



# Product Data Sheet

## ASMACO PU 90 SP

### Single Component Polyurethane Sealant

**Description:** ASMACO PU 90 SP stands as a top-tier, high-performance sealant, boasting advanced polyurethane technology. This premium-grade, moisture-cured, 1-component formulation is characterized by exceptional elasticity and durability. With its non-sag property, it allows easy application on vertical surfaces while maintaining robust sealing capabilities. Versatile across a range of applications, this elastomeric sealant sets a superior standard for reliable and enduring sealing solutions. Notably, it cures upon exposure to atmospheric humidity, enhancing its convenience and effectiveness in various environmental conditions.



#### STANDARDS

- ASMACO PU 90 SP complies with the requirements of:
- Federal Specifications TT-S-00230 C, Type II, Class A
  - ASTM C 920, Type S, Grade NS, Class 35, Use, T, NT, O, M, A, I
  - ISO 11600 F, 25 LM

#### AREAS OF APPLICATION

ASMACO PU 90 SP demonstrates its versatility across a wide range of applications, including:

- Joints between prefabricated construction materials
- Sealing and bonding of ventilation ducts, gutters, and spouts
- Excellent material for sealing joints between pre-cast, concrete panels
- Concealing GRC (Glass Reinforced Concrete) & GRP (Glass Reinforced Plastic) lining joints
- Expansion joints between various construction materials
- Movement and construction joints in floors.
- Indoor and outdoor applications for pedestrian and light traffic areas.
- This expansive list showcases the adaptability of ASMACO PU 90 SP making it a reliable choice for diverse construction and sealing needs

#### KEY PERFORMANCE PROPERTIES

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

- Excellent resistance to deterioration due to weathering, ozone, U.V. light, and high climatic and in-use temperatures.
- Provides durable water and weatherproof sealing even in joints with high levels of deformation (M.A.F.  $\pm 25\%$ ) or repeated cyclic movement of compression and extension over a wide temperature range.
- Demonstrates excellent adhesion to concrete, brickwork, metal, tiling, masonry, stone, steel, and glass (check the need for primer).
- Primer-free on dry concrete in non-submerged conditions.
- Single-component, easy-to-apply formulation.
- Non-shrink, non-sag, gun grade for vertical use.
- Can be over-painted after curing when applied on concrete or blockwork substrates.
- Forms a smooth, blister-free surface when applied onto dry substrates.
- Exhibits good resistance to dilute acids and alkalis
- Available in different colors to suit aesthetic preferences

#### METHOD OF APPLICATION

##### Joint Preparation:

To ensure optimum adhesion the joint faces must be sound, clean dry and free from any loosely adherent materials which could prevent adequate bond to the substrate. Sealant shall be applied as per the following general method of application:

**Masking:** Apply masking tape on both side of the joint surface, apply sealant evenly, remove the tape while the sealant is still tacky.

**Joint Configuration:** width: depth ratio should be 2:1

**Backer Rod:** Use a high density polyethylene backer rod as a backup material always to adjust the joint width – depth ratio.

**Adherent:** Sealants should adhere to only two surfaces of the joint to take care of thermal expansion and contraction of the joint.

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For horizontal trafficable joints, it is recommended to apply the sealant to a level at least 1.5 – 3.0 mm below the adjoining surfaces to avoid the wheels of the vehicles picking the sealant.

## Joint depth:

For non-immersed expansion joints, subject to cyclic movement, and greater than 20mm wide, it is important that the depth should not exceed half the width to optimize the elastomeric properties of the joint sealant. When using filler boards in expansion joints to achieve the correct depth, it is essential to use a backer rod or insert a bond breaking tape into the joint in order to prevent 3-point adhesion.

## Applications:

**ASMACO PU 90 SP** is formulated to be applied using a sealant. Sealant guns are fitted with conical nozzles which can be cut to suit the joint width. Apply masking tape on both side of the joint surface. The sealant should be gunned into the joint using an even trigger pressure, cleaning the nozzle occasionally to avoid contamination. Deep joints should be filled in two or more runs, to prevent air entrapment. When applying the sealant to a vertical joint, start application at the bottom of the joint so as to continuously support the sealant. Remove the tape while the sealant is still tacky.

## Finishing

In order to displace any air bubbles present in the sealant. It is advisable, immediately after the **ASMACO PU 90 SP** has been applied, to finish by tooling with a rounded spatula or similar object. The outermost surface of the sealant should be finished with a slightly concave profile. On no account must moistened fingers be used.

## 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.

\* Properties listed are based on laboratory-controlled tests.

## PACKAGING / SUPPLYING

**ASMACO PU 90 SP** 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 SP**. 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                        | Grey                           | —                |
| Solid Content                | 95% ±1                         | —                |
| Consistency                  | Smooth Paste                   | ASTM C1184 – 23  |
| Application Temperature      | +5°C — +40°C                   | ASTM D 6411      |
| Service Temperature          | -50 °C — +90°C                 | ASTM D 6411      |
| Working Time                 | 15 min                         | ASTM C1184-18    |
| Slump                        | Nil (Non Sag)                  | ASTM D 2202      |
| Density, g/ml                | 1.30 ±0.02                     | ASTM C 1115 - 17 |
| Skin Over Time @ RT          | 30 — 60 min (23°C and 50% R.H) | ASTM C 679       |
| Hardness Shore A             | 32 — 35                        | ASTM C 661       |
| Curing Rate (23°C, 50% R.H)  | 2mm /day                       | ASTM D 5893-04   |
| Joint Movement Accommodation | ±25%                           | ASTM C 719       |
| Effect of Accelerated        | No Cracking & loss of adhesion | ASTM C 793       |
| TVOC                         | ≤ 9.0µg/m³                     | CDPH Version 1.2 |
| VOC g/L                      | <31                            | USEPA -24        |
| VOC g/L                      | < 31                           | SCAQMD Rule 1168 |
| Tensile Strength             | >2.0 N/mm²                     | ASTM D 412       |
| Elongation at Break          | ≥800 %                         | ASTM D 412       |
| Tear Strength                | >8N/mm                         | ASTM D 412       |
| Weathering. UV Resistant     | 250 hours                      | ASTM C 920       |

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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SELF - ADHESIVE TAPES, SPRAY PAINTS, CONTACT ADHESIVE, PVC CEMENTS, EPOXY STEEL

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