

TECHNICAL DATA SHEET

REAFREE® 6604

Powder Resins / Saturated Carboxylated Polyester / Epoxy

PRODUCT APPLICATION DETAILS

Saturated carboxylated polyester suitable for the formulation of decorative and protective thermosetting powders in combination with epoxy resins. Medium reactivity type.

SALES SPECIFICATIONS

| | CHARACTERISTICS | METHODS |
|------------------------------------|-----------------|-------------|
| Acid value | 51-56 mg KOH/g | ASTM D-1639 |
| Viscosity (Cone and plate - 165°C) | 14-20 Pa.s | DIN 53229 |
| Color (50%) | 3 max Gardner | ASTM D-1544 |

OTHER CHARACTERISTICS¹

| | CHARACTERISTICS | METHODS |
|--|-----------------|---------|
| Appearance | Pale granules | |
| Glass transition temperature (T _g) | approx 54 °C | DSC |

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

CURING CONDITIONS

15 minutes at 180°C (object temperature)

RECOMMENDED MIXING RATIO

REAFREE® 6604 / Epoxy: 60/40

MARKET

Coatings & Inks

- Industrial Coating
 - Appliance
 - Automotive - OEM
 - General Industry
 - Metal Interior - Powder

PERFORMANCE BENEFITS

- Very good flow.
- High salt spray resistance.
- Good mechanical properties.
- Good recoatability.

REAFREE® 6604

FORMULATION GUIDELINES

| STARTING FORMULATION | |
|---------------------------------|-----|
| REAFREE® 6604 | 363 |
| Titanium Dioxide ⁽¹⁾ | 334 |
| Epoxy resins ⁽²⁾ | 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

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

COATING PROPERTIES

| | CHARACTERISTICS | METHODS |
|-----------------|-----------------|-------------|
| Film thickness | 60-80 microns | |
| Gloss (60°) | Over 94 % | |
| 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**
420, rue d'Estienne d'Orves
92705 Colombes Cedex
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

ARKEMA