



Product Data Sheet

ASMACO PU 81

Structural Bonding Bus Truck Rail Sealant

Description:

Asmaco PU 81 sealant is a high-performance polyurethane-based sealant designed for heavy-duty industrial applications, particularly in transportation sectors such as buses, trucks, and rail systems. Its formulation ensures strong adhesion to metals, fiberglass, and certain plastics, delivering a flexible and durable seal that withstands extreme weather, UV exposure, vibrations, and dynamic loads. Fast-curing and paintable once set, ASMACO PU 81 maintains elasticity, allowing for joint movement without cracking, making it ideal for sealing body panels, joints, and structural components in high-stress environments where reliability and long-lasting performance are essential.



KEY PERFORMANCE PROPERTIES

High-Strength Polyurethane Formula:

- Made from polyurethane, ASMACO PU 81 combines flexibility with strong adhesive properties, making it ideal for bonding and sealing in environments that undergo continuous stress and movement.

Exceptional Adhesion:

- This sealant bonds well with a variety of surfaces used in vehicle manufacturing, including metals, fiberglass, and certain plastics, ensuring a lasting and secure hold.

Weather and UV Resistance:

- Engineered to withstand outdoor elements, it provides excellent resistance against UV rays, temperature extremes, and weather changes, ensuring the seal remains effective over time, even in exposed areas.

Vibration and Shock Absorption:

- It's highly resilient to vibrations, impacts, and dynamic loads, which are common in moving vehicles. This feature helps to maintain the integrity of the seal in vehicles frequently on the move.

Elasticity and Flexibility:

- The sealant remains flexible after curing, allowing it to accommodate joint movement and structural expansion or contraction without cracking or losing its seal.

Paintable Surface:

- Once cured, the sealant can be painted over to match the surrounding surface, making it suitable for use in visible areas where appearance matters.

Fast Curing:

- Designed for quick curing times, the sealant forms a surface skin within 20-30 minutes and fully cures within a few hours, depending on conditions, reducing downtime in industrial or repair settings.

AREAS OF APPLICATION

ASMACO PU 81 is a versatile sealant with a wide range of applications, primarily in industrial and transportation sectors due to its durability and flexibility. Here are its main areas of application:

Automotive & Transport Vehicles:

Body Sealing:

- Ideal for sealing body panels, roof joints, side panels, and structural components in buses, trucks, and other commercial vehicles.

Rail Systems:

- Effective for sealing compartments, doors, and flooring in railcars and trains, providing flexibility and durability under continuous movement.

Cargo Areas:

- Used in sealing cargo compartments to prevent moisture, dust, and air leakage, helping to maintain cargo integrity.

Construction Machinery:

- Suitable for use in heavy construction equipment where joints and seams require strong, flexible sealing against vibrations, shocks, and environmental exposure.

Marine Applications:

- Effective in sealing joints and panels in marine vessels, including small boats and ferries, where water resistance, flexibility, and UV stability are crucial.

General Industrial Manufacturing:

- Used in manufacturing sectors requiring durable, vibration-resistant seals, especially in equipment that undergoes significant movement or exposure to outdoor conditions.

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Maintenance and Repair:

- Ideal for vehicle and equipment maintenance, providing reliable sealing for repairs and panel replacements in industrial vehicles and machinery.

ASMACO PU 81 is known for its adaptability across industries requiring long-lasting, resilient seals in challenging conditions.

METHOD OF APPLICATION

The application method for **ASMACO PU 81** requires careful preparation and attention to ensure optimal performance. Follow these steps for best results:

Surface Preparation:

Clean the Surface:

- Ensure surfaces are clean, dry, and free from dust, grease, oil, and other contaminants. Use a suitable cleaner or solvent to remove any residue that might interfere with adhesion.
- **Priming (If Necessary):** For certain porous or difficult-to-bond surfaces, applying a compatible primer may improve adhesion. Refer to the product guidelines to determine if a primer is recommended for the specific substrate.

Application Tools:

- **Standard Caulking Gun or Pneumatic Gun:** Use a standard sealant caulking gun for smaller applications or a pneumatic dispensing gun for larger industrial applications to ensure consistent flow.

Applying the Sealant:

- **Cut the Nozzle:** Cut the nozzle to the desired bead size and angle to control the flow and precision of application.
- **Apply a Uniform Bead:** Squeeze the sealant out in a continuous, even bead along the joint or seam, ensuring consistent thickness and coverage.
- **Tooling:** Tool and smooth the sealant within 5-10 minutes of application to create a neat finish and to eliminate any air pockets. A spatula or wet finger can be used to achieve a clean, professional finish.

Curing:

Initial Curing Time:

- ASMACO PU 81 will start to skin over in approximately 20-30 minutes, depending on humidity and temperature.

Full Cure:

- Allow 24 hours for a full cure, though the exact curing time may vary based on environmental conditions. Ensure adequate ventilation in the curing area.

Post-Application:

Painting:

- If needed, once fully cured, the sealant can be painted to match the surrounding surfaces.

Cleanup:

- Clean any excess sealant or spills immediately with an appropriate solvent before the material cures.

By following these steps, ASMACO PU 81 will provide a strong, flexible, and durable seal ideal for industrial and transportation applications.

PACKAGING / SUPPLYING

ASMACO PU 81 is available in
280 ml Plastic Cartridge (**20 Cartridges / Carton**)

COVERAGE RATE

The approximate linear meter sealant consumption per cartridge

| | |
|--------------|-----------------------------|
| Bead ø 15 mm | 280 ml / 4.67 Running Meter |
|--------------|-----------------------------|

CLEAN UP

Clean all the equipment immediately with **ANCHOR CLEANER 1**

STORAGE & SHELF LIFE

ASMACO PU 81 Store in cool place under cover, out of direct sunlight and protect from extreme temperatures. In tropical climate the product must be stored in air – conditioned environment (< 25° C). The shelf life is up to 12 months in unopened conditions if stored as per guidelines.

Note:

Storing the **ASMACO PU 81** beyond the specified date on the label doesn't automatically make it unusable. For quality assurance, it is crucial to confirm with ANCHOR ALLIED FACTORY LLC whether the properties required for the intended use remain intact in such instances.

QUALITY & CARE

All products originating from **ANCHOR ALLIED FACTORY LLC Sharjah, UAE**. facility is manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, and ISO 14001.

HEALTH & SAFETY

Protective clothing such as gloves and goggles should be worn while applying **ASMACO PU 81** In case the material splashes to the skin or eyes wash the same with fresh water immediately.

In critical cases seek medical assistance.



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TECHNICAL SPECIFICATIONS

| PROPERTIES | TYPICAL VALUES | TEST STANDARDS |
|---------------------------|-------------------------------|----------------------------------|
| Color | Black /White | — |
| Consistency | Thixotropic (Non Sag) | ASTMC 920 -18/ASTM C 639 -15 |
| Curing Mechanism | PU | — |
| Application Temperature | +5°C — + 40°C | — |
| Density, g/m ³ | 1.25 ±0.02 | ASTM D 1475 |
| Skin Over Time | 30 min (RT) | ASTM C 920 -18 / ASTM C 679 - 15 |
| Curing rate | > 2 mm/day (23°C and 50% R.H) | — |
| Hardness Shore A | 55 - 65 | ASTM D 2240 |
| Adhesion & Cohesion | No, Cracks, Loss of Adhesion | ASTMC 920 -18/ASTM C 719 -14 |
| Elongation at Break | ≥ 300 % | ASTM D 412 |
| Tensile Strength | >3.0 N/mm ² | ASTM D 412 |

Properties listed are based on laboratory-controlled tests. All values given are subject to 5-10% tolerance.

Shipping Limitations: None

Note

The information and data contained in the product data sheet is believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of the product for usage. Since the supplier cannot know all the uses, or the conditions of use to which the product may be exposed, no warranties concerning the fitness or suitability for particular use or purpose are made. It is the user's responsibility to thoroughly test any proposed use of our products and independently conclude satisfactory performance in the application. Likewise if the application, product specifications or manner in which our products are used require government approval or clearance, it is the sole responsibility of the user to obtain sure authorization.

Non – Warranty : Because the storage, handling and application of the material is beyond Anchor Allied Factory Ltd's control, we can accept no liability for the result obtained. Anchor Allied Factory Ltd's sole limited warranty is the product meets the manufacturing specifications in effect at the time of shipment. There is no warranty or merchantability or fitness for use, nor any expressed or implied warranty. Anchor Allied Factory Ltd will not be liable for any incidental and consequential damage of any kind. The exclusive remedy for breach of such limited warranty is a replacement of any product shown to be other than warranted. Suggestions of uses should not be taken as inducement to infringe any patents.

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MFG. OF SILICONE , ACRYLIC & POLYURETHANE SEALANTS, WATER PROOFING COATINGS,
SELF - ADHESIVE TAPES, SPRAY PAINTS, CONTACT ADHESIVE, PVC CEMENTS, EPOXY STEEL

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