

Technical Data Sheet



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Phenyl Elastomer LR-ELS400

Description:

Chemical Name: Phenyl-Modified Viscoelastic Compound; Elastic Mastic / Elastic Putty, Damping Material, Damping Grease, Mastic, Elastomeric Damping Material, Viscoelastic Damping Elastomer, Damping Materials & Elastomers, High Phenyl Elastic Putty; High-Damping Viscoelastic Putty; PVMQ precursor;

Features

- Superior Damping: The bulky phenyl groups increase the steric hindrance and internal friction of the polymer chains. This results in a significantly higher Loss Factor ($\tan \delta$), meaning it dissipates vibration and impact energy much more efficiently than standard methyl putties.
- Extreme Low-Temperature Flexibility: Standard putty acts like glass (shatters) at very low temperatures. Phenyl putty maintains its viscoelastic "bounce" and flow properties down to -60°C or even lower.
- Radiation Resistance: Inherits the radiation stability of phenyl silicones, suitable for aerospace or nuclear environments.

Typical Technical Properties:

Appearance: Grey viscous liquid

Phenyl content (mol%): 2.0-30.0

Viscosity(25°C , mPa.s): 2000-10 million

Applications:

This product have good performance of low temperature resistance. It still has flexibility under the condition of low temperature 120°C below zero. Also it has performance of corrosion resistance, ozone resistance, resistance to radiation, ablation resistance and self-extinguishing. Our product can assist shock absorber appliance manufacturers in many industries, such as aerospace, High-speed rail, tanks, nuclear submarines, ships, aircraft, bridges, metallurgy, mining, sea platforms, etc.

- Aerospace Dampers: Used in inertial guidance systems or instrument mounts to absorb micro-vibrations across a wide temperature range.
- Smart Impact Protection: Advanced impact-hardening gels for military or sports body armor where performance at varying temperatures is critical.
- Tuned Mass Dampers: High-frequency vibration control in precision machinery.

Package &Storage:

In 20kg pail, 200kg drum

Keep in cool, dry and ventilated place. Keep away from sunlight and fire sources. Keep in unopened containers, shelf life is 60 months from the date of production. It is shipped as non-hazardous substance.

Storage beyond the shelf life does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.