



DuPont Powder Coatings

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Data Sheet

Flamulit® HTC 400 ES

A DuPont Thermoset powder coating

Product

Flamulit® HTC 400 ES is a highly reactive epoxy resin powder which was specially developed for electrostatic powder spray coating (EPS). This powder has excellent adhesion and thus very good resistance in salt spray environment.

Typical application

Flamulit® HTC 400 ES can be used in places where mechanical resistance as well as long service life in corrosive environments are required. This product has been specially formulated to meet the requirements for coating steel pipes by the three-coat process (Mapec).

Typical coating conditions

Contaminants, grease, rust, scale, etc. should be removed before coating. Thick-walled articles require roughening by blast cleaning with steel grit. If pickling of the surface is required, then wet treatment can be carried out.

The powder is sprayed by applying a negative direct-current potential from 40 to 100 kV to the powder particles and conveying the particles at a pressed air at a pressure of about 1 to 3 bar (keep conveying air pressure as low as possible). Stowing conditions: 180°C 15 minutes or 200°C 10 minutes.

Results

First layer of Mapec process with every good cathodic disbonding and adhesive features.
Thickness: 60-80 µm (i.e.: 85-115 g/m²)

Characteristics

Properties of the powder	Units	Methods	Values
Density	g/cm ³	DIN 53479	1.48
Particle size	µm	DIN 53734	< 100
Gel time at 180°C	s	DIN 55990	25-45
Storage stability	maximum 6 months at 25°C		
Coating properties			
Gloss (angle 60°)	%	DIN 67530	above 80
Erichsen cupping test (film de 70 µm)	mm	DIN 53156	8 - 10
Buchholz hardness		DIN 53153	91 - 100
Impact resistance	Nm	ASTM-D 2794-69	> 10
Elasticity	%	ASTM-D 522-41	> 20
Cathodic disbonding	mm	ASTM-G 8.79	< 5

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