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TECHNICAL DATA SHEET

Silmer® ACR Di-100 TF
Silicone Acrylate Functional Pre-polymer

DESCRIPTION

Silmer® ACR Di-100 TF is a 100% active high molecular weight silicone acrylate fluid. It is used to give permanent slip and mar resistance to UV-curable coatings systems. It is also used to modify acrylate polymers to improve its surface and physical properties.

TYPICAL PROPERTIES

| | |
|------------------------------|-------------------------------|
| Appearance | Clear to slightly hazy liquid |
| Colour, Gardner | 1 |
| Viscosity at 25°C, cps | 900 |
| Active Content % | 100 |
| Water Solubility (1 % & 10%) | Insoluble |
| IPA Solubility (1% & 10%) | Soluble |
| Xylene Solubility (1% & 10%) | Soluble |
| Specific Gravity (25°C) | 0.98 |
| Molecular Weight | 7,800 |
| Equivalent Weight | 3,900 |

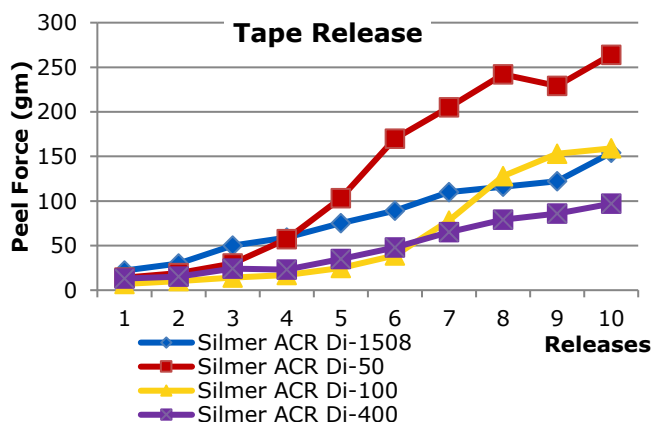
APPLICATION & USES

Silmer ACR Di-100 TF can be co-reacted into acrylate polymers and UV cured systems for coatings, plastics, resins and other applications to incorporate a silicone moiety into the polymer structure. When co-reacted during the polymerization stage, **Silmer ACR Di-100 TF** improves the surface and physical properties of the polymers. These benefits include improved slip, antiblocking, mar resistance, surface smoothness, flexibility and hydrophobicity. The acrylate functionality in **Silmer ACR Di-100 TF** gives a permanent binding into the matrix of the polymers.

The typical recommended amount of **Silmer ACR Di-100 TF** ranges from 2.0-5.0%. As an additive in UV curing system, the recommended amount ranges from 0.1-2.0%.

Applications Data

A proprietary acrylate functional UV cured coating was evaluated with 1.5% of four Silmer ACR products to show their relative release strengths. The coatings were cured and evaluated for peel force for multiple applications of packing tape. The results are shown at right. Based on this **Silmer ACR Di-100 TF** is expected to provide good tape release.



SHELF LIFE

When stored in the original, unopened containers between 10 and 40°C, **Silmer ACR Di-100 TF** has a shelf life of 24 months from date of manufacture.

PACKAGING

Silmer ACR Di-100 TF 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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