DuPont Powder Coatings

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Data Sheet

Flamulit ® HTC 254 UV

A DuPont thermoplastic powder coating

Product

Flamulit® HTC 254 UV is a polyolefin based coating powder developed to give coatings characterised by excellent adhesion, even without primer, good scratch resistance and hardness. This product is recommended where excellent mechanical properties are required. It is applied by fluidised bed.

Typical applications

Coating of metal parts having a smooth appearance. The **Flamulit® HTC 254 UV** contains a UV stabilising agent, it can be used for outdoor applications where long term weather resistance is necessary, such as signs, garden tools, garden wire work, fencing, etc.

Typical coating conditions

Recommended pre-treatment :
Alkaline degreasing followed by phosphatation and passivation. As a minimum, degreasing with vapour phase chlorinated solvents. For increased mechanical adhesion, we recommend that parts be sand blasted.
Procedure for fluidised bed:

- preheat 270-360°C according to metal thickness
- immerse 3 to 6 seconds in fluidiSed bed
- auto-smoothing (cooled in ambient air)

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

Results

Smooth appearance coating.
Coating thickness :

- 350-600 µm (i.e. 350-600 g/m^2)

Characteristics

General properties	Units	Methods	Values
MFI (190°C/2.16kg)	g/10min	ASTM D 1238	36
Particle size	µm	Alpine	below 280
Brittle point	°C	ASTM D 746	-10
Softening temperature (Vicat)	°C	ASTM D 1525	77
Elongation at break	%	ASTM D 638	100
Coating properties			
Maximum working temperature	°C		60
UV stability	> 80% retained gloss after 2000 hrs UV		(varies according to colour)
Specific gravity of the coating	g/cm^3	ASTM D 792	0.91 to 0.94
Salt spray		ASTM B 117 scribed	corrrosion 3mm from scribe
		unscribed	> 2000 hrs
Hardness Shore D		ASTM D 2240	48
Adhesion : squaring		AFNOR T 30-038	no stripping
Tongue separation		AFNOR T 58-112	no stripping
Electric strength	kV/mm	CEI 243-1	60
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.