



## CUMI FLAKELINE-PXT

(Advanced Glassflake Composite Coating)

### DESCRIPTION

CUMI FLAKELINE-PXT is a new advanced glass flake reinforced heavy duty protective coating and lining system. With superior chemical resistance it is carefully formulated and is based on a proprietary advanced vinyl ester composite and is offered in both colourless and pigmented versions. CUMI FLAKELINE-PXT is an ideal lining product recommended where in chemicals will come in direct contact with the substrate. It is used for steel and concrete. CUMI FLAKELINE-PXT is also recommended for rebuilding small worn out metal components.

CUMI FLAKELINE-PXT application consists of a 3-coat system – a primer coat , a body coat, and a top coat.

### USES

- It is an excellent coating and lining system for tanks, reaction and process vessels, plant floorings, walls, ceiling and drains.
- It is recommended and suitable for a wide range of environments and industries, such as chemical , petrochemical, pharma, dairies, fertilizer, dyes, heavy chemicals, minerals and metals, intermediates, steel, marine, caustic-chlorine, pulp and paper, power, textiles, transportation etc.,
- It is also specially recommended in FGD towers, scrubbers, stacks and ducts, and corrosive chemicals handling flowlines such as pumps, fans, etc.

### ADVANTAGES

- Excellent penetration resistance and durability
- Outstanding chemical resistance towards acids, alkalies, salt solutions and general solvents.
- Very Good Abrasion resistance.
- High temperature stability, up to 200 °C.

### PROPERTIES

#### PRIMER COAT

Properties	CUMI FLAKELINE-P
Mixing Ratio, pbw : Cumiflake-P / Accelerator- P / Curing Agent-MP	100 / 0.35 / 1.2
Working Time at 27°C, in minutes, minimum.	30
Material requirement, approx., gms/sq.m	300
Theoretical DFT for 300 gms / Sq.mtr, microns	~ 250
Method of application	Brush / Roller
Adhesion strength to steel, N/mm <sup>2</sup> , min.	5
Over coating interval, hours, minimum	4

#### BODY COAT

Properties	CUMI FLAKELINE-PXT
Mixing Ratio, pbw : Cumiflake-PXT/Accelerator-P/Curing Agent-MP	100 / 0.35 / 1.0
Working time at 27°C, in minutes, min.	30
Recommended dry film thickness, mm	~ 800 microns, generally 1.5 mm for heavy duty
Material requirement for 1.5 mm dry film thickness, ~ kgs/sq.m	3.0
Number of coats for 1.5 mm thickness	2
Method of Application	Trowel
Hard dry at 27°C, in days,	1
Over coating interval, hours, minimum	4

#### TOP COAT

Properties	CUMI FLAKELINE-PTC
Mixing Ratio, pbw : Cumiflake-PTC/Accelerator-P/Curing Agent-MP	100 / 0.35 / 1.0
Working time at 27°C, in minutes, minimum	30
Number of Coats recommended	1 or 2
Material requirement, approx., gms/sq.m / coat	300
Curing time, days	7
Over coating interval, hours, minimum	4
DFT for 300 gms / sq.mtr, microns, minimum	250
Method of application	Brush / Roller
Thinner for Primer, Screed & Top Coat	Thinner for CUMI FLAKELINE

### APPLICATION INSTRUCTIONS

#### Surface preparation:

#### For Steel:

The surface must be free from traces of grease, oil or moisture. The pre-requisites for good adhesion of the coating are cleanliness, roughness and dryness of the surface. The surface is prepared by abrasive blast cleaning to Sa2 ½ / Sa3

#### For Concrete:

Concrete surfaces should be clean and free from laitance, oil and other contamination. The surface should be even and free of pot holes.....It is prepared by sand or abrasive blast cleaning or by mechanical abrading and where it is not possible, acid etching is adopted although it is not as effective as blast cleaning.

#### Typical Coating Specification:

Over the clean surface, preferably prepared by abrasive blast cleaning, apply one coat of CUMI FLAKELINE-P, followed by application of CUMI FLAKELINE-PXT in 1 or 2 layers as per the thickness recommendation, followed by application of 1 or 2 coats of CUMI FLAKELINE-PTC, allow to cure for 7 days , before release for service. The total dry film thickness shall be about 1 or 2 mm minimum depending up on 1 or 2 coats respectively of CUMI FLAKELINE-PXT adopted in the coating / lining specification.

#### PRIMER COAT APPLICATION :

Using a low speed mechanical stirrer / electric drill, mix the contents well in CUMI FLAKELINE-P container for about a minute. Charge required quantity of Accelerator-P and mix for a minute followed by dosing required quantity of Curing Agent-MP and continuing the mixing for about a minute till a homogeneous mix is obtained. Allow 2-3 minutes maturation time before proceeding with application of this primer over the prepared surface using a roller or brush. The coated surface is allowed to set and cure for about 3-4 hours.

#### BODY COAT APPLICATION:

The CUMI FLAKELINE-PXT mix is similarly prepared as detailed above for Primer application. The PXT mix so prepared is spread over the set primer evenly and gently compacted using a steel trowel followed by finishing with a roller. Use of Thinner for CUMI FLAKELINE is recommended for frequent cleaning of the trowel or application tools while the job is in progress. In 1 coat of about 750 to 850 micron wet film thickness is to be achieved and this shall be monitored by quantity of material applied. It is allowed for setting and curing for 3-4 hours before top coat application.

## TOP COAT APPLICATION:

The CUMI FLAKELINE-PTC mix is similarly prepared as recommended and using a roller or brush is applied over set PXT coating and allowed to set and cure for 7 days before releasing for service.

## NOTES :

1. Application of CUMI FLAKELINE-PXT system is recommended in the temperature range 10 to 35 deg C / relative humidity under 75 / 3° C above dew point.
2. All the weld seams shall be flush, no sharp corners, and edges shall have minimum 5 mm radius and the surface throughout shall be even with no sudden rises or depressions.
3. Typically preparation of the mix for primer coat/body coat/top coat consists mixing of the contents in respective CUMI FLAKELINE containers for a minute followed by dosing the Accelerator-P, continuing the mixing for a minute followed by dosing Curing Agent-MP and continuing the mix for a final 1 minute. The mix is then allowed for a 2-3 minute maturation time before starting it's application.
4. It is absolutely essential in the application area / equipment, good ventilation – natural or forced shall be ensured.
5. Application of CUMIFLAKELINE-PXT system calls for skill and shall be executed by only experienced personnel.
6. Adhering to industrial safety requirements and use of personal protective equipment like – overalls, gloves, goggles and mask is a must.
7. Thickness measurement, porosity check and adhesion checks all shall be systematically carried out and documented.
8. The user is recommended in advance to verify suitability of CUMI FLAKELINE-PXT to the chemical and operating conditions including thermal and loading with CUMI before proceeding on its use for the intended service.
9. For cleaning of application equipment and tools between breaks or on completion of day's work, use of Corocretin Thinner U is recommended.
10. Never ever mix Accelerator-P with Curing Agent-MP directly as this will produce a spontaneous explosive reaction. So always keep these two containers placed away from each other.
11. Do not proceed with the application during rain, fog or mist.
12. The consumption figures and dry film thickness data are given only for guidance. It depends on the surface profile, ambient temperature, application skill, wind velocity, wastage, etc.
13. There may be a slight variation in shade from batch to batch. Hence it is recommended that the same batch material shall be used for the topcoat for better colour/shade uniformity.

14. For all corners, the treatment shall be additionally reinforced with 1 ply of fiberglass mat lining. Similarly areas like manhole covers, blind flanges shall be additionally reinforced with a 2-ply fiberglass mat.
15. Dosage of Accelerator-P and Curing agent-MP can be varied a little to suit site conditions.
16. For further details please contact our Marketing services department.

## COVERAGE

CUMI FLAKELINE-P (Primer)	3-4 Sq.mtr / Kg / Coat
CUMI FLAKELINE-PXT (Body Coat)	0.67 Sq.mtr / Kg / mm
CUMI FLAKELINE-PTC (Top Coat)	3-4 Sq.mtr / Kg / Coat

## PACKING

CUMI FLAKELINE-P (Primer) , Kgs	5,10
CUMI FLAKELINE-PXT (Body Coat) , Kgs	20
CUMI FLAKELINE-PTC (Top Coat) , Kgs	5,10

## STORAGE & SHELF LIFE:

All CUMI FLAKELINE products have a shelf life of 3 months under 25°C while Accelerator-P and Curing Agent-MP have a shelf life of 12 months under 25°C. All products as supplied in the original packing shall be stored in a cool and dry place away from sunlight, moisture, high humidity, and ignition sources.

## HEALTH & SAFETY

All CUMI FLAKELINE materials and associated products covered above contains resins or sensitive organics in nature, which may cause sensitisation by skin contact. Avoid contact with skin and eyes and inhalation of vapour. Wear suitable protective clothing, gloves and goggles while handling.

## ADDITIONAL INFORMATION

Carborundum Universal Limited - Prodorite Division also supplies other construction chemicals, concrete repair and rehabilitation products including protective coatings, epoxy and polyurethane coatings and floor toppings, acid, alkali and chemical resistant brick / tile linings, chemical storage tanks, vessels, scrubbers, pipes and fittings and other custom-built items in FRP, PP-FRP, PVC-FRP & PVDF-FRP, FRP Gratings, etc.

## WARRANTY

Whilst Carborundum Universal Limited strives to ensure that any advice, information or recommendation given above are appropriate and correct, it cannot accept any liability directly or indirectly arising out of the products, since the method and place of application of the products are beyond its control. Its guarantee is therefore limited to the quality of materials delivered.



## CARBORUNDUM UNIVERSAL LIMITED PRODORITE DIVISION

Specialists in Corrosion Management since 1962

Sreela Terrace, 105, Gandhi Nagar First Main Road, Adyar, Chennai – 600 020.

Phone: 044-3981 3300 Fax: 044-42187816,

e-mail: [prodorite@cumi.murugappa.com](mailto:prodorite@cumi.murugappa.com) ; web: [www.cumiceramics.com](http://www.cumiceramics.com)



**CHENNAI**  
Ph : 044 39813300  
Fax: 044 42187816

**DELHI**  
011-25726908  
011-25860132

**MUMBAI**  
022-22661018  
022-22662289

**KOLKATA**  
033-30238067  
033-30249673

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