



CHEM-SEWER

Two Component Hydrophobic Epoxy Gel System

PRODUCT DESCRIPTION

Chem-Sewer is a two component solvent free, grey colored, ready-to-use, epoxy gel system, which will cure equally well both under and above water; bonding for all construction materials.

Chem-Sewer has a super-wetting quality, which tends to increase its bond strength.

FIELDS OF APPLICATION

Chem-Sewer has an excellent bonding to many construction materials. It is Full Gel, yet easy to mix and easy to apply by trowel. It withstands sulfuric acid and methanol; products of water with hydrogen sulfide and methane gas respectively.

Chem-Sewer is used in the following fields:

- Sewage, wastewater treatment plants
- Sewer pipes, canals repairs
- Septic sewer tanks, storm water systems
- Saline water treatment plants
- Refineries, power plants
- Chemical industries
- Leather, tanning, paper, textile, sugar industries
- Dairy farms, biogas plants

Chem-Sewer has a major role due to its properties, in complete manhole restoration system in combination with **Chem Novolac** and **Chem Injection systems**.

Effect: Manhole: Hydrogen sulfide gas condenses on manhole walls, creating sulfuric acid that attacks and deteriorates concrete and mortar joints. Failure of manhole surface and joints lead to infiltration and seepage, which threatens the structural stability of the manhole.

Chem-Sewer addresses to such deterioration of concrete and mortar joints in the manhole by structural repairs to walls and joints of the manhole and then an acid resistant coating **Chem Novolac** at 250 microns thickness.

Please refer to the brochure on complete manhole restoration system by Saudi Chem-Crete.

PRODUCT FEATURES

- Two components, ready-to-use work packs.
- Easily mixed and applied by trowel
- Excellent adhesion to all construction material – super wetting qualities tend to increase its bond strength.
- Can be applied under water and above water
- Longer pot life, comfort to applicator

- Excellent chemical abrasion resistance
- Solvent-free can be applied in confined areas
- System upon cure accepts chemical resistant epoxy coatings such as **Chem Novolac**, **HCR** coating.

PACKAGING

Product
Chem-Dowel 2

Packaging
2 and 10 gal/pack
(12.1 and 60.6 kg/pack)

TECHNICAL DATA

Compatibility: **Chem-Sewer** can be applied by trowel on top surfaces such as: concrete wet or dry, brick, cement mortar, steel, aluminum, wood, glass or ceramic surfaces, etc.

Technical Data at 25°C	Resin Part A	Hardener Part B
Solids	100%	100%
Color	White	Black
Density lb/gal (kg/L)	14 (1.68)	12.7 (1.53)
Shelf life	Two Years	Two Years
Mix ratio (A:B)	1:1 by volume	
Properties at 25°C	Typical mixed Values	ASTM Method
Viscosity	Non-sagging gel	N/A
Density lb/gal (kg/L)	13.3 (1.60)	N/A
Pot life (90 ml)	45 minutes	N/A
Gel time (125 µ)	8 hours	N/A
Shore hardness	45-D	D-2240
Tensile strength Psi (MPa)	5150 (35)	D-638
Flexural strength Psi (MPa)	3090 (21)	D-790
Properties at 25°C	Typical mixed Values	ASTM Method
Compressive strength Psi (MPa)	6170 (42)	D-695
Bond strength (24 hours)	650 (4.4)	C-321
Water absorption	0.45% (1 month)	D-570
Sulfuric acid, 25%	1.55% (1 month)	D-570
Methanol, 25%	0.61% (1 month)	D-570

APPLICATION DATA

Limitations:

Application at ambient temperature below 5°C is not recommended. Exposure to temperatures exceeding 65°C for prolonged periods is not recommended.

Surface Preparation:

Surface of application should be sound, clean and preferably dry. **Chem-Sewer** has good adhesion to damp, wet, dry substrates but very best results are achieved on dry substrates. The substrate must be free from any dust, oil, grease, laitance, curing compounds or any other contaminants. Water blasting with sand assist is the best technique for cleaning sewers and manholes.

Mixing:

Chem-Sewer is a full gel product, yet easily mixed and easy to apply by trowel. Mix equal volumes of Part A and Part B until thoroughly blend, uniform Grey color consistency is achieved. Carefully scrape the sides and bottom of the pail during mixing.

Note:

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

Application: Apply the homogeneous **Chem-Sewer** mixture by use of a trowel to the surface that requires repairs. Structurally repair the walls and joints of the manhole to provide an impermeable layer. Finish it off by using smoothing trowel to neat, smooth finish.

Over-coating: Over-coating on cured **Chem-Sewer** repairs can be commenced immediately upon achieving initial setting approx. 8 hours @ 25°C. Coatings such as **Chem Novolac** can be applied over **Chem-Sewer** in the manhole restoration system to increase the chemical resistance of the system.

CLEANING

Remove uncured **Chem-Sewer** from tools and equipment with a suitable solvent such as Xylene, Toluene or Blended solvents immediately after use. Cured material may only be removed mechanically.

STORAGE

Store in a dry area, between 5°C and 35°C. Protect from direct sunlight.

HEALTH PRECAUTIONS

- Part 'A' – Irritant: Prolonged skin or eye contact may cause sensitization and irritation.
- Part 'B' – Irritant: Contact with skin or eyes may cause severe burns.

First Aid:

- Skin contact:** Wash thoroughly with soap and lukewarm water.
- Eye contact:** Flush immediately with clean running water and contact a Physician.
- Respiratory problems:** Remove affected person to fresh air immediately and contact a Physician.
- Hygiene:** Wash hands immediately after use. Wash clothing before re-use.

SAFETY PRECAUTIONS

After full curing, the product is physiologically harmless. Keep the resin and hardener away from the eyes mouth and skin. Do not inhale vapours. Uncured mixture can cause irritation of the skin. The best precaution is to wear safety protective gloves, overall, mask and goggles while working. Skin contamination should be immediately cleaned with soap and plenty of water. The use of solvents should be avoided. If resin or hardener splashes into the eyes, wash immediately with running water. A Doctor must be visited in all cases. Forced ventilation should be provided when working with solvents, etc.

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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Manufactured By:



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