

### Description

CEILCOTE 749DP Grout is a three-component chemical-resistant epoxy grouting material designed for virtually unlimited pour depths. It provides high flowability, high strength, good adhesion to concrete and steel, resists degradation by corrosive chemicals and does not compromise strength.

CEILCOTE 749DP Grout conforms to the American Petroleum Institute Standard 610, appendix L for baseplate and soleplate grouting.

### Typical Uses

- Chemical Pump Bases
- Machinery Base Plates, Sole Plates
- Chemical Storage Tanks
- Rotating Machinery
- Foundation Rebuild / Retrofits
- Skid Mounted Equipment
- Structural Steel Supports
- Pedestals

### Advantages

- Excellent chemical resistance
- Deep pours / Large Volumes
- High Strength
- Superior adhesion
- Resistance to Shock, Vibration & Dynamic Load
- Fast cure – Early Loading Capabilities
- Low creep
- Resistant to shock and vibration
- Excellent flowability
- Low exotherm

### Chemical Resistance

CEILCOTE 749DP Grout resists attack from spillage of non-oxidizing mineral acids and salts, caustics, dilute oxidizing acids and salts, plus most organic acids and solvents. 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

(The following procedures are abbreviated for informational purposes. Refer to Installation Procedure 5.61I prior to any application.)

Pour 749DP Hardener into Resin, stir well. Pour resin/hardener mixture into mortar mixer. Working time for 749DP Corrosion Grout is approximately 1 hour at 73° F (23° C). Add aggregate gradually while mixing. Mix only 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.

Isolation joints may or may not be necessary, with the low exotherm of CEILCOTE 749DP Grout. Please contact CEILCOTE to verify as these details and recommendations are installation specific.

### Mixing Ratio

|                              | By Weight                      | By Volume |
|------------------------------|--------------------------------|-----------|
| <u>CEILCOTE 680 Primer</u>   |                                |           |
| 680 Primer Resin             | 100                            | 3         |
| # 9 Hardener                 | 30                             | 1         |
| <u>749DP Corrosion Grout</u> | <b>Mix complete units only</b> |           |
|                              | <u>2.0 cu ft unit</u>          |           |
| 749DP Grout Resin            | 19.4 lbs (8.8kg)               |           |
| 749DP Grout Hardener         | 8.2 lbs (3.7kg)                |           |
| 749DP Grout Aggregate        | 250 lbs (113kg)                |           |

Pour grout from one side 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 (10° C) | 60 min | 120-150 min |
| 70°F (21° C) | 45 min | 90-120 min  |
| 90°F (32° C) | 20 min | 60-90 min   |

**Time to Place in Service**

| Temperature | At 10,000 psi |
|-------------|---------------|
| 50°F (10°C) | 48 hrs        |
| 70°F (21°C) | 24 hrs        |
| 90°F (32°C) | 12 hrs        |

**Coverage**

Primer (optional): Steel 250 - 325 ft<sup>2</sup>/gal (6 - 8 m<sup>2</sup>/liter)  
Grout 2.0 cubic ft.

**Packaging**

The following standard packages are available  
CEILCOTE 680 Primer (optional) 1, 4 gal (3.79, 15.14 liter units)  
CEILCOTE 749DP GROUT 2.0 cubic ft. Unit  
CEILCOTE 749DP Aggregate 50# Bag

**Storage**

Store material 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 749DP GROUT 18 months  
CEILCOTE 749DP 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 environment.

**Safety**

CEILCOTE 749DP 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 749DP 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 liquids, 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)   | ASTM C905-01          | lbs/cu.ft.<br>(g/cc) | 139.5 (2.23)   |
| Compressive Strength 16 hours   | ASTM C579-01 Method B | Psi<br>(Mpa)         | 8,700 (60) 5 bag   |
| Compressive Strength 24 hours   | ASTM C579-01 Method B | Psi<br>(Mpa)         | 13,000 (89.6) 5 bag 12,400 (85.5) 4 bag                        |
| Compressive Strength 7 days   | ASTM C579-01 Method B | Psi<br>(Mpa)         | 17,300 (119) 5 bag   |
| Compressive Strength 120° F cure  | ASTM C579-01 Method B | Psi<br>(Mpa)         | 21,300 (147) 5 bag 19,800 (136) 4 bag                          |
| Tensile Strength  | ASTM C307-99          | Psi<br>(Mpa)         | 2,430 (16.8) 5 bag 2,240 (15.4) 4 bag                          |
| Flexural Strength   | ASTM C580-02          | Psi<br>(Mpa)         | 5,000 (34.5) 5 bag 4,500 (31.0) 4 bag                          |
| Absorption  | ASTM C413-01          | %                    | 0.12 5 bag   |
| Rate of Burning   | ASTM D635-98          |                      | Self Extinguishing   |
| Bearing Area  | ASTM C1339            | %                    | High High  |
| Flow (to contact end plate)   | ASTM C1339            | minutes              | 3 min 4 bag 8 min 5 bag  |
| Flow (to fill under plate)  | ASTM C1339            | minutes.             | 5 min 4 bag 12 min 5 bag                                       |
| Creep (90°/1200 psi) @ 1 year   | ASTM C1181-00         | in/in                | $0.2 \times 10^{-3}$   |
| Creep (140°/400 psi) @ 1 year   | ASTM C1181-00         | in/in                | $2.9 \times 10^{-3}$   |
| Exotherm 6 x 12 inch cylinder Exceeds API 610 requirement of 110 deg. F | ASTM D2741-99         | °F (°C)              | 92 (33)  |
| Exotherm (Adiabatic) 3000gm   | ASTM D2741-99         | °F (°C)              | 108 (42)   |
| Coefficient of Expansion 32-140°F                                       | ASTM C531-00          | /°F (/°C)            | $13 \times 10^{-6}$ ( $23.4 \times 10^{-6}$ )                  |
| Flexural Modulus (tangent)  | ASTM C580-02          | Psi (Gpa)            | $2.4 \times 10^6$ (16.5) 5 bag $2.17 \times 10^6$ (15.0) 4 bag |

**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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