



## Silfluo LR-S161

Self-drying Silicone Resin

### Description

Silfluo LR-S161 is an ambient-curing silicone resin produced by copolymerization of methyl, phenyl, and functional silane monomers, supplied as a 50% solids solution. The resin crosslinks at room temperature without oven baking, and achieves full cure in 1 hour at 180°C when accelerated cure is applied.

The methyl phenyl siloxane backbone provides continuous heat resistance, surface hardness, corrosion resistance, and gloss retention in the cured film. When formulated with leafing aluminum powder at a 4:1 resin-to-pigment ratio, the cured coating withstands 500 ± 10°C for 3 hours without peeling, cracking, or blistering.

### Typical Technical Properties:

Silfluo Code:	LR-S161
Chemical Name: Synonyms:	Ambient-Curing Methyl Phenyl Silicone Resin Air-Drying Silicone Resin, Room Temperature Vulcanizing Siloxane Binder
Appearance	Colorless to light yellow transparent liquid, opalescence is permitted
Solid content %	50± 1
Viscosity (4# cup, 25°C, S)	30-150
Drying time, ≤	Surface dry in ≤ 2 hours at ambient temperature; fully cured in 1 hour at 180°C (if forced thermal curing is applied)
Heat Resistance (Varnish mixed with leafing aluminum powder at a 4:1 ratio, exposed to 500±10°C for 3 hours):	Excellent stability with absolutely no peeling, cracking, or blistering

### Application

#### 1. Industrial Infrastructure Coatings

Used as the binder resin for heat-resistant and anticorrosive coatings applied to chemical reactors, boilers, storage tanks, smokestacks, and other large industrial equipment that cannot be processed in baking ovens due to size or installation constraints. Ambient cure with surface dry in ≤2 hours allows application and return to service without oven processing. Formulate with leafing aluminum powder at 4:1 resin-to-pigment ratio by weight for coatings requiring resistance to 500°C peak temperatures.

#### 2. Aluminum and Color Maintenance Finishes

Used as a binder for field-applied maintenance paints on metal structures and equipment requiring a hard, glossy, weather-resistant protective film with heat resistance. Ambient cure is compatible with in-situ application on installed equipment during maintenance intervals.

Nanjing Silfluo New Material Co., Ltd.

1 / 2

Web: [www.silfluosilicone.com](http://www.silfluosilicone.com) Email: [inquiry@silfluo.com](mailto:inquiry@silfluo.com)

The offered information of this docs 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 fully satisfactory for end use. Suggestions of use shall not be taken as inducements to infringe any patent. Please confirm with us prior to any problems.

# Technical Data Sheet



[www.silfluosilicone.com](http://www.silfluosilicone.com)

## Use Reference

1. Diluent Purity: Any diluents or solvents introduced must be anhydrous and free of acids, alkalis, amines, or other reactive compounds. Contamination will initiate premature crosslinking and degrade the adhesion, drying profile, and mechanical properties of the cured film.
2. Safe Handling and Ventilation: This product contains toluene and other flammable, volatile solvents. Explosion-proof ventilation must be maintained during processing and application. Keep away from open flames, ignition sources, and static electricity sources. Follow standard occupational safety protocols and use appropriate personal protective equipment (PPE).
3. Recommended Solvents: Compatible and dilutable with ketones, esters, toluene, and xylene for viscosity adjustment.

## Package & Storage:

In 200kg drum.

Keep in cool, dry place. Avoid acid and alkali contact. Avoid direct sunlight. Transported as dangerous goods. The shelf life is 6 months (can still be used if the product is qualified after the expiration date).