



## Technical Data Sheet

### DOWSIL™ AY 42-119 Silicone Resin

Epoxy functional silicone resin for thermoset/ thermoplastic additive

#### Features & Benefits

- White powder silicone resin
- Epoxy functionality
- Soluble in various solvents, but insoluble after curing
- Can work as flame retardant
- Control metal contamination

#### Composition

- Epoxy functional silicone resin

#### Applications

- Additives for thermoset resin
- Additives for thermoplastic resin

#### Typical Properties

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

Property	Unit	Result
Appearance		White powder
Epoxy content	g/mol	1150–2150
Volatiles	%	Less than 1.5

#### Description

DOWSIL™ AY 42-119 Silicone Resin is an epoxy functional silicone resin in powder form which can be used as an additive for thermoset/ thermoplastic composites. It can reduce shrinkage/ distortion caused by heat cycle, and it can impart flame retardancy to such composites. The white powder resin can be soluble in various solvent such as toluene, 2-butanone, DMSO, but it turns to insoluble after cured with hardener such as dicyandiamide.

**Table 1:** Solubility of DOWSIL™ AY 42-119 Silicone Resin and cured DOWSIL™ AY 42-119 Silicone Resin in various solvent.

Solubility		N,N-dimethyl formamide (DMF)	Toluene	2-butanone (MEK)	2-methoxy- ethanol	Dimethyl- sulfoxide (DMSO)	γ-butyl lactone	2-propanol (IPA)
DOWSIL™ AY 42-119 Silicone Resin	20%	C	C	C	C	C	C	I
Cured with dicyan- diamide	1%	C	I	I	I	I	I	I
	5%	P	I	I	I	I	I	I
	20%	P	I	I	I	I	I	I

C: Clear solution, I: Insoluble, P: partially soluble

## 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 DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

## 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, [dow.com](http://dow.com) or consult your local Dow representative.

## Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

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