

### Description

The CEILCOTE 6400 Ceilcrete Series are time-tested and proven developments in chemical-resistant surfacing. They are designed especially for the protection of concrete and steel against the attack of corrosive chemicals. They provide excellent resistance to strong oxidizing acid solutions such as nitric, sulfuric and chromic. CEILCOTE 6400 Ceilcrete Series are trowel applied, in combination with a heavy-duty reinforcing layer of fiberglass or synthetic cloth.

CEILCOTE 6400S Ceilcrete is a silica filled system. CEILCOTE S-1 Powder is used as the filler for this standard system.

CEILCOTE 6400AR Ceilcrete is an abrasion resistant system. CEILCOTE S-9AR Powder is used as the filler for abrasion resistance. If hot caustic or fluorides are present use CEILCOTE S-10AR Powder to provide chemical resistance as well as resistance to abrasion.

CEILCOTE 6400B Ceilcrete is a carbon filled system. Use of CEILCOTE B-4 Powder creates an electrically conductive and non-sparking system. It also provides resistance to fluorides, including hydrofluoric acid.

### Typical Uses

- Tank lining
- Trench lining
- Tank Pads
- Scrubber lining
- Piers
- Floor covering
- Concrete pipe lining
- Chimney lining
- Equipment foundations
- Pump bases
- Secondary containment

### Advantages

- Excellent chemical resistance
- Monolithic / seamless
- Low coefficient of expansion
- Superior permeation resistance
- Strong, durable corrosion barrier

### Chemical Resistance

For specific chemical resistance data, refer to the CEILCOTE Corrosion Resistance Guide or contact CEILCOTE. Chemical resistance data on CEILCOTE 6400 Ceilcrete was developed using ASTM C 267 and ASTM C 868 in addition to actual installation performance history. Additional information on the chemical resistance properties will be furnished on request.

### Substrate

Refer to Ceilcrete concrete specification CPT-1 for concrete requirements and CPT-2 for steel.

### Surface Preparation

**Metal** - Steel must be abrasive blasted to "White Metal" for optimum performance. (Refer to SSPC SP 5 (Sa3 (ISO 8501-1:2007)) or NACE Specification No. 1). A minimum abrasive blast profile of 3 mils (75 microns) is required. Please refer to Construction Specification CPT-2.

**Concrete** - Abrasive blasting or scarification to remove laitance and surface contaminants is recommended. Concrete must be thoroughly cured, free of oils, curing solutions and mold release agents, dust and must be dry at time of application. Use ASTM D 4263 (plastic sheet test method) to ensure concrete is moisture free. If moisture is detected, re-test until dry. Alternately test per ASTM 1869 for maximum 3 lbs./24hrs., 1000 sq.ft/92.9m<sup>2</sup>. For concrete quality and preparation, please refer to Construction Specification CPT-1, CP-14, CP-17 & CS-10.

### Application

1. The surfaces to be lined should be at a minimum temperature of 50°F (10°C) for proper application.
2. Prime surfaces with CEILCOTE 380 primer for steel or concrete. Allow to cure tack free before proceeding.
3. Trowel base coat 1/16" (62.5 mils [1588µm]) thick.
4. Immediately press the fiberglass cloth into base coat.
5. Saturate by brushing or rolling on the saturating liquid until whiteness of glass disappears. Allow to cure.
6. Trowel 1/16" (62.5 mils [1588µm]) topcoat as evenly as possible, then smooth by brushing with Styrene Smoothing Liquid. Allow to cure. Refer to CEILCOTE Ceilcrete Series Installation Procedures (1.21) for testing procedures.

Mixing Ratio	By Volume
CEILCOTE 380 Primer 380 Primer Resin #2C Hardener	1 gal (3.785 litres) 2.5 oz (74ml)
CEILCOTE 6400 Ceilcrete* 6400 Ceilcrete Resin #3C Hardener	1 gal (3.785 litres) 2 oz (74ml)

*\*When mixing CEILCOTE 6400B use 4 oz (118ml) of #3C Hardener per gallon of resin*



**Handling Properties**

Working Time	380 Primer	6400 Ceilcrete
50°F (10° C)	60 min	90 min
70°F (21° C)	45 min	1 hr
90°F (32° C)	20 min	45 min

Recoat	380 Primer	6400 Basecoat/Saturant
50°F (10° C)	5 hrs	12-24 hrs
70°F (21° C)	2 hrs	4-8 hrs
90°F (32° C)	1 hrs	3-4 hrs

To ensure proper intercoat adhesion, CEILCOTE 6400 Ceilcrete basecoat should be recoated within two weeks when shaded from sunlight and one week if exposed to direct sunlight

Time to Place in Service	
50°F (10° C)	48 hrs
70°F (21° C)	24 hrs
90°F (32° C)	16 hrs

**Coverage**

Product	ft <sup>2</sup> /gal
CEILCOTE 380 Primer (for concrete or steel)	
	160 to 200ft <sup>2</sup> /gall (3.9-4.9m <sup>2</sup> /liter)
CEILCOTE 380 Primer with CEILCOTE C#1 Powder (For holiday testing)	140 to 160ft <sup>2</sup> /gall (3.4-3.9m <sup>2</sup> /liter)
STYRENE Smoothing Liquid	200ft <sup>2</sup> /gall (4.9m <sup>2</sup> /liter)
CEILCOTE 6400S Ceilcrete	14 to 16ft <sup>2</sup> /gall (0.3-0.4m <sup>2</sup> /liter)
CEILCOTE 6400B Ceilcrete	12 to 14ft <sup>2</sup> /gall (0.3m <sup>2</sup> /liter)
CEILCOTE 6400AR Ceilcrete	14 to 16ft <sup>2</sup> /gall (0.3-0.4m <sup>2</sup> /liter)
H Cloth	1.1 x actual square footage

Powders: ft <sup>2</sup> per 50 lb bag	S-1	B-4	S-9AR or S-10AR
CEILCOTE 6400S Ceilcrete	50		
CEILCOTE 6400B Ceilcrete		62	
CEILCOTE 6400AR Ceilcrete Base Coat	100		
CEILCOTE 6400AR Ceilcrete Topcoat			83

**Packaging**

The following standard packages are available  
 CEILCOTE 380 Primer 1, 5 & 30 gal units (3.785, 18.92, 113.55 litre units)  
 CEILCOTE 6400 Ceilcrete 5 gal units (18.92 litre units)  
 CEILCOTE 6400B Ceilcrete 5 gal units (18.92 litre units)  
 Type S-1 Powder 50 lb bags (22.65 kg)  
 Type S-9AR Powder 50 lb bags (22.65 kg)  
 Type S-10AR Powder 50 lb bags (22.65 kg)  
 Type B-4 Powder 50 lb bags (22.65 kg)  
 Type H Cloth (Standard) As required by ft<sup>2</sup>  
 Type F Cloth (Heavy Duty) As required by ft<sup>2</sup>  
 Type O Cloth (Synthetic) As required by ft<sup>2</sup>  
 Styrene Smoothing Liquid 1 & 5 gal (3.785, 18.92 litre unit)

**Storage**

Store in a cool, dry and covered location away from fire hazards and direct sunlight. Minimum shelf life at 70° F (21° C) for each component is indicated below:

CEILCOTE 380 Primer 6 months  
 CEILCOTE 6400 Ceilcrete 6 months  
 S-1, S-9AR, S-10AR & B-4 Powder 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**

Store in cool, dry area [50° - 90° F (10° - 32° C)] away from direct sunlight, flame or other hazards.

CEILCOTE 6400 Ceilcrete contains polyester resins and MEK peroxide 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 6400 Ceilcrete 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			polyester
Viscosity	Brookfield HB 100 rpm	cps	800
Compressive Strength	ASTM C579-96	Psi (Mpa)	11,000-13,000 (76-90)
Tensile Strength	ASTM C307-94	Psi (Mpa)	2,000-2,500 (14-17)
Taber Abrasion Factor	CS 17F wheel, 1,000 gm wt., 5,000 revolutions	mg	70-100
Coefficient of Expansion	(in/in/°F) range: 70°F to 210°F (21°C to 96°C) Reinforced, Type H cloth	°F (°C)	12-15 x 10 <sup>-6</sup> (7-8 x 10 <sup>-6</sup> )
Electrical Properties Carbon filled	Megger Reading - 3 ft span	ohms	0-200,000 (500 to 10,000 typical)
Permeance	ASTM E 96	perms	0.0135 @ 125 mils
<b>Flash Point</b> Ceilcrete 6400 resin Ceilcrete 380 Primer resin Ceilcote #3 Hardener Ceilcote #2 Hardener Styrene T-410 solvent	Pensky Martens closed cup	°F(°C)	83° F (28°) 83° F (28° C) 160° F (71° C) 162° F (72° C) 85° F (29° C) 35° F (2° C)
Service Temperature Limits	Immersion/condensing fumes (concrete) Immersion/condensing fumes (steel) Dry/noncondensing fumes Splash/spill/rinse (occasional) Splash/spill/rinse (frequent)	°F (°C)	180 (82) 160 (71) 220 (104) 250 (121) 160 (71)

**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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