

# **Product Data Sheet**

# **ASMACO PU 72**

# Glazing & Structural Bonding Adhesive / Sealant

### **Description:**

Asmaco PU 72 is a top-tier, non-sagging, single-component polyurethane adhesive designed for high-performance applications. It boasts excellent flexibility and cures when exposed to atmospheric moisture, resulting in a tough and durable bond suitable for various materials. This adhesive is non-conductive, making it particularly suitable for bonding glass that incorporates radio antennas or additional electrical equipment. Its reliable adhesion ensures compatibility with sensitive electronic components, making it ideal for automotive, marine, and construction uses where strength and durability are essential. Additionally, Asmaco PU 72 offers excellent resistance to environmental factors, including moisture and temperature variations, enhancing its long-term performance in demanding conditions.



### **KEY PERFORMANCE PROPERTIES**

### **Single Component:**

Easy to use, requiring no mixing.

#### Low Odor

Minimal smell for user comfort during application.

### Simultaneous Bonding and Sealing:

Effectively bonds and seals surfaces in one step.

# Rapid Tack-Free and Curing Time:

Quick initial set time, reducing waiting periods for further work.
 High Thixotropy:

• Exceptional viscosity for effective gap-filling capabilities.

### Versatile Adhesion:

 Compatible with a wide range of substrates for diverse applications.

### Non-Staining Cure:

Curing process does not leave stains on surfaces.

# Non-Corrosive:

Safe for use on various materials without causing damage.

## **Initial Load-Bearing Capacity:**

Provides immediate strength after application.

### **Increased Torsional Stiffness:**

• Enhances the structural integrity of the final assembly.

#### **Shock and Impact Resistance**:

Withstands physical impacts without compromising the bond.

### **Vibration and Sound Damping:**

Reduces noise and absorbs vibrations effectively.

### **Drive-Away Time:**

 Allows for vehicle use after just 3 hours, applicable within a temperature range of -5°C to +40°C.

# AREAS OF APPLICATION

Automotive Glass Bonding:

# Commercial and Industrial Vehicles:

 Asmaco PU 72 is engineered for secure bonding of front, side, and rear glass in a wide range of vehicles, including trucks, buses, and other heavy-duty applications. Its flexibility and strength provide a reliable seal that withstands the rigors of daily operations and highstress environments.

# Passenger Vehicles:

Suitable for use in standard automotive repair and assembly, ensuring
a durable, weather-resistant seal around windshields and windows. Its
non-conductive properties make it especially useful in modern
vehicles with integrated antennas or electrical systems embedded in
the glass.

# Structural Bonding in the Transportation Industry: High-Thermal and Dynamic Stress Applications:

 Asmaco PU 72 excels in environments where bonded components experience significant fluctuations in temperature and dynamic loads, such as vibrations, impacts, and shifts in load-bearing requirements.
 This makes it suitable for various components in buses, trailers, rail cars, and construction vehicles.

# **Assembly of Different Materials:**

 This adhesive is compatible with metals, glass, composites, and certain plastics, allowing manufacturers to securely join dissimilar materials that are subjected to thermal expansion, contraction, and continuous motion.

### **Marine Industry Applications:**

# Window and Hatch Sealing:

The adhesive's durability and flexibility make it ideal for sealing glass and windows in boats and marine vessels, which are exposed to moisture, salt, and UV light. Its non-corrosive nature ensures longlasting bonding even in harsh marine environments.

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### **Structural Bonding of Components:**

Asmaco PU 72 is suitable for bonding and sealing various elements on boats and marine vessels, providing resistance to water, vibration, and shifting loads, while also accommodating the material flexibility needed in these settings.

# Rail and Public Transport Vehicles:

### Window and Door Bonding:

Used to install and bond large glass panels and windows in trains, subways, and trams, Asmaco PU 72 provides a strong, flexible seal that handles continuous thermal and dynamic stress. Its impact resistance and vibration damping properties help to extend the longevity of the glass and frame.

### **Interior Assembly:**

The adhesive can also be used in interior components where flexible, resilient bonding is required, such as in seating, panelling, and structural components that need to endure the wear and tear of frequent public use.

# Construction Equipment and Agricultural Machinery: Heavy Equipment Cabins:

For construction and agricultural vehicles, such as excavators, tractors, and loaders, Asmaco PU 72 ensures secure bonding of glass and structural components, which are regularly subjected to impact and vibration.

### Panels and Seals:

Provides durable adhesion for panelling, window seals, and other structural elements in equipment cabins, where robust bonding and shock resistance are essential.

# **Industrial and Specialty Equipment:**

### Manufacturing and Assembly Lines:

Asmaco PU 72's high-performance bonding properties make it suitable for joining materials in heavy machinery, robotics, and equipment that require a flexible bond to absorb vibrations and endure thermal cycling.

# **Electrical Enclosures:**

Due to its non-conductive nature, it can bond and seal glass or other materials around sensitive electrical components, ensuring insulation and a secure fit without interfering with electrical functionality.

Asmaco PU 72's versatility makes it ideal across various sectors, particularly where high-performance, flexible, and durable bonding is needed. It's tailored for applications that require reliable adhesion in environments with high dynamic stress, temperature fluctuations, and exposure to the elements

### PACKAGING / SUPPLYING

ASMACO PU 72 is available in 280 ml Plastic Cartridge (20 Cartridges / Carton)

# **COVERAGE RATE**

The approximate linear meter sealant consumption per cartridge

Beed ø 15 mm	280 ml / 4.67 Running Meter
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### CLEAN UP

Clean all the equipment immediately with ANCHOR CLEANER 1

### METHOD OF APPLICATION

### **Surface Preparation:**

- Ensure that all surfaces to be bonded are completely clean, dry, and free from contaminants such as grease, oil, dust, or any residues that could affect adhesion.
- Use an appropriate cleaning or activating agent to prepare the surfaces, and allow them to dry thoroughly.
- For optimal adhesion, apply a suitable primer to the surface after cleaning, as per the adhesive manufacturer's recommendations.

### **Preparing the Cartridge:**

#### **Piercing the Nozzle:**

 First, pierce the nozzle opening of the cartridge to allow the adhesive to flow smoothly.

# **Cutting the Nozzle Tip:**

 Cut the nozzle tip at an angle to create a bead size that meets your application requirements. The bead size may vary depending on the gap and surface area to be bonded.

### **Adhesive Application:**

# **Using the Cartridge Gun:**

 Insert the cartridge into a piston-type manual, air, or batteryoperated cartridge gun for even application. A piston-type gun is recommended to maintain consistent pressure and ensure a smooth, continuous bead of adhesive.

### Applying the Bead:

 For uniform thickness and optimal bonding, apply the adhesive in a triangular bead pattern. This shape enhances the adhesive's contact surface, promoting better adhesion and flexibility.

#### **Temperature Guidelines:**

Apply the adhesive only within the temperature range of 50°F (10°C) to 95°F (35°C). For best results, the recommended temperature for both the substrate and the adhesive is between 59°F (15°C) and 77°F (25°C). This helps ensure proper curing and maximum bond strength.

Following these detailed steps will help achieve a strong, durable bond and optimal adhesive performance. Always refer to the manufacturer's specifications and safety guidelines for best results.

### STORAGE & SHELF LIFE

**ASMACO 72** 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 ( $< 25^{\circ}$  C). The shelf life is up to 12 months in unopened conditions if stored as per guidelines.

#### Note:

Storing the ASMACO 72 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.

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# **HEALTH & SAFETY**

Protective clothing such as gloves and goggles should be worn while applying ASMACO PU 72 In case the material splashes to the skin or eyes wash the same with fresh water immediately. In critical cases seek medical assistance.

### **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.

### TECHNICAL SPECIFICATIONS

PROPERTIES	TYPICAL VALUES	TEST STANDARDS
Color	Black	_
Consistency	Thixotropic (Non Sag)	ASTMC 920 -18/ASTM C 639 -15
Curing Mechanism	PU	_
Application Temperature	$+5^{\circ}\text{C} - +40^{\circ}\text{C}$	_
Density, g/m <sup>3</sup>	1.25 ±0.02	ASTM D 1475
Skin Over Time	10 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/mm²	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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