Ceilcote® 140 Flakeline

International

Vinyl Ester

PRODUCT DESCRIPTION

Ceilcote 140 Flakeline is a heavy duty, glass flake reinforced, chemically resistant vinyl ester lining for protection of steel against aggressive chemicals in immersion service.

INTENDED USES

For use in aggressive environments including limestone slurry scrubbers in FGD units and other areas where a high level of acid resistance is required.

PRACTICAL INFORMATION FOR CEILCOTE 140 FLAKELINE

Color	Off White
Gloss Level	Not applicable
Volume Solids	100% reactive
Typical Thickness	30-60 mils (750-1500 microns) dry equivalent to 33.3-66.7 mils (833-1667 microns) wet per coat
Practical Coverage	36 sq.ft/US gallon at 40 mils d.f.t and 90% volume solids 0.90 m²/litre at 1000 microns d.f.t and 90% volume solids (see Page 3 Product Characteristics).
Method of Application	Trowel

Drying Time

			Overcoating interval with self	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
50°F (10°C)	105 minutes	7.5 hours	24 hours[1]	4 weeks[2]
59°F (15°C)	90 minutes	6.5 hours	8 hours[1]	4 weeks[2]
77°F (25°C)	90 minutes	3.5 hours	4 hours[1]	4 weeks[2]
95°F (35°C)	60 minutes	2 hours	3 hours[1]	2 weeks[2]

[1] Minimum overcoating intervals are indicative and overcoating may take place as soon as walk-on hardness is achieved.
[2] Surfaces should be topcoated within one week when exposed to direct sunlight. See Application Guidelines for further details.

REGULATORY DATA

Flash Point (Typical)	Part A 90°F (32°C); Part B 171°F (77°C); Mixed 90°F (32°C)	
Product Weight	10.6 lb/gal (1.27 kg/l)	
VOC	2.18 lb/gal (262 g/lt)	EPA Method 24
	153 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

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SURFACE PREPARATION

All surfaces to be coated should be clean, dry and free from contamination. Prior to paint application, all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Steel Substrates

For immersion service or service in humid conditions or elevated temperatures, this product should be applied to suitably primed surfaces which have been prepared by abrasive blast cleaning to Sa3 (ISO 8501-1:2007), SSPC SP5 or NACE #1. A minimum surface profile of 3 mils (75 microns) is required.

Concrete Substrates

Ceilcote 140 Flakeline is not suitable for application to concrete.

APPLICATION

Mixing

Ceilcote 140 Flakeline is a multi-component product and as such the correct mixing ratios and working pot life must be strictly adhered to.

(1) Agitate Base (Part A) with a power agitator.
(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.

When FG-1 Dye is to be used, this should be incorporated into Part A, prior to addition of Part B, to achieve a uniform colour. **Do not mix more material than can be applied within the recommended pot life.**

Mix Ratio

1 gallon Part A : 2½oz Part B (1 litre Part A : 20ml Part B)

Working Pot Life

50°F (10°C)	59°F (15°C)	77°F (25°C)	95°F (35°C)
90 minutes	60 minutes	45 minutes	30 minutes

Airless Spray

Not suitable

Roller

Use for smoothing only.

Trowel

Recommended

Thinner

DO NOT THIN

Cleaner

Ceilcote T-410 Solvent (or International GTA203)

Work Stoppages

Do not allow material to remain in hoses, guns or spray equipment. Thoroughly flush all equipment with Ceilcote T410 or International GTA203. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units

Once units have been mixed, work should continue until all mixed material has been used.

Clean Up

Clean all equipment immediately after use with T-410 Solvent. Frequency of cleaning will depend upon amount applied, temperature and elapsed time, including any delays.

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

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PRODUCT CHARACTERISTICS

This datasheet provides general guidance on the use of Ceilcote 140 Flakeline. Specific project requirements will be dependent upon the service end use and operating conditions of the tank or vessel. Always consult International Protective Coatings to confirm that Ceilcote 140 Flakeline is suitable for contact with the product to be stored.

The detailed project coating specification provided by International Protective Coatings must be followed at all times.

The detailed Application Guidelines for the relevant Ceilcote system should always be consulted prior to use.

Ceilcote 140 Flakeline is resistant to most acids, alkalis and solvents. For specific chemical resistance contact International Protective Coatings.

The Ceilcote 140 Flakeline system may be used for high temperature service with the selection of the appropriate primer; see the relevant Application Guidelines for further information.

Although Ceilcote 140 Flakeline is 100% reactive, depending upon the application conditions, the practical volume solids may be lower and International Protective Coatings suggest a value of 90% for estimating spreading rate.

Apply in good climatic conditions. The temperature of the surface to be coated should be between 50ºF (10ºC) and 113ºF (45ºC) and at least 5ºF (3ºC) above the dew point. In line with good painting practice, application should not take place in conditions which are deteriorating, e.g. the temperature is falling or there is a risk of condensation forming. Dehumidification (DH), air conditioning and/or heating equipment may be necessary to control environmental conditions.

If applying Ceilcote 140 Flakeline in enclosed maintenance conditions ensure adequate ventilation.

Where the overcoating interval is exceeded, confirm recoatability by wiping with styrene monomer. If the surface becomes 'tacky', adhesion is acceptable. If not softened by styrene, the surface must be sweep blasted or mechanically abraded to provide a non-glossy, abraded surface. Primed surface must be dry and free of foreign matter at time of lining, coating or flooring application.

Following correct installation, Ceilcote 140 Flakeline may be returned to service after the following intervals:

50ºF (10ºC): 48 hours
70ºF (20ºC): 24 hours
90ºF (35ºC): 16 hours

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in color and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also effect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Ceilcote 140 Flakeline is designed to be used in combination with a number of Ceilcote primers, linings or coatings. Please consult the specification and Application Guidelines.

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ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Ceilcote 140 Flakeline Application Guidelines

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations.
All work involving the application and use of this product should be performed in compliance with all relevant national Health, Safety and Environmental standards, regulations and legislation.

Proper ventilation must be provided during application and afterwards during curing (refer to product datasheets for typical curing times) to ensure safe limits and prevent fires and explosions. Forced extraction will be required in confined spaces. Ventilation and/or respiratory personal protective equipment (airfed hoods or appropriate cartridge masks) must be provided during application and curing. Take precautions to avoid skin and eye contact (overalls, gloves, goggles, masks, barrier cream, etc).

Before use, obtain, read and then follow the advice given on the Material Safety Data Sheets (Base and Curing Agent if two-pack) and the Health and Safety section of the Coatings Applications Procedures for this product.

In the event that welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

The detailed safety measures are dependent on application methods and the work environment. If you do not fully understand these warnings and instructions or if you cannot strictly comply with them, do not use the product and consult International Protective Coatings.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	15 liter	14.71 liter	20 liter	0.29 liter	0.7 liter
	4 US gal	4 US gal	5 US gal	12.5 fl oz	1 US pint

SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A	Part B
	15 liter	20.88 kg	0.39 kg
	4 US gal	47.6 lb	1 lb

STORAGE		
	Shelf Life	6 months at 68ºF (20°C). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition. During storage and shipment, Ceilcote 140 Flakeline initiator must not be exposed to temperatures exceeding 30°C (90°F). Refrigeration recommended. Best practice would be to hold Parts A and B in separate stores.

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