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TECHNICAL DATA SHEET

Silmer® ACR Di-1018-F
Silicone Acrylate Pre-polymer

DESCRIPTION

Silmer® ACR Di-1018-F is a 100% active cross-linkable silicone acrylate pre-polymer. It is used as an additive in UV/EB curing systems to improve the surface and physical properties of various polymers.

TYPICAL PROPERTIES

| | |
|-------------------------------|----------------------|
| Appearance | Clear to hazy liquid |
| Colour, Gardner | 2 |
| Viscosity @ 25°C | 600 |
| Active Content % | 100 |
| Water solubility @ 1% and 10% | Dispersible |
| Molecular Weight | 3,000 |
| Equivalent Weight | 500 |

APPLICATION & USES

Silmer ACR Di-1018-F can be used in various energy cured polymers that are used for coatings, plastics, 3D printing, resins and other applications to improve the surface and physical properties of the polymer. By incorporating a silicone moiety into the polymer structure, many benefits are achieved including improved flexibility, tensile strength, slip, anti-blocking, mar/scratch resistance, surface smoothness and release. Siltech.com has many papers which demonstrate the use of **Silmer** Reactive silicones to do this.

The acrylate functionality in **Silmer ACR Di-1018-F** gives a permanent binding into the matrix of the polymers and prevents the silicone from migrating to the surface. The organic component brings solubility and miscibility with an organic resin.

As an additive in UV/EB curing system, the recommended amount ranges from 0.2-2.0%. For modification of resin properties, maximum benefits in strength are seen around 20% incorporation while properties like flexibility and impact resistance increase with higher use levels. A ladder study is advisable for individual applications.

SHELF LIFE

When stored in the original, unopened containers between 10 and 40°C, **Silmer ACR Di-1018-F** has a shelf life of 24 months from date of manufacture.

PACKAGING

Silmer ACR Di-1018-F is supplied in 20kg pails and 200kg drums.

LEGAL DISCLAIMER

Siltech Corporation believes that the information in this technical data sheet is an accurate description of the typical uses of the product. Siltech Corporation, however, disclaims any liability for incidental or consequential damages, which may result from the use of the product that are beyond its control. Therefore, it is the user's responsibility to thoroughly test the product in their particular application to determine its performance, efficacy and safety. Nothing contained herein is to be considered as permission or a recommendation to infringe any patent or any other intellectual property right.

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