

Technical Data Sheet

AS-4002 / AS-4002S Premier Construction Sealant

Physical Properties

Appearance:

Soft paste

Colours:

Matte black, matte grey & matte white

Tack-free / Skin-form time:

20 – 40 minutes

Application temperature:

5 °C to 40 °C

Service temperature:

-30 °C to 90 °C

Storage:

Store in a dry and cool place with temperature below 30 °C.

Shelf life:

12 months (cartridge)

12 months (sausage)

Packaging:

Content	Quantity/ carton
290 mL cartridges	20
600 mL sausages	20



Description

ALSEAL Premier Construction Sealant is a one-component, elastomeric joint sealant formulated with MS Polymer of the premium grade. The weatherability and UV resistance of the sealant is excellent, with much longer expected service life than other organic sealants in the market. The finishing is matt, less tacky, and with low electrostatic charge, thereby reducing fluid streaking issues on façade cladding caused by air-borne dust particles.

Besides, the formula is also free of silicone oil, minimizing oil-staining or other building aesthetic issues caused by migration of silicone oil. It has passed ASTM C1248, the standard test method for staining of porous substrate by joint sealants.

Unlike polyurethane sealants, this sealant is free of isocyanate and solvent and thus no issues like blistering or shrinkage will occur. It also can adhere well to numerous substrates without primer, fast-curing, paintable with common water-based coatings, and it is a green building product that complies with Leadership in Energy and Environmental Design (LEED) v4.1 EQ Credit: Low-Emitting Materials.

Features

- ♦ Excellent weatherability – 10-year warranty*
- ♦ ±50% Movement capability
- ♦ No silicone oil – Non-staining on adjacent substrates
- ♦ Paintable
- ♦ Low static charge – Less dirt streaking
- ♦ No isocyanate – No blistering
- ♦ No solvent – No shrinkage
- ♦ Bonds most substrates without primer
- ♦ Matte finish

* In compliance with ASTM C1193-16 Standard Guide for Use of Joint Sealants, with minimum sealant thickness of 6 mm (movement joint)

Applications

Specially formulated to seal metal (e.g. ACP) and stone (e.g. marble) façade cladding due to its excellent weatherability and non-staining/ less dirt-streaking characteristics. It is also recommended for sealing concrete joints like precast wall panel joints construction joints, control joints, expansion joints, and window frame perimeter sealing (PVC / Aluminum to concrete wall), both painted and non-painted surfaces. Other recommended applications include sealing of masonry, brickworks, anodized aluminum, stainless steel, porcelain, finished wood, coated metal, epoxy and polyester panels, uPVC, polystyrene, and many difficult substrates.

Technical Data

Curing system	: Moisture curing
Density	: 1.53 g/mL
Ultimate tensile at break (ASTM D412)	: 1.0 N/mm ²
Elongation (ASTM D412)	: 530 %
Shore A hardness (ASTM C661)	: 27
Joint movement capability (ASTM C719)	: ±50 %
Staining on porous substrates (ASTM C1248)	: No staining
VOC content (USEPA Test Method 24)	: 10.21 g/L
Low VOC emission compliance (CDPH v1.2)	: Yes

Approvals/ Specifications

AS-4002 meets the requirements of the following specifications:

- ♦ ASTM C920, Type S, Grade NS, Class 50, Use NT, A & M
- ♦ ASTM C1248 : 2018 Standard Test Method For Staining Of Porous Substrate By Joint Sealants
- ♦ Energy and Environmental Design (LEED) v4.1 EQ compliant
 - Low VOC - USEPA Method 24 under SCAQMD Rule 1168
 - Low VOC Emission - CDPH Standard Method v1.2- 2017



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Visit product page:

<https://www.alsealmarketing.com/as-4002-premier-construction-sealant/>

Usage Instructions

Cartridges:

1. Cut the cartridge tip carefully.
2. Cut the nozzle into an appropriate diameter at an angle of approximately 45° to 60°.
3. Use a caulking gun and extrude the sealant with a single bead.
4. Tool the sealant bead with a clean and dry tool within the working time for a smooth finishing.

Sausages:

1. Cut the tip of the sausage carefully and slip it into the caulking gun.
2. Cut the nozzle into an appropriate diameter at an angle of approximately 45° to 60°.
3. Place the nozzle into the caulking gun and screw tight.
4. Extrude the sealant with a single bead.
5. Tool the sealant bead with a clean and dry tool within the working time for a smooth finishing.

Caution:

1. DO NOT paste excess sealant onto the protective film of aluminium composite panel (ACP).

Clean Up

- ♦ Wet sealants can be cleaned up with acetone or mineral spirits.
- ♦ Cured sealants can only be removed mechanically.

Joint Design

- ♦ Joint dimension should be designed by taking into consideration the movement capability of the sealant and the anticipated joint movement
 - ♦ Generally the joint width-to-depth ratio is 2:1 for joint width ≥ 12 mm, or 1:1 for joint width < 12 mm
 - ♦ Joint width: minimum = 6 mm, maximum = 35 mm *
 - ♦ Joint depth: minimum = 6 mm, maximum = 12 mm
- * Sealing joints with larger joint width is possible but sealant may sag in vertical applications.

Coverage

Width	Depth	Coverage (290 ml) *	Coverage (600 ml) *
6 mm	6 mm	7.32 meter	15.15 meter
10 mm	10 mm	2.64 meter	5.45 meter
20 mm	10 mm	1.32 meter	2.73 meter
25 mm	12 mm	0.88 meter	1.82 meter

* The coverage figures shown above are approximate linear meter run based on 10% wastage assumption. Actual coverage may vary.

♦ Calculation formula: $X / [(Y \times Z) \times 1.1] = \text{Coverage}$

X = volume of cartridge (or sausage) in ml,

Y = joint width in cm, Z = joint depth in cm,

1.1 = 10% wastage assumption,

Coverage = linear meter run in cm per cartridge

Limitation

Not recommended for the following applications:

- ♦ Below waterline or permanent water immersion.
- ♦ Outdoor sealing/bonding adjacent to glass substrates.
- ♦ Polyethylene, polypropylene, polytetrafluoroethylene (Teflon), neoprene, and bituminous surfaces.
- ♦ Overcoated with
 - Alkyd resin paint - cure inhibition to the paint
 - Chlorinated paint - staining issue
 - Oil based paint - not compatible

Caution

Toxic to aquatic life with long lasting effect. Avoid release to the environment. Collect spillage. Keep out of reach of children. Contains aminosilane. May produce an allergic reaction. Safety data sheet available on request.



**AS-4002
Premier
Construction
Sealant**

Warranty Information

Alseal Marketing provides material warranty for a duration of 10 years if the product is used within its shelf life and in compliance with industrial standard application procedures. We disclaims liability for any consequential or incidental loss or damages caused by incorrect usage. The material warranty only covers the replacement of the product without the other costs incurred, if the failure is proven to be directly related to the product within the warranty period. Material warranty will only be available once customer submits all the necessary documents and information, and an official material warranty letter is issued by Alseal Marketing. Any claim of warranty shall be made directly to Alseal Marketing in writing. Alseal Marketing shall hold no responsibility until site inspection by representatives of Alseal Marketing to confirm the alleged failure has been carried out.

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