



LMW EPOXIDE FUNCTIONAL SILICONE RESIN

ES-50

ES-50 resin consisting of small *molecules* that are chemically different, they share certain common characteristics. The smaller molecule size has a significant effect on the visual appearance and physical properties of these resins. LMW resins level well because they make solutions of low viscosity even at high concentrations and will continue to level when they are applied and dry to a smooth and glossy film. Therefore, they saturate better than polymers. Some LMW resins are glossier than others, but they all dry in a glossy film compared to polymers.

The coatings exhibit strong anti-corrosive characteristics, also display antifouling and anti-icing properties.

The coatings from this polymer are hard, tough and have excellent abrasion and solvent resistance. These finishes are also resistant to water, alkali and acids, suitable to use for underwater application.

The most common substrates for ES-50 coatings are: ferrous and nonferrous metal, glass, wood, plastic, ceramic, sandstone marble etc.

These systems exhibit excellent dirt pickup resistance and anti-graffiti properties.

ES-50 is reactive and has a 1-2 hours curing time

As with any product, use of ES-50 in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

Special features

- excellent corrosion resistance
- extraordinary gloss retention and weather resistance
- chemical resistance
- suitable for ultra-thin coatings
- anti-graffiti effect

Technical information

- delivery form liquid
- appearance clear liquid
- solvent content < 1%
- viscosity at 25 °C < 10 mPa s
- epoxy equivalent weight approx. 2550 g/eq



LIMITATIONS

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

Suitability for

Clear coating less than 10 micron

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Application

- offshore/marine coatings
- commercial transport coatings
- pipeline coatings
- structural steel coatings
- rail car coatings
- tank coatings
- anti-graffiti coatings
- photocatalytic coatings
- release coatings
- high temperature application for industrial facilities,
- power plants,
- incinerating plants,
- ventilators, turbines,
- silencers,
- ovens, chimneys, oven inserts,
- barbeques, electric and gas heaters
- anti-corrosion coatings

Processing instructions

- Suitable hardeners are: reactive amine terminated silicon resin (SH-124, SH-120)
- Avoid thermal cure or accelerated curing conditions at high temperature.

Registration status

ES-50 ingredients are listed in the following chemical inventories: ECL, EINECS, ENCS, NDSL, PICCS, TSCA.

All ingredients are listed on the TSCA inventory or comply with the TSCA Polymer Exemption criteria according 40 CFR 723.

Packaging

420 lbs. steel drum, 42 lbs. pail

Safety notes

Comprehensive instructions are given in the corresponding Safety Data Sheets. They are available on request from Biro Technologies Inc.

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.