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DuPont Powder Coatings

Data Sheet

Flamulit® HTC 254 HF

A DuPont thermoplastic powder coating

Product description

Thermoplastic **Flamulit® HTC 254 HF** is a polyolefin based coating powder with adhesion promoter. It has good scratch resistance, hardness and chemical resistance.

Typical applications

Coating of metal parts where good adhesion and good chemical resistance are required. **Flamulit® HTC 254 HF** is adapted for inside coating of fire extinguishers lining. It can also be applied for containers, pipes, …

Typical coating conditions

Pre-treatment (recommendations) :

Alkaline degreasing [phosphatation and passivation if required]. Minimum treatment would be degreasing with vapour phase chlorinated solvents. For increased mechanical adhesion, we recommend sand blasting.

Primer: Not required

Hot flocking procedure (e.g. for fire extinguishers):

- preheat the substrate up to 180-250°C depending on metal thickness.
- Spray the powder with device connected to negative voltage [approx. 20 kV or less]. A weak airflow ensures efficient powder dispersion. To obtain a thick coating we recommended to reduce the voltage down towards zero

External thermosetting coating (fire extinguishers)

This coating is applied subsequently. Curing conditions for the external layer depend on the type of product.

For more informations, see DuPont guidelines for Metal Coating procedures.

Results

Smooth appearance coating.
Coating thickness: 200-500 µm.

Characteristics

General properties	Unit	Test method	Value / Result
MFI (190°C/2.16kg)	g/10min	ASTM D 1238	38
Particle size	µm	Alpine	< 250
Brittle point	°C	ASTM D 746	<10
Softening temperature (Vicat)	°C	ASTM D 1525	77
Elongation at break	%	ASTM D 638	200
Coating properties			
Maximum working temperature	°C		60
UV stability	>2000 hrs UVA at 60°C		without significant damage
	>2000 hrs UVB 8h/60°C, 4h/50°C		slight gloss reduction
Specific gravity of the coating	g/cm3	ASTM D 792	0.92 to 0.94
Salt spray		ASTM B 117 scribed	Corrosion 17 mm after 1000 h
		unscribed	> 2000 hrs without damage
Hardness Shore D		ASTM D 2240	48
Adhesion : squaring		AFNOR T 30-038	no stripping
separation of the tongue		AFNOR T 58-112	no stripping
Electric strength	kV/mm	CEI 243-1	70
Erichsen static stamping	Mm	ISO 1520	8
Chemical resistance			
Environmental stress cracking	Hrs	ASTM D 1693	good
Dilute acids	Very good (except acetic acid)		
Dilute alkalis	Good		
Solvents	Poor		
Mineral salt solutions	Good		

Edition of April 01, subject to modifications

For Safety, Health, storage and handling recommendations as well as the disclaimer information, see the DuPont Metal Coating general guideline.