

## TECHNICAL DATA SHEET

# REAFREE® 4773

Powder Resins / Saturated Carboxylated Polyester / TGIC

### PRODUCT APPLICATION DETAILS

Saturated carboxylated polyester for combination with Triglycidylisocyanurate. Suitable for the formulation of outdoor durable and protective thermosetting powders for electrostatic application. High reactivity with good flexibility. TMA free type.

### SALES SPECIFICATIONS

	CHARACTERISTICS	METHODS
Acid value	30-36 mg KOH/g	ASTM D-1639
Viscosity (Cone and plate - 165°C)	15-25 Pa.s	DIN 53229
Color (50%)	2 max Gardner	ASTM D-1544

### OTHER CHARACTERISTICS<sup>1</sup>

	CHARACTERISTICS	METHODS
Appearance	Pale granules	
Glass transition temperature	approx. 61 °C	DSC

<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

17 minutes at 160°C (object temperature)

### RECOMMENDED MIXING RATIO

REAFREE® 4773 / TGIC: 93/7

### MARKET & APPLICATIONS

#### Coatings & Inks

- Industrial Coating
  - Metal Exterior - Powder

### PERFORMANCE BENEFITS

- Very good flow for a high reactive type.
- High gloss.
- Excellent outdoor durability.
- Reduced blooming at low temperature curing.
-

# REAFREE® 4773

## FORMULATION GUIDELINES

STARTING FORMULATION	
REAFREE® 4773	595
Titanium Dioxide <sup>(1)</sup>	320
Triglycidylisocyanurate <sup>(2)</sup>	45
REAFREE® F3300-A15	37
Benzoin	3

<sup>(1)</sup> Kronos® 2160

<sup>(2)</sup> Araldite® PT-810 (Huntsman) / Tpic (Nissan Chemical)

## APPLICATION / EXTRUSION CONDITIONS

CHARACTERISTICS	
Extruder	BUSS PCS-30
Spraying gun	GEMA PG 1-B
Torque	40 %
Extrusion speed	200 rpm
Extrusion temperature	80 °C
Application voltage	60-80 kV
Test substrate (Degreased steel)	1 mm

## COATING PROPERTIES

	CHARACTERISTICS	METHODS
Film thickness	60-80 microns	
Gloss (60°)	Over 90 %	ASTM D-523-60E
Cupping test	Over 8 mm	DIN 53156
Direct impact	Over 80 kg.cm	ASTM D-2794
Reverse impact	Over 80 kg.cm	ASTM D-2794
Conical mandrel	100 %	ASTM D-522
Adhesion	Gt0	DIN 53151

## PRODUCT SAFETY

Please refer to the corresponding Safety Data Sheet.

## DELIVERY FORM

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

## STORAGE AND 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.

**Arkema Coating Resins**  
410 Gregson Dr.  
Cary, NC 27511 – USA  
T +1 919 469 6700

**Arkema Química, S.A.U.**  
Ctra. Olzinelles, s/n  
E-08470 Sant Celoni (BCN)  
Spain  
T +34 938 674 000

**Arkema Chemical India Private Ltd.**  
D-43, Trans Thane Creek  
MIDC Industrial Area  
400706 Mumbai - India  
T +91 22 67377122

**Headquarters: Arkema France**  
51, Esplanade du Général de Gaulle  
92800 Puteaux – France  
T +33 (0)1 49 00 80 80

Disclaimer - Please consult Arkema's disclaimer regarding the use of Arkema's products on <https://www.arkema.com/global/en/products/product-safety/disclaimer/> which is incorporated herein by reference and made a part hereof.

Arkema France, a French société anonyme registered at the Trade and Companies Register of Nanterre under the number 319 632 790

[arkema.com](http://arkema.com)

**ARKEMA**