Ceilcote® 242GF Flakeline

Vinyl Ester

PRODUCT DESCRIPTION

Ceilcote 242GF Flakeline is a vinyl ester resin system with graphite fillers, which exhibits excellent resistance to organic and inorganic acid solutions, hot caustic, and oxidizing bleach solutions. It provides excellent resistance to hydrofluoric acid. Ceilcote 242GF Flakeline can be used where electrical conductivity is required.

INTENDED USES

For use in aggressive environments in a wide range of industries, including the oil and gas, chemical, mining, water and waste water and power markets. Assets such as steel and concrete tanks and structures, trenches and pits, vaults and dykes and secondary containment requiring a high performance lining system with excellent chemical and mechanical properties.

Ceilcote 242GF Flakeline is a graphite filled system providing improved performance benefits:

- Excellent chemical resistance to organic and inorganic acids, hot caustic service and oxidizing bleach solutions
- Thermal and mechanical shock resistance
- Good impact resistance

Consult an International Protective Coatings representative for product suitability.

PRACTICAL INFORMATION FOR CEILCOTE 242GF FLAKELINE

Colour	Graphite
Gloss Level	Not applicable
Volume Solids	83%
Typical Thickness	375-625 microns (15-25 mils) dry equivalent to 452-753 microns (18.1-30.1 mils) wet
Theoretical Coverage	1.80 m²/litre at 450 microns d.f.t and stated volume solids 74 sq.ft/US gallon at 18 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless spray, Air Spray, Brush, Roller

Drying Time

			Overcoating Interval with recommended topcoats	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
10°C (50°F)	5 hours	16 hours	12 hours	7 days[1]
25°C (77°F)	60 minutes	3 hours	4 hours	7 days[1]
50°C (122°F)	40 minutes	60 minutes	3 hours	7 days[1]

[1] See Product Characteristics section for further details

REGULATORY DATA

Flash Point (Typical)	Mixed 32°C (90°F)
Product Weight	1.19 kg/l (9.9 lb/gal)
VOC	2.62 lb/gal (315 g/lt) EPA Method 24

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.

Steel Substrates

For immersion or intermittent splash and spillage conditions, abrasive blast to 'White Metal' in accordance with SSPC-SP5, NACE 1 or ISO 8503-1 Sa3.

For fumes and dry environments, abrasive blast to 'Near White' in accordance with SSPC-SP10, NACE 2 or ISO 8501-1 Sa2½. A minimum surface profile of 75µm (3 mils) is required. If a holding primer is required for Ceilcote 242GF Flakeline, then only the use of Ceilcote 380 Primer at 50-125 microns WFT (2-5 mils WFT) is advised.

Concrete Substrates

Concrete should be well cured prior to coating. The concrete surface should be dry and pass the plastic sheet test (ASTM D4263). All surfaces should be clean, dry and free from curing compounds, release agents, trowelling compounds, surface hardeners, efflorescence, grease, oil, dirt, old coatings and loose or disintegrating concrete. All concrete surfaces must also be abrasive blast cleaned to provide a roughened surface and remove laitance. The surface tensile strength (ASTM 4541) as prepared should be at least 2MPa (300 psi) for linings (1.4MPa (200 psi) for coatings). Surfaces must be primed using Ceilcote 380 Primer at 50-125 microns WFT (2-5 mils WFT).

Consult the Ceilcote 242GF Flakeline Application Guidelines for more details regarding surface preparation.

APPLICATION

Mixing

Ceilcote 242GF 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 proper mix ratio of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.

Do not mix more material than can be applied within the recommended pot life.

Mix Ratio

51.2 part(s) : 1 part(s) by volume 1 litre Part A : 15ml Part B (1 gallon Part A : 2oz Part B)

Working Pot Life

10°C (50°F)	25°C (77°F)	50°C (122°F)
85 minutes	60 minutes	15 minutes

Airless Spray	Recommended	Tip Range 0.91-1.09 mm (36-43 thou) Total output fluid pressure at spray tip not less than 211 kg/cm² (3000 p.s.i.)
Air Spray (Pressure Pot)	Suitable	
Air Spray (Conventional)	Suitable	
Brush	Suitable	Only for small areas, touch ups or when spraying is not possible
Roller	Suitable	Only for small areas, touch ups or when spraying is not possible
Thinner	DO NOT THIN	
Cleaner	Ceilcote T-410 Solvent	

Work Stoppages

Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with T-410 Solvent. 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.

Clean Up

Clean all equipment immediately after use with T-410 Solvent. It is good working practice to periodically flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, 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 242GF Flakeline. Specific project requirements will be dependent upon the service end use and operating conditions. Always consult International Protective Coatings to confirm that Ceilcote 242GF 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.

The Ceilcote 242GF Flakeline application shall be conducted by the Applicator Company using employees trained in the appropriate application procedures. It is strongly advised that both supervisory and application personnel on site shall have attended a Ceilcote Applicator Training Program.

Elevated storage temperatures reduce shelf life. Uncatalysed Ceilcote 242GF Flakeline is stable for 6 months from date of manufacture when stored below 25°C (77°F) in its original sealed containers. Ceilcote 242GF Flakeline should never be stored in direct sunlight. It is recommended that material temperatures be kept as low as possible via refrigeration if necessary in order to prolong shelf life and pot life during airless spray application. It is important to take into consideration that material temperatures will increase following mixing. A recommended storage temperature range is 8°C-19°C (46°F-66°F).

Ceilcote 242GF Flakeline is recommended to be applied by airless spray; application by other methods, e.g. brush or roller, may require more than two coats and is suggested for small area or areas where spraying is not an option. Surface texture and uniformity will vary with brush or roll application.

This product must **not** be thinned as the use of thinners may severely inhibit the curing mechanism of the coating.

Surface temperature must always be a minimum of 3°C (5°F) above dew point. The relative humidity during application and curing should not exceed 80%. This product will not cure adequately below 10°C (50°F). For maximum performance ambient curing temperatures should be above 10°C (50°F).

Do not apply if substrate temperature is more than 43ºC (110°F). If temperature drops below 10ºC (50°F) for short durations, consult International Protective Coatings representative.

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. When surface temperatures exceed 43°C (110°F), or when exposed to direct sunlight, Ceilcote 242GF Flakeline should be overcoated as soon as hard dry to avoid intercoat adhesion problems.

Maximum continuous dry temperature resistance for Ceilcote 242GF Flakeline is 177ºC (350°F). Consult International Protective Coatings for temperature limits for specific immersion environments.

Ceilcote 242GF Flakeline is not intended to be used as a cosmetic finish and colour stability will not be achievable.

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 colour and normal manufacturing tolerances.

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

SYSTEMS COMPATIBILITY

Ceilcote 242GF Flakeline is designed to be used in combination with a number of Ceilcote primers, linings or coatings. Please consult the specification and Application Guidelines.

Suitable primers are:

Ceilcote 380 Primer

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
- Theoretical & Practical Coverage
- Ceilcote 242GF 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 in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

It is important that only the supplied components be mixed; mixing the base or curing agent with other products may result in uncontrolled reaction, leading to injury or fire. Please refer to the MSDS for each of the components and container labels for this product.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event 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.

If in doubt regarding the suitability of use of this product, consult International Protective Coatings for further advice.

PACK SIZE

Unit Size	Part A		Part B	
	Vol	Pack	Vol	Pack
0.75 US gal	0.75 US gal	1 US gal	0.02 US gal	0.05 US gal
4 US gal	4 US gal	5 US gal	0.1 US gal	0.2 US gal
25 US gal	25 US gal	30 US gal	0.57 US gal	1 US gal

For availability of other pack sizes, contact International Protective Coatings.

SHIPPING WEIGHT (TYPICAL)

Unit Size	Part A	Part B
0.75 US gal	8.2 lb	0.2 lb
4 US gal	43.2 lb	0.9 lb
25 US gal	287.9 lb	5.8 lb

STORAGE

Shelf Life: 6 months at 25°C (77°F). Store in dry, shaded conditions away from sources of heat and ignition.

Important Note

www.international-pc.com