DuPont Powder Coatings

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Data Sheet

Flamulit® HTC 144

A DuPont thermoplastic powder coating

Product

Flamulit® HTC 144 is a polyolefin based powder which was specially developed for fluidised-bed coating. The decorative coatings have adhesion on sandblasted plates and act as protection against corrosion.

Typical application

Because of its favourable melt index, **Flamulit® HTC 144** particularly suitable for decorative and corrosion-protective coating of wire goods, metal furniture, shelving, shelf grids for refrigerators and freezers, etc.

Flamulit® HTC 144 White meets the requirements of BGA (Federal German Office of Health) recommendation III and of the German Food and Consumer Articles (LMBG).

Typical coating conditions

Recommended pre-treatment :
Alkaline degreasing followed by phosphatation and passivation. For increased mechanical adhesion, sand blasting is recommended.
Procedure for fluidised bed for steel :

- preheat 230-360°C (substrate temperature)
- immerse 3 to 6 seconds according to metal thickness
- auto-smoothing (can be cooled in ambient air or cold water).

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

Results

Bright and icy appearance with coating thickness between 250 and 600 µm (i.e. 250-600 g/m^2), according to preheat temperature and dipping time).

Characteristics

General properties	Units	Methods	Values
MFI (190°C/2.16kg)	g/10min	ASTM D 1238	22
Particle size	µm	Alpine	below 250
Brittle point	°C	ASTM D 746	-40
Softening temperature (Vicat)	°C	ASTM D 1525	93
Elongation at break	%	ASTM D 638	100
Properties of the coating			
Maximum working temperature	°C		65
UV stability	> 2000 hrs UV-exposure without significant damage if stabilised		
Specific gravity of the coating	g/cm^3	ASTM D 792	0.91 to 0.94
Salt spray		ASTM B 117 scribed	not applicable
		unscribed	> 2000 hrs
Hardness Shore D		ASTM D 2240	47
Adhesion :			
squaring		AFNOR T 30-038	not applicable
separation of the tongue		AFNOR T 58-112	not applicable
Electric strength	kV/mm	CEI 243-1	30
Erichsen static stamping	mm	ISO 1520	8
Chemical resistance			
Environmental stress cracking	good		
Dilute acids	excellent		
Dilute alkalis	excellent		
Solvents	poor		
Mineral salt solutions	good		

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