

AMEETUFF®

**TDS 253 ATPI FX -23-24(23 G)
ISO 9001:2015**

ISO 14001:2015

TECHNICAL DATA SHEET

Fire Resistant Ceramic Thermal Insulation coating –ARC 253

STEEL MASTER WX702

TECHNICAL SPECIFICATION of Ameetuff water based fire resistant Ceramic thermal insulation coating WX702

FIRE PROTECTION of Steel structure, GI Pipe/Ducts, stair case, steel structure parking's, doors etc. with thick layer of Ameetuff Intumescent Fire resistant ceramic thermal insulation coating

PRODUCT DESCRIPTION

Fire proofing with water based Intumescent thick layer fire resistant ceramic thermal insulation coating is the most modern & internationally accepted method for protection of Steel and its structures from damaging effect of fire. As in case of fire steel structure starts losing its strength and ultimately building, multi-level str. steel parking, steel stair case etc. collapse, hence it is highly recommended to use fire resistant structure steel coating on all type of steel structures, it also give sufficient time for safely move out of building in case of Fire.

In the event of fire the decorative Ameetuff fire resistant water based coating quickly encloses the steel in reliable carbon foam, which slows down the temperature rise in steel and protects the construction against premature collapse up to three hours (depend upon coating thickness). This coating is water based environment friendly low voc, waterproof, recommended for primer coated steel sheets, steel tubes, str. Steel parking, roof, ducts, stairs, oil pipe line etc. You can also use it for boats & ships.

WHY FIRE PROOFING OF STEEL?

WINNING TIME IS CRITICAL -Steel loses its structural strength upon heating. As soon as the Steel temperature approaches 550°C (900° F) it loses 65% of its yield strength and may lead to its collapse. In the event of fire winning time is crucial to evacuating people and limiting the amount of structural damage. Thus it is necessary to protect Steel from fire. As Per, BS 476 part 20,21,22 ASTM E 119, UL 263

conclusively proven the fact that Intumescent Coats of Steel Fire Proofing. The most important resistance properties





FUNCTIONAL

In the event of fire, the Intumescent coating produces a residue which is puffed by escaping gases. It produces tough insulating foam which will protect material over which it is formed. Such type of coating is called an Intumescent coating.

FIRE PROTECTION OF STEEL WITH Ameetuff Fire resistant ceramic thermal insulation coating

- Ameetuff St. is a smooth, thin, easy to apply coating, which replaces the traditional labor intensive vermiculite cement or board enclosing methods.
- Ameetuff St. is an Intumescent (it swells when heated) Ameetuff St that protects structural steel work from fire.
- The ability of Ameetuff St to retard the rate of heat transfer results from the chemical characteristics of its constituents.
- Ameetuff FR St. coating, at a temperature of more than 250°C, they undergo a series of reactions that create an expanded low density foam structure, with excellent heat insulating properties.

This carbon foam creates a barrier between the fire and steel surface, which substantially decreases the temperature rise of the metal, effectively protecting it during the fire.

ARC 253 has an intumescent property that provides an excellent insulation barrier to fire conditions as per ISO 834 Fire curve, It is tested and conforms to the requirement of BS 476 Part 6 & 7, BS 476 Part 20-21 to analyze stability, integrity, load-bearing capacity, and insulation performance criteria for 120 minutes under load conditions

SYSTEM OFFERED –

- Step -1 Clean steel surface, by sand blasting or Ameetuff surface preparation chemical
- Step -2 Apply One coat of Ameetuff Fire resistant Primer ARC 250 PR.
- Step -3 Apply Two or more coats of single pack water based intumescent coating, coating thickness and number of coats depend upon time of fire resistance required

Although thickness of coating is to achieve the desired duration of fire resistance, roughly this much material required, which is adequate to achieve the desired fire rating under normal class A fire conditions at for steel structures: , After completing fire coat Apply one coat ARC 250 CM or ARC 256, Anti carbonation, fire resistant Top coat

Physical and Chemical properties—

Type	Single Pack system	
Composition	Suitable pigmented catalyzed F.R resin	
Mixing Ratio	Single pack	
Pot Life	4 to 6 hours	
Application	Brush, rollers, Dip, airless or conventional spray	
Recommended DFT	400-500 microns per coat	IS 101
Corresponding WFT	500-550 microns per coat	
Theoretical Spreading Rate	2 sq.mtr/kg (approx.)	IS101 (P8/S6):1993(RA 2009)
Drying Time	Touch 2-3hrs., Handle-6-8 hrs. Hard - Over Night	IS 101
Over coating Interval	Min-Overnight / Max - 5 days	IS: 101
Color	Grey /off white	IS: 101 (PART4-SEC2):1989 (RA 1999)
Solubility	Water (top coat)	
Specific Gravity at 25°C	1.32	
Reaction Point	250 °C	
Solid Contents	75% to 85%	
Hardness Test	After 72 hrs.	
Dispensability (Erichsem)	8 m.m.	
Freezing Point	2°C	
Effect on skin	Nil	
Packing	25 kg.	
Finish	Glossy/Matt	

STORAGE LIFE- 9 -12 MONTHS

Up to 9-12 months as long as the sealed containers are kept under cover in a dry place under normal temperature conditions.

USES

Recommended as F.R coating for chemical and industrial environment in fertilizers, paper and pulp, food and pharmaceutical units, Institutions, factory structures etc.

APPLICATION PROCESS -Already Painted or Primer Done surface apply Directly

- ❖ **On New Surface** ===Step -1 Clean steel surface , by sand blasting or Ameetuff surface preparation chemical
- ❖ Step -2 Apply One coat of Ameetuff Fire resistant Primer ARC 250 PR.
- ❖ Step -3 Apply Two or more coats of single pack water based intumescent coating , coating thickness and number of coats depend upon time of fire resistance required
- ❖ **Brush / Roller/ Spray Gun** : Apply without thinning. If required during application add maximum upto 5% Water In ARC 253 .

CONVENTIONAL -

- ❖ **Spray:** Depending on conditions dilute by adding 5% water, Use any standard equipment at an atomizing pressure of 3.5 - 4.2 kg/cm².
 - ❖ **Airless Spray: Preferable** apply without thinning. If conditions dilute by adding 5% water. Use any standard equipment at an atomizing pressure of 3.5 - 4.2 kg/cm²
 - ❖ **Tip Size:** 0.33 - 0.38 mm, Tip Pressure - 110 - 140 Kg/cm².
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NOTES -

1. The mixed F.R coating (base coat) should be used within the stipulated pot life period.
 2. Don't apply when temperature falls below 10°C or rises above 50°C and when relative humidity rises above 90%. Do not apply during rain, fog or mist.
 3. To avoid any undue damage to the Spray equipment's clean them with F.R thinner and water
 4. No Inflammable activity should be carried out when base coat application is under process.
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