

# REAFREE® 6687

POWDER COATINGS / HYBRID

TECHNICAL DATA SHEET

## Product Application details

Saturated carboxylated polyester suitable for the formulation of decorative and protective thermosetting powders in combination with epoxy resins.  
Reactive type, with excellent flexibility.  
Low Tg resin.

## Performance Benefits

- Very good flow.
- High salt spray resistance.
- Excellent mechanical properties (OT bend formulations).
- Good recoatability.

## Polymer Type

- Saturated Carboxylated Polyester Resin

## Sales Specifications

Colour (50%), (ASTM D-1544)	3 max
Acid value, mg KOH/g (ASTM D-1639)	48 - 53
Viscosity 165°C, Pa.s (ICI – DIN 53229)	14 - 24

## Other Characteristics<sup>1</sup>

Appearance	Pale granules
Glass Transition T, °C (DSC - Tg)	approx 52

<sup>1</sup> The data provided for these properties are typical values, intended only as guides, and should not be construed as sales specifications

**Curing Conditions** 10 minutes at 180°C (oven temperature)

**Recommended Mixing Ratio** REAFREE 6687 / Epoxy : 60/40

### Starting Formulation

<b>REAFREE 6687</b>	363
Titanium Dioxide <sup>(1)</sup>	334
Epoxy resins <sup>(2)</sup>	263
REAFREE F3300-A15	37
Benzoin	3

(1) Kronos 2160

(2) Araldite GT-7004 (Huntsman) DER 663 UE (Dow Chemical)  
Epikote 3003 (Resolution)

### Application / Extrusion Conditions

Extruder:	BUSS PCS-30
Torque:	40%
Speed:	200 rpm
Extrusion temperature:	80°C
Spraying Gun:	GEMA PG 1-B
Application voltage:	60-80 Kv
Test substrate:	Degreased steel 1 mm

### Coating Properties

Film thickness	60-80 microns
Gloss 60°, (ASTM D-523-60E)	Over 94%
Cupping test, (DIN 53156)	Over 8 mm
Direct Impact, (ASTM D-2794)	Over 80 Kg.cm
Reverse Impact, (ASTM D-2794)	Over 80 Kg.cm
Conical mandrel, (ASTM D-522)	100%
Adhesion, (DIN 53151)	Gt0

## Formulation Guidelines

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**Product Safety**

Please refer to the corresponding Safety Data Sheet.

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**Delivery form**

Granules. White opaque polyethylene bags of 25 Kg. One Ton pallet shrink – wrapped.

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**Storage & Handling**

The resin in its original unopened bags is stable for more than three years, stored in a dry place at temperature below 30°C. Avoid direct sunlight.

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**Headquarter****ARKEMA FRANCE**

420 rue d'Estienne d'Orves  
92705 Colombes Cedex – France  
Tel : +33 (0)1 49 00 80 80

Arkema.com - arkemacoatingresins.com

**ARKEMA QUÍMICA, S.A.U.**

CTRA. OLZINELLES, S/N  
E08470 SANT CELONI (BCN) – ESPAÑA  
Tel: + 34 93 867 40 00