



Product Data Sheet

ASMACO PU 90

Single Component Polyurethane Sealant

Description: ASMACO PU 90 is a high-performance, single-component polyurethane sealant that cures upon exposure to atmospheric humidity. Engineered for flexible and durable sealing, it is suitable for both indoor and outdoor applications, providing dependable joint sealing and weatherproofing against harsh environmental factors. Additionally, ASMACO PU 90 forms an acoustically efficient barrier, reducing sound transmission through sealed joints, making it ideal for use in noise-sensitive environments.



STANDARDS

ASMACO PU 90 complies with the requirements of:

- ISO 11600 F 25 LM,
- ASTM C-920,
- ASTM C 719 - Type S, Grade NS Class 25 Use NT, M.A
- ASTM C 919-12
- ASTM E 90 -2004/ASTM E 413-2004

AREAS OF APPLICATION

- **Construction Joints:** Suitable for sealing expansion and movement joints in construction, concrete, and masonry.
- **Facade Sealing:** Ideal for sealing curtain walls, window frames, and doors.
- **Roofing Applications:** Effective for sealing roof joints, gutters, and roof parapets.
- **Sanitary Sealing:** Can be used for sealing in kitchens, bathrooms, and other wet areas due to its water-resistant properties.
- **Industrial and Commercial Applications:** Appropriate for sealing joints in floors, walls, and warehouses.
- **Acoustic Sealing:** Perfect for soundproofing spaces like office partitions, studios, theaters, and residential areas.
- **Carpentry and Metalwork:** Bonds and seals metals, wood, and other construction materials in interior and exterior works.

KEY PERFORMANCE PROPERTIES

Forms a tough, flexible, elastomeric, weatherproof, and watertight seal.

- **Durability:** Long-lasting performance, highly resistant to weather, UV radiation, and aging.
- **Elasticity:** Provides flexibility to accommodate joint movement without cracking or breaking.
- **Waterproofing:** Excellent water resistance, preventing water ingress in joints.
- **Weatherproofing:** Protects against harsh environmental factors, including temperature variations, rain, and wind.
- **Acoustic Insulation:** Creates an efficient sound barrier, reducing noise transmission through sealed joints.
- **Adhesion:** Adheres well to a wide range of materials including concrete, metal, wood, glass, and plastic.
- **Non-corrosive:** Will not corrode metals or other construction materials.
- **Paintable:** Can be painted over once fully cured to match the surrounding surfaces.

METHOD OF APPLICATION

- **Joint Preparation:**
To ensure strong adhesion and optimal performance of the sealant, follow these detailed steps for joint preparation:
- **Masking:**
Apply masking tape along both sides of the joint to protect adjacent surfaces. This helps achieve clean edges. Apply the sealant evenly, and remove the tape while the sealant is still tacky for a smooth finish.
- **Joint Configuration:**
Maintain a **width-to-depth ratio of 2:1** for proper flexibility and performance. This ensures that the sealant accommodates joint movement without cracking.
- **Backer Rod:**
Insert a high-density polyethylene backer rod into the joint to regulate the width and depth. This prevents the sealant from adhering to the bottom of the joint (3-point adhesion), ensuring it bonds only to the sides, which is crucial for accommodating joint movement.
- **Adhesion:**
Ensure that the sealant adheres to **only two surfaces** (the sides of the joint). This allows for thermal expansion and contraction without stress on the sealant, extending its lifespan.

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- **Trafficable Joints:**
For joints exposed to vehicle traffic, such as in parking areas or driveways, apply the sealant **1.5-3 mm below the adjacent surface**. This prevents the wheels of vehicles from picking up or damaging the sealant.

Application:

- **Preparation:**
Use a sealant gun fitted with a conical nozzle. Cut the nozzle at an angle to match the joint width. Ensure the joint surfaces are clean and primed if necessary.
- **Sealant Application:**
Gun the sealant into the joint using even pressure. For deep joints, apply the sealant in layers to avoid trapping air. Clean the nozzle regularly to prevent contamination. In **vertical joints**, start at the bottom and work upwards to ensure continuous support for the sealant.
- **Masking Removal:**
Remove the masking tape immediately after applying the sealant, while it is still tacky, to achieve smooth and clean edges.
- **Finishing:**
After applying the sealant, smooth the surface with a rounded spatula or similar tool to ensure proper adhesion and remove air bubbles. Shape the sealant to a slightly concave profile for better durability. Avoid using fingers, as this can compromise the finish and adhesion quality.

CLEAN UP

Clean equipment immediately with **ANCHOR CLEANER 1** after usage.

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.

PACKAGING / SUPPLYING

ASMACO PU 90 is available in 600 ml Sausage

COVERAGE RATE

The approximate linear meter sealant consumption per liter can be estimated from the following formula:

$$\frac{W \times D}{1000}$$

= Sealant Consumption per linear meter per liter.

Where: W = Joint Width (mm), D = Joint Depth (mm)

Joint Size in mm	Liters/meter Run	600 ml / Sausage meter run
4 x 4	0.016	37.5
6 x 6	0.036	16.60
12 x 10	0.120	5.00
20 x 10	0.200	3.00
25 x 12	0.300	2.00
30 x 15	0.450	1.33
35 x 15	0.525	1.14

STORAGE & SHELF LIFE

ASMACO PU 90 SP 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.

HEALTH & SAFETY

Protective clothing such as gloves and goggles should be worn while applying **ASMACO PU 90**. 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	Beige, Grey, White	—
Consistency	Smooth Paste	—
Solid Content	93 % ±1	—
Curing rate	> 2 mm/day (23°C and 50% R.H)	—
Service Temperature	- 20°C — +80°C	—
Application Temperature	+5°C — +40°C	—
Skin Over Time	30 — 60 min (23°C and 50% R.H)	—
Flow Rate	350 – 450 gms@25°C ± 2°C	—
Paint Ability	Yes	—
Weathering UV Resistance	250 hours	—
VOC	31 g/L	USEPA - 24
TVOC	<0.01 mg/m ³	CDPH
SCAQMD	~ 31 g/L	SCAQMD Rule 1168
Density, g/m ³	1.50 ±0.02	ASTM D 1475
Skin Over Time	60 min (+23° C 50% (R.H)	ASTM C 920 -18 / ASTM C 679 - 15
MAF	± 25%	ASTM C 719
Hardness Shore A	~ 40	ASTM D 2240
Elongation at Break	≥ 200 %	ASTM D 412
E 100 Modulus	~ 0.40 N/mm ²	ASTM D 412
Tensile Strength	≥1.40 N/mm ²	ASTM D 412

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.

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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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