CEILCOTE® 748 Corrosion Grout

Chemical Resistant Epoxy Grout

Description

CEILCOTE 748 Corrosion Grout is a three-component chemical-resistant epoxy grouting material. It provides high strength, good adhesion to concrete and steel, minimal shrinkage and resists degradation by corrosive chemicals.

Typical Uses

- Chemical Pump Pads
- Process Equipment
- Chemical Storage Tanks
- Machinery
- Structural Steel Supports
- Pedestals

Advantages

- Excellent chemical resistance
- High Strength
- Superior adhesion
- Fast cure
- Low creep
- Resistant to shock and vibration
- Good flowability
- Low exotherm

Chemical Resistance

CHEMICAL	SPLASH/SPILL RATING			
	Good to Max. Temp.		Good to 100ºF	Not Recommended
ACIDS				
Acetic 10%		•		
Chromic				•*
Hydrochloric1% - Conc.			•	
Nitric				•*
Phosphoric 1-20%			•	
Sulfuric 1-50%		•		
ALKALINE				
Ammonium Hydroxide	•			
Potassium Hydroxide	•			
Sodium Hydroxide		•		
SOLVENTS				
Acetone		•		
MEK	•			
MIBK	•			
Styrene		•		
Toluene		•		
Xylene	•			
HYDROCARBONS				
Crude Oil	•			
Fuel Oil		•		
Gasoline	•			
Jet Fuel		•(160ºF)		

*Use CEILCOTE 100 Series Grout, contact Ceilcote

Additional information on the chemical resistance properties will be furnished on request.

Substrate

The substrate must be dry, strong and free of contamination.

Surface Preparation

Concrete surfaces must be roughened to remove all laitance. Recommended procedure is to chip the concrete to expose aggregate. Concrete surfaces must be clean.

Use degreaser to remove oil from steel. Abrasive blast all metal surfaces where a grout bond is desired. Build forms at least one inch above the bottom of equipment frame. Apply two coats of paste wax to forms. Be sure forms are completely sealed.

Application

CEILCOTE 748 Corrosion Grout is a three-component compound consisting of resin, hardener and aggregate.

Pour 748 Hardener into Resin, stir well. Pour resin/hardener mixture into mortar mixer. Working time for 748 Corrosion Grout is approximately 1 hour at 70º F (21º C). Add aggregate gradually while mixing. Mix until all particles are wetted out. **Do not operate mixer over 20 rpm**. Pour the grout from one side in order to prevent any air entrapment underneath equipment or plates. If required flow may be increased by prodding with sheet metal or plywood strips.

Mixing Ratio

	By Weight	By Volume
CEILCOTE 680 Primer		
680 Primer Resin	100	3
# 9 Hardener	30	1
	Mix complete units only	
CEILCOTE 748 Corrosion Grout	.4 cu ft unit	1.6 cu ft unit
748 Grout Resin	4.9 lbs (2.2kg)	19.5 lbs (8.8kg)
748 Grout Hardener	2 lbs (0.9kg)	8 lbs (3.6kg)
748 Grout Aggregate	46 lbs (21kg)	184 lbs (83kg)

Grout pour depth should not exceed 4 inches. Use multiple pours for deeper areas. Pour grout from one end to another in areas to be grouted. For added reinforcement especially in corner areas, embed ¼" to ½" steel rebar into the grout. Grout surface may be smoothed by hand troweling and then lightly brushed with mineral spirits.

Handling Properties

Working Time

Temperature	Primer	Grout
50°F (10º C)	60 min	120-150 min
73°F (21º C)	45 min	80-120 min
90°F (32º C)	20 min	45-60 min

Time to Place in Service

Temperature	At 10,000 psi
50°F (10º C)	60 hrs.
73°F (23º C)	18 hrs.
90°F (32º C)	8 hrs.

Accelerating Cure
The above cure times can be reduced approximately 1/3 by use of LTC accelerator, consult Ceilcote.

Coverage
Primer (optional): Steel 250 - 325 ft^2/gal (6 - 8 m^2/liter)
Grout .4 & 1.6 cubic ft.

Packaging
The following standard packages are available
CEILCOTE 680 Primer (optional) 1, 4 gal (3.79, 15.14 liter units)
CEILCOTE 748 Corrosion Grout .4 & 1.6 cubic ft. Units
CEILCOTE 748 Aggregate 46# Bag

Storage
Store in a cool, dry and covered location [50°-90°F (10°-32° C)], away from fire hazards and direct sunlight. Minimum shelf life at 70° F (21° C) for each component is indicated below:
CEILCOTE 680 Primer 18 months
CEILCOTE 748 Corrosion Grout 18 months
CEILCOTE 748 Aggregate Indefinite, if kept dry

Higher temperature will shorten the shelf life of these products. All liquid products are to be stored in a frost-free place.

Safety
CEILCOTE 748 Corrosion Grout contains epoxy resins and polyamine catalyst. The product's components have been formulated to optimize physical characteristics such as strength and chemical resistance while minimizing hazardous physical and health factors encountered during application. A concerted effort is made to be aware of the latest chemical toxicological information and to apply this knowledge in a responsible manner to ensure product safety.

During application of CEILCOTE 748 Corrosion Grout materials, always wear gloves and appropriate work clothing to minimize contact. Ventilation is required with special consideration for enclosed or confined areas. Air movement must be designed to insure turnover at all locations in work area and adjacent areas to avoid buildup of heavy vapors. Use caution when handling flammable liquid, eliminate sources of ignition from work area and containers with residues. Observe safe storage practices by separating resins from hardeners, by keeping solvents in a cool area, free of sources of ignition.

Product Material Safety Data Sheets are available and should be consulted when handling products. These products are for industrial and professional use only; application directions must be followed.

Maintenance
Periodically inspect the applied material and repair localized areas as needed. Consult your CEILCOTE representative for additional information.

Technical and Physical Data

	Test standard	Unit	Value
Generic Type			Silica filled, polyamine-cured epoxy
Density (full unit) (3.5 bag mix)	ASTM C905-96	lbs/cu.ft. (g/cc)	133 (2.13) 129 (2.07)
Compressive Strength	ASTM C579-96 Method B	Psi (Mpa)	17,000 (117)
Compressive Strength @ 170º F	ASTM C579-96 Method B	Psi (Mpa)	12,000 (83)
Compressive Strength (3.5 bag mix)	ASTM C579-96 Method B	Psi (Mpa)	15,100 (104)
Compressive Creep (600psi@140deg F)	ASTM C1181-00	in./in	4.0×10^{-3}
Compressive Creep (400psi@180 deg F)	ASTM C1181-00	in./in	4.0×10^{-3}
Tensile Strength	ASTM C307-94	Psi (Mpa)	2,500 (17)
Tensile Bond Strength (to steel)	ASTM D4541-93	Psi (Mpa)	2,500 (17)
Tensile Bond Strength (to concrete)	ASTM D4541-93	Psi (Mpa)	500 (3.5) exceeds the strength of concrete
Flexural Strength	ASTM C580-93	Psi (Mpa)	5000 (34)
Flexural Modulus (tangent)	ASTM C580-93	Psi (Gpa)	2.4×10^{6} (17)

Important Note
The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to law) any loss or damage arising out of the use of the product. WE HEREBY DISCLAIM ANY WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local International Paint representative that this data sheet is current prior to using the product.

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