material should be installed when building is under constant temperature control.

The epoxy coatings, epoxy overlays such as self-leveling and mortar screeds must be completed and the control

construction joints saw cut grooves should be thoroughly cleaned. This is normally achieved with the use of a concrete saw having either a diamond or other abrasive blade. The cleaning should be extended to the bottom of the initial saw cut and be performed in such a manner that the joint sidewalls are freed from foreign debris.

After initial cleaning, joints should be thoroughly blown out with oil-free compressed air to remove all dust.

Joint Dimensions:

Joint width: 1.5 mm to 12 mm wide

Minimum joint depth: 19 mm depth
25 mm depth preferred

Mixing: Stir each component separately prior to mixing. Mix one part "A" with one part "B" by volume into a clean mixing container. Mix the epoxy with a slow speed drill with a mixing paddle attachment. Carefully scrape the sides and bottom of the pail during mixing. Blend for 3 minutes. Mix only the amount of material that can be used within pot life.

Note: Large batches of epoxy will cure much faster than small batches. Mixed epoxies will cure much faster in hot weather than in cold weather.

Application: Application of **Chem-Joint 35** may be poured into the prepared joint out of the mixing container with "V" lip edge, but the best results are obtained by using bulk load caulking guns. Fill joints to full depth. After 25 minutes has elapsed, the filled joints should be inspected for low spots due to seepage. Top-off these areas with neat material.

Silica Sand 1.2-1.7 mm may be poured before **Chem-Joint 35** application, to the bottom of the joint to prevent the material from running through shrinkage cracks at the bottom of the joint. In all cases the minimum $\frac{3}{4}$ inch (19-mm) of epoxy must be maintained as joint depth.

Chem-Joint 35 is designed to relieve stress to the slabs. This prevents concrete fractures while protecting the joint edges. The seal may be repaired by cleaning out any debris, blowing out the void with oil free compressed air, and re-filling the void with new **Chem-Joint 35**.

Repair Random Cracks: Route cracks out to a depth of at least $\frac{3}{4}$ inch (19 mm), but one inch (25 mm) is preferred. Blow the dust out of crack with oil free compressed air. Follow instruction above for neat joint sealant.

Epoxy Mortar Repairs: For use when the joints are greater than 12 mm width. Prime the surface with neat **Chem-Joint 35**. Add up to 3 parts by volume Silica Sand 0.3-0.8 mm to one part by volume **Chem-Joint 35** binder. Place the mortar into the joint before the primer loses its tack. Compact and finish the mortar with trowel.

Curing:

Cure **Chem-Joint 35** for one day before allowing light traffic and 7 days before allowing full traffic and chemical exposure.

CLEANING

All tools, equipment and re-usable containers should be cleaned up immediately using **Blended Solvents, M.E.K. or Xylene**.

STORAGE

The product should be stored in a cool, dry storage . Stir or agitate the container before use. Do not store at temperatures below 5°C or in direct sunlight.

SAFETY PRECAUTIONS

- Store all materials at 21°C during application and for at least 2 days prior to use. Low temperatures will increase viscosity of the product causing poor coverage and retarded cure.
- Substrate temperature must be no lower than 10°C during installation and during the full 3 to 5-day cure of the floor.
- When using solvent containing materials in confined spaces, the applicator should use a NIOSH/MSHA approved self-contained breathing apparatus with a full-face piece operated in a positive pressure mode.
- Mask out all areas to be protected. Remove masking tape before the epoxy cures.
- Exhaust ventilation must be provided in enclosed or confined spaces.
- Air conditions and heat vents must be sealed to prevent solvents from escaping to other parts of the building.
- Never allow any mix of epoxy resin and curing agent to remain in the mixing container for a prolonged period of time. The reactions of the two cause a heat build up. This in turn will cause the epoxy mix to decompose! Noxious fumes will be formed! If this occurs, vacate the area, remove the container to the outside and ventilate the area before returning to work.
- Use only spark-proof equipment in the area during installation and cure.
- Have CO₂ or other dry chemical fire extinguishers available at the job site.
- Follow all cautionary direction as printed on container labels.

TECHNICAL ASSISTANCE

Please contact International Chem-Crete Corporation for Technical Personnel.

WARRANTY

LIMITED WARRANTY: International Chem-Crete Inc. warrants that, at the time and place we make shipment, our materials will be of good quality and will conform to our published specifications in force on the date of acceptance of the order.

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