

SPAKS LUBE PRIVATE LIMITED J-896, Matsya Industrial Area, Alwar, Rajasthan - 301030 Email: support@spakslube.com | Website: www.spakslube.com

Polyurethane Sealant Technical Data Sheet

Product Description

Polyurethane Sealant is a high-performance, one-component sealant that provides excellent adhesion and flexibility for a wide range of sealing applications. Made with advanced polyurethane technology, this sealant is ideal for use in construction, automotive, and industrial applications where a durable, waterproof, and weather-resistant seal is required. Polyurethane Sealant forms a strong, elastic bond that resists cracking, shrinking, and discoloration over time, even in harsh weather conditions and exposure to UV rays. This product cures by moisture absorption, forming a tough, flexible bond with a wide variety of materials, including metals, glass, concrete, ceramics, and most plastics. Polyurethane Sealant is highly resistant to water, making it suitable for both interior and exterior applications, and it maintains its performance even under extreme temperature fluctuations. Its ability to form a tight, flexible seal ensures long-lasting protection against moisture, air infiltration, and dirt.

Polyurethane Sealant is typically used for sealing joints, gaps, cracks, and seams in areas subject to movement, such as windows, doors, and expansion joints in buildings. It is available in different colors to suit the aesthetic needs of various projects. Additionally, it can be used in automotive applications to seal body panels, windows, and trim. This versatile sealant is also resistant to aging, weathering, and chemicals, which makes it a preferred choice for applications that require high durability and long-term reliability.

Recommended Use

- 1. **Construction and Building Applications**: Polyurethane Sealant is widely used in the construction industry to seal expansion joints, curtain walls, facades, windows, and doors. It provides an airtight and waterproof seal, preventing air and water infiltration and improving energy efficiency in buildings. It is suitable for use on both vertical and horizontal surfaces, including metal, masonry, glass, and concrete.
- 2. Automotive Applications: In the automotive industry, this sealant is ideal for bonding and sealing windows, windshields, roof joints, and other critical areas. It ensures a secure seal against water and air leakage, contributing to the structural integrity and safety of vehicles. Polyurethane Sealant also helps reduce road noise and vibration.
- 3. **Marine Applications**: Polyurethane Sealant's excellent resistance to water and UV rays makes it suitable for use in marine environments. It can be used to seal joints and seams on boats, ships, and other marine vessels, offering protection against saltwater corrosion and ensuring a waterproof seal under harsh conditions.
- 4. Industrial Applications: This sealant is commonly used in industrial settings for sealing machinery, equipment, and storage tanks. It provides a high level of chemical resistance and flexibility, making it suitable for environments exposed to oils, solvents, and other harsh substances.
- 5. **HVAC Applications**: Polyurethane Sealant can be used in heating, ventilation, and air conditioning (HVAC) systems to seal joints and gaps in ducts, vents, and pipes. It ensures a tight seal that improves energy efficiency by preventing air leaks and minimizing the loss of conditioned air.
- 6. **Exterior Sealing**: Polyurethane Sealant is an excellent choice for outdoor applications such as sealing roofs, gutters, and downspouts, where it protects against water infiltration and prevents damage to structural components caused by moisture.
- 7. **General Maintenance and Repair**: Ideal for general maintenance and repair, this sealant can be used to seal cracks, gaps, and seams in various surfaces, including concrete, masonry, wood, and metals. It offers long-term durability and flexibility for a wide range of sealing needs.

© 2024 SPAKS LUBE PRIVATE LIMITED. All Rights Reserved.

This document provides brief details of our product and is subject to change. For the latest version, please contact us at support@spakslube.com.

SPAKS LUBE PRIVATE LIMITED



J-896, Matsya Industrial Area, Alwar, Rajasthan - 301030 Email: support@spakslube.com | Website: <u>www.spakslube.com</u>

Technical Data Specification

- Colour: White, Black, Grey, or Custom Colors
- **Base**: Polyurethane
- Curing Mechanism: Moisture curing
- Adhesion: Excellent adhesion to glass, metals, ceramics, concrete, plastics, and other substrates
- Viscosity: Thixotropic paste
- Specific Gravity: 1.30-1.40 g/cm³
- Shore A Hardness: 25-40
- Elastic Recovery: 85%
- Service Temperature Range: -40°C to +90°C
- Curing Time: 24 hours (depending on thickness and humidity)
- Shelf Life: 12 months when stored in a cool, dry place
- Flash Point: > 93°C
- Tensile Strength: 1.5-2.0 MPa
- Stretch at Break: 300-400%
- Solids Content: 100%
- Water Resistance: Excellent resistance to water and humidity
- UV Resistance: Excellent

Dosage, Addition & Method of Application

1. Dosage:

The amount of Polyurethane Sealant required depends on the size and depth of the gap or joint. Typically, for medium-sized joints, a 5mm bead of sealant is recommended for application. For larger joints, the sealant volume should be adjusted accordingly.

2. Addition:

No mixing is required; the product comes ready to use in a cartridge. Simply load the cartridge into a caulking gun and apply directly to the desired area. Ensure the surface is clean and dry before application to guarantee optimal adhesion.

3. Surface Preparation:

Surfaces must be clean, dry, and free of any oil, grease, dust, or contaminants. Clean the application area with a solvent such as isopropyl alcohol or acetone to remove any debris or dirt. Roughening the surface with sandpaper can improve adhesion to certain materials.

4. Application Method:

- Step 1: Cut the nozzle of the cartridge to the desired size.
- Step 2: Load the cartridge into a caulking gun and apply the sealant to the joint or gap in a continuous bead, ensuring the joint is filled entirely.
- Step 3: Use a smoothing tool or a dampened finger to smooth the bead and ensure proper adhesion.
- Step 4: If necessary, tool the sealant within 15 minutes of application before it starts to cure.
- Step 5: Allow the sealant to cure for 24 hours for full bond strength. The curing time may vary depending on temperature and humidity levels, so adjust accordingly.

5. Post-Application:

Once cured, the sealant forms a flexible, durable bond that resists cracking, shrinking, and weathering. Polyurethane Sealant can be painted over with most paints after curing if required.

This document provides brief details of our product and is subject to change. For the latest version, please contact us at support@spakslube.com.



Safety Instructions

1. Handling:

Polyurethane Sealant should be handled with care. Wear protective gloves and safety glasses to avoid skin and eye contact. In case of eye contact, flush immediately with water for at least 15 minutes and seek medical attention.

2. Storage:

Store Polyurethane Sealant in a cool, dry location away from direct sunlight and moisture. Keep the product tightly sealed in its original packaging to maintain its quality and extend its shelf life.

3. Ventilation:

Always use Polyurethane Sealant in a well-ventilated area. Avoid inhaling fumes during application, and work in spaces with adequate airflow to minimize inhalation risks.

4. First Aid Measures:

- Skin Contact: Wash with soap and water if the sealant comes into contact with skin.
- Eye Contact: Rinse immediately with water for 15 minutes. Seek medical attention if irritation persists.
- Inhalation: Move to an area with fresh air. If breathing becomes difficult, seek medical attention.
- **Ingestion**: If swallowed, do not induce vomiting. Rinse mouth with water and seek medical assistance immediately.
- 5. Disposal:

Dispose of any unused sealant in accordance with local disposal regulations. Do not pour sealant down drains or throw it in regular trash. For large quantities, contact a hazardous waste disposal service.

By following these safety precautions and proper application guidelines, Polyurethane Sealant ensures strong, long-lasting, and flexible seals for a wide variety of sealing needs, providing a reliable and durable solution in construction, automotive, industrial, and marine applications.

COATING EXPERT