



## Technical Data Sheet

### DOWSIL™ 3055 Resin

A reactive amine functional silicone blending resin used as a crosslinker to improve the physical properties and long-term performance of paints and coatings.

#### Features & Benefits

- Primary amine functionality
- Low VOC, liquid resin
- Good compatibility with organic resins
- Reduces the water uptake and improves initial gloss, flexibility, thermal and acid resistance, and weatherability of epoxy coatings

#### Composition

- Phenyl, methyl silicone, amine functional

#### Applications

- Modification of industrial maintenance coatings based on epoxy, urethane, carboxy functional polyesters or acrylate resins.

#### Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Test <sup>1</sup>	Property	Unit	Result
CTM 0001A	Specific Gravity at 25°C (77°F)		1.11–1.13
CTM 0004	Viscosity at 25°C (77°F)	cSt	2500–5000
CTM 0927I	Amine Equivalent Weight	grams/NH	250–270
	Actives	wt%	> 97
	Appearance		Clear, water-white to light straw

1. CTMs (Corporate Test Methods) correspond to ASTM (American Society for Testing and Materials) standard tests in most instances. Copies of CTM procedures are available upon request.

#### Description

DOWSIL™ 3055 Resin is an amine functional, solventless liquid silicone resin. It chemically reacts with organic resins that contain epoxide, carboxy, isocyanate or acrylate groups to form silicone-organic copolymers.

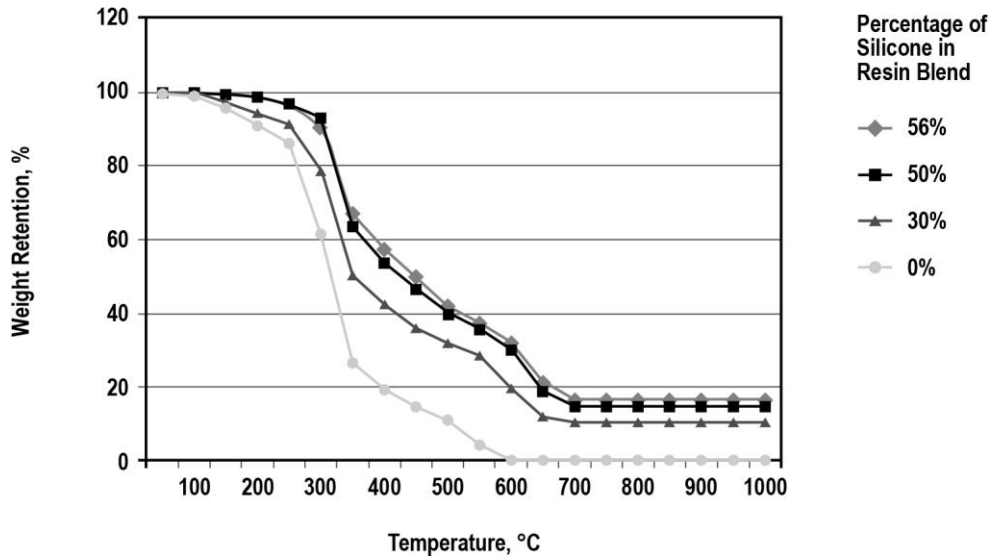
## How To Use

DOWSIL 3055 Resin can be used alone, or in combination with aliphatic amine crosslinkers to provide the benefits of polysiloxane chemistry to a variety of coatings. Particular emphasis has been given to epoxy resin systems.

Improved acid resistance is generally observed in Bis-A, Bis-F, Novolac and cycloaliphatic epoxies with the inclusion of DOWSIL 3055 Resin (at 24% of resin binder).

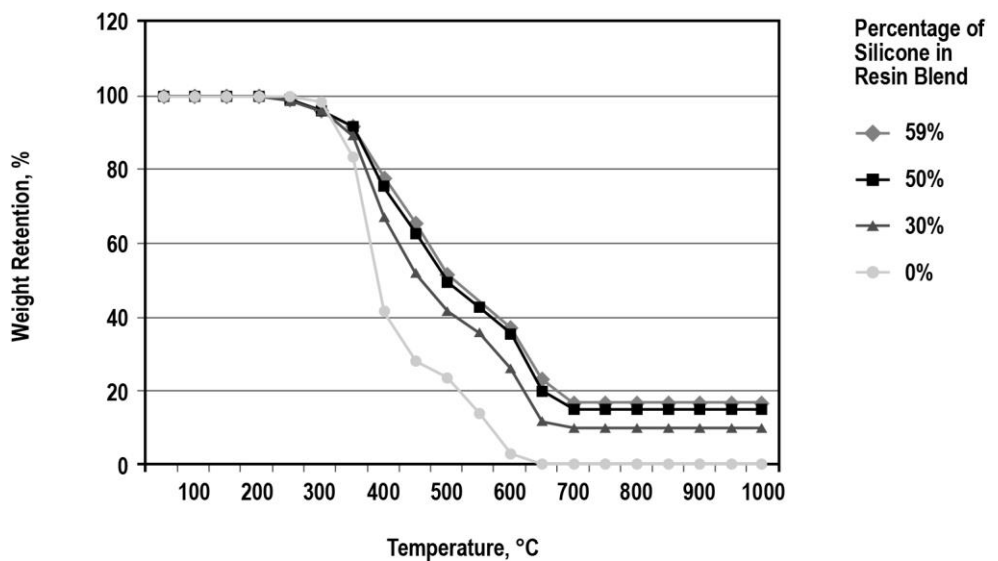
Wet adhesion and mandrel flexibility for Bis-A and Bis-F epoxies is improved with addition levels of DOWSIL 3055 Resin as low as six percent.

Graphs One and Two show the improved thermal stability of Bis-A and cycloaliphatic epoxies as measured by thermogravimetric analysis (TGA).



**Graph 1:**

Thermal Stability with a Cycloaliphatic Epoxy



**Graph 2:**

Thermal Stability with a BPA Epoxy

**Handling  
Precautions**

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT WWW.CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

**Caution**

Direct contact with DOWSIL 3055 Resin may cause eye and skin irritation.

**Attention**

This container will have vapor and/or product residues when emptied. Observe all hazard precautions on the label when handling an emptied container.

DO NOT CUT OR WELD THE CONTAINER. DO NOT REUSE THE CONTAINER.

**Usable Life And  
Storage**

When stored in original, unopened containers at or below 25°C (77°F), DOWSIL 3055 Resin has a shelf life of 24 months from date of manufacture. Opened containers should be tightly closed after use to prevent contaminants and water vapor from entering the product.

**Packaging  
Information**

DOWSIL 3055 Resin is available in 1 and 500 lb (0.45 and 227 kg) containers, net weight.

**Shipping  
Limitations**

DOT Classification: Noncombustible.

**Toxicological  
Information**

Animal studies indicate that DOWSIL 3055 Resin may cause skin irritation, especially if the affected skin is abraded.

Precautions should be taken to avoid skin and eye contact. In case of skin contact, flush skin with plenty of water. In case of eye contact, prompt flushing of the contaminated eye with water may reduce or prevent irritation from developing.

**Limitations**

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

**Health And  
Environmental  
Information**

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, [www.consumer.dow.com](http://www.consumer.dow.com) or consult your local Dow representative.

<http://www.consumer.dow.com>

**LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY**

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

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Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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