

CEILCOTE® 282AR FLAKELINE® Lining

Spray applied vinyl ester lining

DESCRIPTION:

CEILCOTE 282AR FLAKELINE Lining is a flake-filled, novolac based vinyl ester corrosion and abrasion resistant lining system. The lining consists of two base coats and a topcoat, spray applied to produce a dry film thickness of 45 to 75 mils.

CEILCOTE 282AR FLAKELINE Lining was developed specifically for flue gas desulfurization system environments and to greatly improve resistance to surface wear. It has a proven performance record in scrubber outlet ducts at 130°F (54°C) subjected to saturated gas and incoming flue gas at approximately 350°F (177°C).

TYPICAL USES:

- For application on steel ducts or chimney liners exposed to scrubbed or unscrubbed flue gas as well as mixed or reheated gas streams containing relatively high concentrations of sulfuric acid.
- For other chemical-resistant applications where superior chemical, thermal, and wear resistance is required.

ADVANTAGES:

- Outstanding chemical resistance.
- Excellent high temperature resistance.
- Low permeation rate for longer, trouble free service.
- Proven performance in aggressive environments combining acid & high temperature.
- High resistance to abrasion & wear.

COLORS: Available in Cream

PHYSICAL PROPERTIES:

Tensile Bond Strength 1,200 to 1,500 psi (8 to 10 MPa)
ASTM D 4541-85

Moisture Permeability 0.0006 perm in.
ASTM E 96 Procedure E

Tensile Strength 5,700 psi (39 MPa)
ASTM D 638

Abrasion Resistance
 By incorporating abrasion resistant mineral fillers in the top coat, abrasion resistance is almost doubled over the resistance of CEILCOTE 282 FLAKELINE lining.

Tabor Coefficient
CS-17 Wheels, 1000 gm, 1000 cycles

- CEILCOTE 282 FLAKELINE Lining: 91 mg
- CEILCOTE 282AR FLAKELINE Lining: 54 mg

Density (wt/gal) 10.3 ±0.2 lbs/gal (1.24 ±0.02 kg/litre)

Flash Point
Pensky-Martens Closed Cup 89°F (32°C)

Volatile Organic Compounds (VOC)
Lab 23 Method of Reg. 8-4-111 of California Code
 0.098 lb/gal (12 g/litre)

Service Temperature Limits (Continuous):

- Immersion/Condensing Fumes 150°F (66°C)
- Non condensing Fumes 400°F (204°C)

Shelf Life (Expiration dates printed on labels)

- 2 months @ 70°F to 80°F (21°C to 27°C)
- 30 days or less @ 80°F to 90°F (27°C to 32°C)

Mixing Ratio:

2-1/2 oz of #2C Hardener per .75 gal of resin.

Coverage:

Actual coverage is 50 to 60 ft²/gal (1.2 to 1.5 m²/litre) @ 17.5 mils (one coat) which includes approximately 20% loss due to waste and over spray.

Handling Properties:

	50°F (10°C)	73°F (24°C)	90°F (30°C)
Working Time	1-1/2 hrs	1 hr	20 min
Recoat Time	6 hrs	3 hrs	2 hrs
Curing Time	48 hrs	24 hrs	16 hrs

PACKAGING:

- 3/4 & 4 gal. units of CEILCOTE 222HT/282BC FLAKELINE base coat
- 4 gal units of CEILCOTE 282AR FLAKELINE topcoat

LIMITATIONS:

Store in a cool, dry place away from fire hazards. Due to limited shelf life, Master Builders Inc. will not warranty the shelf life of CEILCOTE 282AR FLAKELINE Lining and will not accept return of this material.

CEILCOTE 282AR FLAKELINE Lining must be recoated within 7 days when shaded from sunlight. If the coating is applied in sunlight (even on cloudy days), it must be recoated within 4 hours to obtain proper inter-coat adhesion.

APPLICATION: (abbreviated)

(For complete details, refer to Installation Procedure #2.21 for CEILCOTE 200 FLAKELINE Series)

SURFACE PREPARATION:

Steel:

For immersion or high temperature service, a "White Metal" abrasive blast (SSPC #5-89 or NACE #1) is required with a minimum anchor pattern profile of 3 mils.

Concrete:

Abrasive blasting or scarification to remove laitance and surface contaminants is required. Concrete must be thoroughly cured, free of oils, curing solutions and mold release agents, dust and must be dry at time of application. Reference ASTM D-4263.

APPLICATION (Abbreviated), continued:

Primers:

For Steel Surfaces:

CEILCOTE 370 PRIMER

For Concrete Surfaces:

CEILCOTE 380 PRIMER or

CEILCOTE 380C (Conductive) PRIMER

Mechanically premix CEILCOTE 222HT/282BC resin (i.e. Part A) or CEILCOTE 282AR FLAKELINE Topcoat Liquid component individually prior to adding hardener. After initial mixing, add 2-1/2 oz. of #2C Hardener per gallon of CEILCOTE 222HT/282BC resin or 282AR Topcoat Liquid and mix three to five additional minutes.

Base Coat:

Apply CEILCOTE 222HT/282BC base coat at 20 to 32 mils WFT to yield 15 to 25 mils DFT. Allow to harden. Repeat for second base coat application.

Topcoat:

Apply CEILCOTE 282AR FLAKELINE Topcoat at 20 to 32 mils WFT to yield 15 to 25 mils DFT.

Thinning:

None required. DO NOT THIN.

APPLICATION EQUIPMENT:

• Conventional Spray

Use Binks 18 or 62 Spray Gun, 66 Spray Tip and Needle with 63 PM, 63 PB or 63 PK Aircap or other manufacturer's equivalent. Use pressure pot with 3/8 inch fluid line (maximum 30 feet length) or 1/2 inch ID fluid line when spraying at heights or where 50 feet hose length is required.

For high volume or long distance applications, a 4:1 or 8:1 ratio pump can be used to provide material to the spray gun and use a minimum atomization pressure to break up and flow out with minimum overspray.

• Airless Spray

Not recommended.

• Brush or Roller

Must be spray applied. Brush or roller recommended for minor touch-up only.

CLEAN UP:

Use T-410 Solvent, methyl ethyl ketone or lacquer thinner.

DO NOT USE ACETONE SOLVENT.

SAFETY:

- CEILCOTE 282 FLAKELINE Base Coat and Topcoat contain vinyl ester resins, styrene monomer and inert flake filler. The hardener is an organic peroxide. The product's components have been formulated to optimize physical lining characteristics 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 insure product safety.
- During application of CEILCOTE 282 FLAKELINE Lining materials, always wear gloves and appropriate work clothing to minimize contact. Ventilation is required with special consideration for enclosed or confined area. Air movement must be designed to insure turn over at all locations in work area and adjacent areas to avoid build up 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 and hardeners in a cool area free of sources of ignitions and by observing a special warning on RED and YELLOW labeled products. The RED label represents amine type chemicals and the YELLOW label represents organic peroxide type chemicals which should not be stored adjacent or mixed together because of the possible violent reaction between them.
- Product Material Safety Data Sheets (MSDS) and Installation Procedures are available and should be consulted when handling products. These products are for industrial and professional use only. Application directions must be followed.

For more information, contact your local Master Builders Representative.

Master Builders, Inc. United States

23700 Chagrin Boulevard
Cleveland, Ohio 44122-5554
(800) MBT-9990
Fax (216) 831-6910

Canada

3637 Weston Road
Toronto, Ontario M9L 1W1
(800) 387-5862
Fax (416) 741-7925

Mexico

Blvd. M. Avila Camacho 80, 3er Piso
53390 Naucalpan, México
011-525-557-5544
Fax: 011-525-395-7903