



Product Data Sheet

ASMACO 4450

High Quality Advanced Modified Polymers Hybrid Adhesive

DESCRIPTION: ASMACO 4450 is an innovative product that integrates the specialized properties of a high modulus sealing and bonding material, utilizing advanced hybrid polymer technology. This "hybrid" adhesive is completely neutral, designed for applications where a durable, elastic rubber joint is needed, or as an adhesive that offers exceptional bonding strength without producing bubbles.



STANDARDS

ASMACO 4450 complies with the requirements of:
ASTM C-920 S,
Grade NS Class 50 Use NT, M.A.O

AREAS OF APPLICATION

ASMACO 4450 has been formulated for sealing joints in and around concrete, Concrete Blocks, masonry, pre-cast panels, stone and fiber cement sheeting. ASMACO 4450 very strong adhesion to different substrates.

- Concrete and Masonry
- Cement Plaster Systems
- Aluminium, Copper, Brass and Zinc
- Stainless, Mild or Galvanized Steel
- Fiber Reinforced Cement Sheetting

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
- Durable 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.
- Primer-free on dry concrete in non-submerged conditions
- Single component, easy to apply.
- Non-shrink, non-sag, gun grade for vertical use.
- Durable, resilient seal
- Can be over painted after curing when applied on concrete or blockwork substrates.
- Forms a smooth blister free surface when applied onto dry substrates.
- Different colors available.

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:

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 1:2

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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Joint depth:

For non-immersed joints, subject to cyclic movement, and greater than 10 mm wide, it is important that the depth should be double from 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 4450 is formulated to be applied using a sealant cartridge. 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 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 4450 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

PACKAGING / SUPPLYING

ASMACO 4450 in 280 ml (Plastic Cartridge)

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
4 x 8	0.032
6 x 12	0.072
12 x 24	0.288
20 x 30	0.600

STORAGE & SHELF LIFE

ASMACO 4450 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 4450**. 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 SPECIFICATION

PROPERTIES	TYPICAL VALUES	TEST STANDARDS
Color	White – Grey – Beige	—
Consistency	Thixotropic (Non-Sag)	—
Curing Mechanism	Moisture Curing	—
Density, g/ml	1.4 — 1.5	—
Tack free Time	30 — 60 min (23°C and 50% R.H)	—
Curing rate	Min. 2.5mm/day (23°C and 50% R.H)	—
Temperature Resistance	-30°C — +80°C	—
Application Temperature	+5°C — +35°C	—
Rheological (Flow)	3 mm, Maximum	ASTM C 639
Sagging	0 mm	ASTM D 5893
Paintability	Yes	—
Hardness Shore A	40-50	After 28 days ASTM D 2240
Effects of accelerated Weathering. UV Resistant	No Cracking & loss of adhesion 250 hours UV	ASTM C 793
Elongation Break	≥250 %	ASTM D 412
MAF (Movement Capability)	±25 %	ASTM C 719
Tensile Strength	1.0 — 2.0 N/mm ²	ASTM D 412
Tear Strength	>6 N/mm	ASTM D 412
Elongation 100% Modulus	>0.80 N/mm ²	ASTM D 412

All values are subject to tolerance of ±5 — 10%, Properties listed are based on laboratory-controlled tests.



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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

Rev 02, TDS_ASMACO 4450, GCC 0824



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