

SiSiB® SAR140 Anti-Graffiti Silicone Acrylic Resin

INTRODUCTION

SiSiB® SAR140 is a silicone-modified hydroxyl acrylic resin designed for solvent-based easy-to-clean and anti-graffiti coating systems. The resin combines the durability and compatibility of hydroxyl acrylic resins with the low surface energy characteristics of silicone technology, providing excellent slip, hydrophobicity, stain resistance and easy-cleaning performance.

It can be used as the primary binder in two-component polyurethane or baking coating systems, or as a performance additive in clearcoat formulations to improve anti-fingerprint and surface protection properties.

EFFECTS

- Improves slip and surface smoothness
- Enhances hydrophobic properties
- Provides excellent easy-cleaning and anti-marker performance
- Delivers lotus-effect surface characteristics
- Excellent compatibility with solvent-based coating systems
- Better durability and solvent wipe resistance
- Water contact angle can exceed 100°
- Can provide anti-fingerprint performance at appropriate dosage

PHYSICAL PROPERTIES

Appearance	Clear liquid
Color	Slight yellowish to yellow
Solvent	BAC / PMA
Solid Content, %	47-53
Density (25°C, g/cm ³)	0.98-1.02
Viscosity (mPa·s, 25°C)	100-1,000
Hydroxyl value (mg, KOH/g)	115-125

These values are typical and not intended for use as specifications.

APPLICATIONS

SiSiB® SAR140 is suitable for solvent-based clearcoats, anti-graffiti coatings, industrial coatings, appliance coatings and easy-cleaning surface protection systems. It is particularly suitable for PU clearcoats and baking coating systems requiring high surface slip, stain resistance and durable easy-cleaning performance.

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USAGE GUIDELINES

1. PU Clearcoat Guide Formulation

Part A:	wt%
SiSiB® SAR140	76.0
PMA	22.45
Catalyst (1%)	1.0
Leveling Agent	0.25
Defoamer	0.3
Total	100

Part B: Curing Agent	wt%
Covestro N3390	18

- N3390 has an NCO content of approximately 19.6%.
- After Part A and Part B are mixed, the coating should be used within 5–7 hours to avoid gelation.
- If used for automotive protective film, curing at 100-130°C for 2-3 minutes, cool and wind up, then continue aging at 60-80°C. With higher temperature and longer time, there will be better effect. Note: The stain resistance and chemical resistance depend on whether the coating is fully crosslinked. It is an effective method to place the surface-treated film into an aging oven for aging. The aging time should be at least 24 hours, and the effect is even better if it can reach more than 48 hours.
- If used for normal application, for better easy-cleaning performance, thermal curing at 80°C for 1 hour or 150°C for 5 minutes is recommended.

2. Baking Coating Guide Formulation

Component	wt%
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SiSiB® SAR140	50.0
Amino Resin	10.0
Solvent	38.5
Adhesion Promoter	1.0
Acid Catalyst	0.5
Total	100

- Recommended baking conditions:
150°C for 30 minutes or 210°C for 90 seconds.

3. Use as Additive

SiSiB® SAR140 can also be used as a functional additive in polyester-amino or PU clearcoat systems. A recommended addition level of 3–5% can improve anti-fingerprint performance, surface slip and easy-cleaning properties.

PACKING

SiSiB® SAR140 is available in 25Kg pail or 180Kg drum.

HANDLING

This document does not contain the product safety information required for safe use. Before handling, please refer to the product and safety data sheets, as well as container labels, for information on safe usage, physical hazards, and health risks. Safety Data Sheet is available on the website, from the distributor, or by contacting SiSiB customer service.

STORAGE

SiSiB® SAR140 has a shelf life of 36 months from the date of manufacture when stored in its original, unopened containers. Products that exceed the storage period can continue to be used after passing the inspection. It must be closed immediately after use.

NOTE

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

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