

Technical Data Sheet

ESON311

Highly Active Silane Terminated Polyether

April 2023 Version: V0

ESON311 is a silane terminated polyether. It is synthesized using a unique technology and process, and is often used as the main raw material for moisture-curing adhesives and sealants. The resin not only has excellent adhesive performance, but also has a wide range of bonding substrates, no free isocyanate, and no volatile gas is generated during the curing process. It is suitable for conventional sealing and bonding in construction, industry and other industries.

Product Features

- High activity, medium modulus;
- High transparency;
- Excellent bonding strength and tensile properties;
- No solvent, no odor, low VOC and friendly to the environment;
- It can be blended with other SIPE polymers;
- Excellent aging resistance and yellowing resistance.

Main Application

ESON311 polymer can be used as a base polymer in elastic sealants, elastic structural adhesives, potting compounds and coating materials. The curing method of the polymer is moisture curing and can be made into one-component, two-component or multi-component systems.

Areas of application:

- Transportation industry sealant
- High modulus building sealant

Technical Data^①

Item	Technical Parameters
Polymer Type	Silane modified polyether
Appearance	Colorless or light yellow transparent viscous liquid
Boiling Point, °C	≥250
Specific Gravity, g/cm ³	1.0
Viscosity (25°C), mPa·s	30000-45000
Water Soluble	almost insoluble in water
Shelf Life, months	≥12

① Data at the conditions 23±2°C、50±5%RH

Direction For Use

- ESON311 polymer can be quickly dissolved in common organic solvents, but almost insoluble in water. Therefore, most of the raw and auxiliary materials in the formulation system are oil-soluble substances.

- The curing mechanism of the polymer is that the alkoxy silane at both ends of the polyether reacts with water under the condition of the catalyst, and is hydrolyzed into silanol, and the silanol is cross-linked under the condition of the catalyst to form siloxane bonds, and finally form a network structure.
- Other additives and fillers in the formula need to be
- dehydrated in advance, and the mixing process of each material needs to be carried out under the protection of an inert dry gas.
- For more technical support, please consult our technical engineers.

Cleaning

- The uncured resin can be cleaned with common solvents, such as ethanol, and after curing, it can only be removed mechanically and the surface is cleaned.

Cautions

- Keep away from children.
- Avoid contacting with skin and eye. For skin contacted, remove the sealant by cloth, wash skin thoroughly with soap and water. For eye contacted, hold eyelids apart and flush thoroughly with water, contact physician. Please refer to the Material Safety Data Manual (MSDS) for details.

Packing Specification

- 200kg/drum, packed in iron drum lined with aluminum film bag;
- 1000kg/drum, packed in plastic ton drums;

Transport And Storage

- Transportation: Moisture-proof, rain-proof, sun-proof, high temperature-proof, keep away from heat sources, handle with care, no extrusion and collision.
- Storage: sealed and stored in a low-temperature, dry place, the recommended storage temperature is 5~25° C, humidity ≤ 50%RH.
- Storage period: 12 months.

Special Notes: All recommendations concerning our products, including transportation, storage, and handling are based on our current knowledge and experience under normal conditions. In practical application, results may differ because of materials and actual site conditions change, our company do any guarantee and bear any legal responsibility. In order to ensure the bonding effect and the compatibility of products and materials, it is recommended to do the compatibility test or consult our company's Technical Services before proceeding with the full application.

GUANGDONG SHENGYE CHEMICAL TECHNOLOGY CO., LTD

Add: Huiyang District, Huizhou City, Guangdong Province, China