

AMEETUFF®

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TDS 161 ARC FX -23-24 (24 G)
ISO 9001:2015
ISO 14001:2015
ARC 254

TECHNICAL DATA SHEET

Fire Resistant Silicon Epoxy Ceramic Thermal Insulation coating –ARC 254 (Two Pack)

STEEL MASTER SX 704

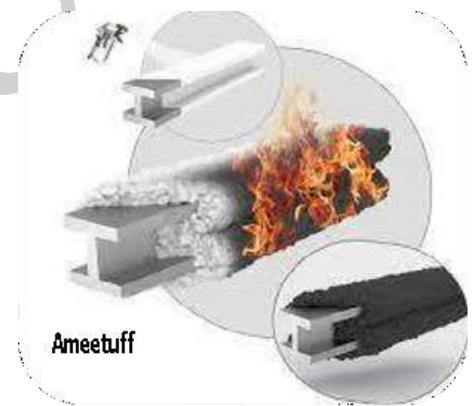
TECHNICAL SPECIFICATION of Ameetuff silicon epoxy based Fire Resistant ceramic thermal insulation coating.

FIRE PROTECTION of Steel Structure, Ducts, stair case, STR. Steel parking's, doors etc. with thin layer of -- Ameetuff Fire Resistant Str. Steel Silicon Epoxy Ceramic based intumescent coating.

PRODUCT DESCRIPTION

Fire proofing with silicon Epoxy 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 Ameetuff fire resistant ceramic thermal insulation coating quickly encloses the steel in reliable foam, which slows down the temperature rise in steel and protects the construction against premature collapse up to three hours. This coating is solvent based recommended even for steel sheets, str steel parking, roof, ducts, stairs, oil pipe line etc. you can also use it for boats & ships. This coating is good anti-corrosive and with additional anti- bacterial and anti-fungal properties.



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

Studies in Europe and U.S.A over the last two decades have conclusively proven the fact that Intumescent Paints have definite advantages over the conventional methods of Steel Fire Proofing. The most important of all the considerations is a very high degree of corrosion resistance properties

FUNCTION OF INTUMESCENT COATINGS

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 is a smooth, thin, easy to apply coating, which replaces the traditional labor intensive vermiculite cement or board enclosing methods.
- Ameetuff 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.

SYSTEM OFFERED

Step -1 Clean steel surface, by sand blasting or Ameetuff surface preparation chemical

Step -2 Apply fire resistant Silicon epoxy solvent based intumescent two pack system in regular 4-6 hr duration, number of coats depend upon required fire resistance time. 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 , Minimum 2 coats material required for two hour fire rating , approx.

Physical and Chemical properties—

Type	Two / Single Pack system Top coat	
Composition	Suitable pigmented catalyzed F.R resin	
Mixing Ratio	Base:catalyst:6:1 by volume	
Pot Life	4 to 6 hours	
Application	Brush, rollers, Dip, airless or conventional spray	
Recommended DFT	500-600 microns per coat	IS: 101
Corresponding WFT	Corresponding WFT	
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
Curing Time	6-7 Days	ASTM D 1640
Over coating Interval	Min-Overnight / Max - 5 days	IS: 101
Flash Point	Above 22°C	
Color	Grey /off white	IS: 101 (PART4SEC2):1989(RA 1999)
Solubility	Soluble in high boiled aromatic solvent	
Specific Gravity at 25°C	1.42	
Reaction Point	250 °C	
Solid Contents	65% to 75%	
Hardness Test	After 72 hrs.	
Distensibility (Ericlisem)	8 m.m.	
Freezing Point	2°C	

Effect on skin	Nil	
Packing	35 kg.(30+5)	
Thinner/Cleaner	F.R Thinner/Cleaner	
Finish	Glossy/Matt	

STORAGE LIFE- 9 -12 MONTHS

Up to 6-8 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.

APPLICATION PROCESS

- ❖ **Single pack** - Direct use
- ❖ **Two pack basecoat** - **Stir** the base thoroughly; Mix 6 parts of base and 1 part of catalyst by volume to uniform consistency. Let the mixture mature for 10 minutes. Stir it again before and during application.
- ❖ **Brush / Roller:** Apply without thinning. If required during application add maximum up to 5% F.R thinner.

CONVENTIONAL

- ❖ **Spray:** Depending on conditions dilute by adding 10% F.R Thinner, 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 10% F.R Thinner. 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.

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.
4. No Inflammable activity should be carried out when application is under process.

FOR MORE DETAILS: -

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