



Product Data Sheet

ASMACO FIRESTOP SILICONE SEALANT

One Component Fire Rated Silicone Sealant for Penetration Seals, internal, external Linear joints
Complies with UL 723, EN 1363-1:2020 & EN 1366-4:2021

Description: ASMACO FIRESTOP SILICONE SEALANT, is a one-component, neutral-curing, low-modulus fire-rated silicone sealant designed for penetration seals and internal and external linear joint sealing applications where fire resistance is required. It provides excellent adhesion to a wide range of common construction substrates, including stone, steel, masonry, brick, and wood, subject to substrate compatibility and application conditions. The sealant is suitable for fire-rated expansion and linear joints, façade weather-sealing applications, and small penetration sealing systems, including the sealing of pipes and cables passing through fire-rated wall assemblies. ASMACO FIRESTOP SILICONE SEALANT is tested/compliant, as applicable, with UL 723, EN 1363-1:2020, and EN 1366-4:2021, providing durable sealing performance and reliable fire protection for critical construction applications.



AREAS OF APPLICATION

The sealing of vertical and horizontal linear expansion joints and pipe and cable penetrations in fire rated walls also,

- Cladding and glazing
- Construction movement joints
- Steel, copper and EMT pipes
- Insulated steel and copper pipes
- Cable bundles
- Closed or vented plastic pipes
- HVAC penetrations

KEY PERFORMANCE PROPERTIES

- Cures at room temperature when exposed to moisture in the air
- One-part low modulus sealant
- Neutral cure, halogen-free
- Easy to apply non-slump
- Excellent unprimed adhesion to most porous and non-porous construction substrates
- Excellent weathering characteristics, including resistance to ozone, UV radiation and temperature extremes
- Long service life
- A fire resistance rating in integrity (E) and insulation (EI) of up to 240 minutes–4 hours can be achieved depending on the joint configuration
- Civil Defense Approval for UAE

PACKAGING / SUPPLYING

ASMACO FIRESTOP SILICONE SEALANT is available in 280 ml cartridges, 12 cartridges / carton.

Other packs like 600 ml sausage and pails can be supplied subjected to minimum order quantity.

STANDARDS

ASMACO FIRESTOP SILICONE SEALANT has been tested in:

▪ Caulking & Sealants Surface Burning Characteristics R41900	UL 723, ASTM E 84
▪ Linear Joint / Gap Seals according to	EN 1366-4: 2021
▪ Non-load bearing concrete, block walls,	BS EN 1364-1
▪ Penetration Seal	EN 1363 -1: 2020
▪ Non load bearing elements curtain wall full configurations,	BS EN 1364-3
▪ Non load bearing elements curtain wall part configurations,	BS EN 1364-4
▪ Door shutter & open able windows,	BS EN 1634-1
▪ Building material & structures,	BS 476 – 20
▪ Building material & structures,	BS 476 – 22, ISO 834-1, ISO 834-8,
▪ Doors & shutters,	ISO 3008
▪ Building Construction Glazed elements,	ISO 3009
▪ Waterproofing membrane,	ASTM D 570,
▪ European Union of Agreement, EUA tc	M.O.AT 30 & 31 para E, EN 12311-1
▪ Fire Rated, for 4 hours without any failure.	BS 476 Part 22: 1987 Amd 2014
▪ To achieve class 2,	BS 476 Part 7: 1997.
▪ Adhesives and Sealants Dubai Municipality Green Building requirements, Passes the test.	GBRS Clause 404.02
▪ Linear expansion joint configurations according to	EN1366-4 and to BS 476 Part 22/1987.
▪ Pipes and cables penetration systems according to	BS 476 Part 22 / 1987.
▪ UAE Civil Defense	Approved.



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METHOD OF APPLICATION

Cleaning:

Ensure all surfaces are clean, dry, sound, and free from frost. Remove any release agents, water repellents, laitance, dust, dirt, old sealants, or other contaminants that could affect adhesion. Metallic substrates should be degreased and grit blasted or washed to eliminate any impurities. Suitable solvents, such as ASMACO Cleaner 1, can be utilized for cleaning metallic substrates. For specific advice on cleaning particular substrates, please reach out to ANCHOR ALLIED FACTORY LLC's technical services department. When using any solvent, ensure adequate ventilation, and avoid heat, sparks, and open flames. Follow all precautions listed on the solvent container label or Product Safety Data Sheet, as recommended by the solvent manufacturer and applicable regulations.

Adhesion:

ASMCO FIRESTOP SILICONE SEALANT demonstrates excellent adhesion to most common construction substrates. If uncertain or when unusual substrates are involved, contact ANCHOR ALLIED FACTORY LLC's technical services department. Optionally, prime cement or concrete with ANCHOR PRIME P1 Primer for optimal adhesion. ANCHOR ALLIED FACTORY LLC conducts specific adhesion and compatibility testing on individual substrates to provide accurate recommendations. If any doubts arise regarding the use of ASMCO FIRESTOP SILICONE SEALANT, users are strongly advised to contact the technical services department.

Back-up Materials:

Various backer materials have been evaluated in different joint designs, including closed-cell polyethylene and polyurethane foam backer rods, ceramic fiber, and mineral wool. Mineral wool with a density of 45 kg/m³, lightly compressed to 10%, and closed-cell PU/PE backer rods with a density of 35 kg/m³ have been assessed. In penetration sealing applications, mineral wool has been evaluated. The supporting construction comprises a standard rigid aerated concrete wall (thickness: 150 mm, density: 550 kg/m³). Based on the required fire rating and joint/penetration design, the most suitable system can be selected by referring to the rating tables

Masking:

Mask areas adjacent to the joints with ASMACO tape to prevent substrate contamination and ensure a tidy sealant line. Remove masking tape immediately after tooling.

Application:

Do not apply ASMCO FIRESTOP SILICONE SEALANT to surfaces below 5°C (41°F) as it's impossible to guarantee a dry, frost-free surface at these temperatures. Table 1 provides an estimate of material consumption based on joint dimensions.

NOTE: The joint should maintain a minimum width of 6 mm. Achieving specific fire ratings depends on the selected joint configuration, as detailed in Table 1. Testing has been conducted on various joint types, as depicted in Figures, according to the specified configurations. The choice of joint configuration should be made based on project requirements. For additional information or support, please reach out to Anchor Allied's Technical Support Department.

COVERAGE RATE

The approximate linear meter sealant consumption per liter, per sausage, per cartridge 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)

Table 1

Joint Size W x D in mm	Liters / meter Run	600 ml / Sausage meter run	280 ml / Cartridges meter run
6 x 5	0.03	20.00	9.33
6 x 10	0.06	10.00	4.67
10 x 10	0.10	6.00	2.80
15 x 10	0.15	4.00	1.87
20 x 15	0.30	2.00	0.93
25 x 20	0.50	1.20	0.56

FIRE RATINGS

ASMCO Fire Stop Silicone Sealant has undergone rigorous fire rating testing and has demonstrated its ability to resist penetration for up to 4 hours without failure, according to specified joint configurations. The fire ratings, smoke & flame Spread were tested in accordance with EN 1363-1:2020, EN 1366-4:2021, BS 476 Part 22: 1987 Amd 2014, UL 723, Edition 11, and are applicable under specific testing conditions.

Users are advised to adhere to the manufacturer's recommendations to ensure that ASMCO FIRESTOP SILICONE SEALANT is suitable for their particular application. It's essential that all substrates used in the system possess an equivalent or higher fire rating to maintain the integrity of the fire protection system.

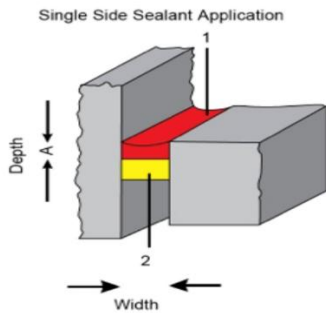
- All single side joints & Double side joint were tested on fire side
- Mineral wool, Density 100 Kg/m³, Polyethylene, Ceramic Fibre backing materials been used.
- It is recommended to use suitable backing material to ensure the full result.

Refer Fig Applications & Table 2,

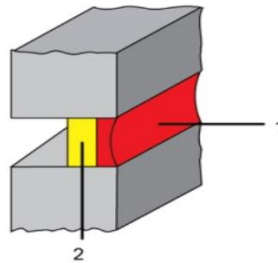


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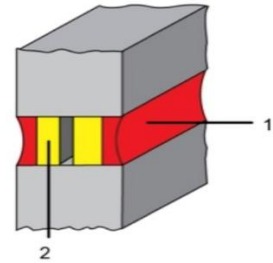
JOINT SEALING



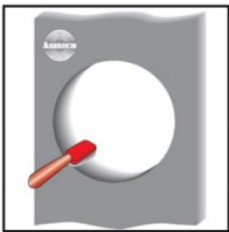
Single Side Sealant Application



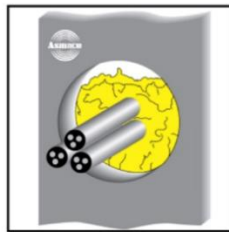
Double Sided Sealant Application



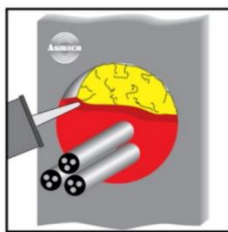
PENETRATION SEALING



1. Clean opening.



2. Pack mineral wool.
(If required)



3. Apply Fire stop sealant



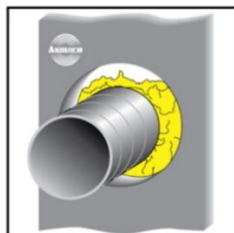
4. Smooth Fire stop sealant



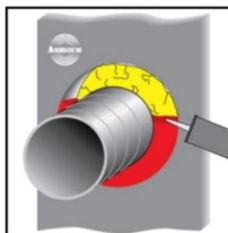
5. Leave completed seal
undisturbed for 48 hours.



1. Clean opening.



2. Pack mineral wool.
(If required)



3. Apply Fire stop sealant



4. Smooth Fire stop sealant



5. Leave completed seal
undisturbed for 48 hours.

SN	DESCRIPTION
	BACKING MATERIAL
	FIRESTOP SILICONE SEALANT



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TABLE 2:

Joint Width	Joint Depth	Backing Material	Joint Type	Integrity Rating
SINGLE SIDE				
6 mm	10 mm	8 mm Ceramic Fiber	Single side	4 hours
10 mm	10 mm	12 mm Ceramic Fiber	Single side	4 hours
25 mm	20 mm	30 mm Ceramic Fiber	Single side	4 hours
DOUBLE SIDE				
6 mm	5 mm	8 mm Polyethylene Foam	Double side	4 hours
15 mm	10 mm	20 mm Polyethylene Foam	Double side	4 hours
20 mm	15 mm	25 mm Polyethylene Foam	Double side	4 hours
25 mm	20 mm	30 mm Polyethylene Foam	Double side	4 hours
6 mm	5 mm	8 mm Ceramic Fiber	Double side	4 hours
15 mm	10 mm	20 mm Ceramic Fiber	Double side	4 hours
20 mm	15 mm	25 mm Ceramic Fiber	Double side	4 hours
25 mm	20 mm	30 mm Ceramic Fiber	Double side	4 hours

HEALTH & SAFETY

Protective clothing such as gloves and goggles should be worn while applying **ASMACO FIRESTOP SILICONE SEALANT**. In case the material splashes to the skin or eyes wash the same with fresh water immediately.

In critical cases seek medical assistance.

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, ISO 14001, ISO 45001 and ISO 50001.

STORAGE, SHELF LIFE & HANDLING

ASMACO FIRESTOP SILICONE SEALANT is temperature sensitive and should be stored in a cool, dry, and covered area, protected from direct sunlight, heat sources, and excessive ambient temperatures. Prolonged exposure to elevated temperatures, including storage in shaded but excessively hot areas, may accelerate product ageing, reduce the stated shelf life, and adversely affect application and performance characteristics.

In hot climatic conditions, **ASMACO FIRESTOP SILICONE SEALANT** must be stored at temperatures below 30°C. Avoid prolonged exposure to extreme temperature fluctuations during storage and transportation.

When stored in its original, unopened packaging under the recommended temperature conditions, the product has a shelf life of up to 12 months from the date of manufacture.

Stock should be managed and consumed on a **First-In, First-Out (FIFO)** basis to ensure optimum shelf life and consistent product performance.

CERTIFICATIONS



UL Classified – Certificate of Constancy of Performance (CoCP). Product evaluated by UL Solutions in accordance with UL 732 & EN 1363-1:2020, EN 1366-4:2021, Constancy of performance verified under factory production control.



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TECHNICAL PROPERTIES

PROPERTIES	TYPICAL VALUES	TEST STANDARDS
Color	White/Black/Grey	—
Consistency	Smooth Paste	ASTM C1184 – 23
Application Temperature	+5°C — +40°C	ASTM D 6411
Service Temperature	-50 °C — +160°C	ASTM D 6411
Working Time	15 min	ASTM C1184-18
Slump	Nil	ASTM D 2202
Density	1.35	ASTM C 1115 - 17
Tack Free Time @ RT	30 min	ASTM C 679
Hardness Durometer	28	ASTM C 661
Curing Rate (23°C, 50% R.H)	2mm /day	ASTM D 5893-04
Joint Movement Accommodation	50%	ASTM C 719
Fire Resistance Rating	240 min	BS 476 Part 22 1987 Amd 214
TVOC	≤ 9.0µg/m ³	CDPH Version 1.2
VOC g/L	<16	USEPA -24
VOC g/L	< 16	SCAQMD Rule 1168
Tensile Strength	1.4 N/mm ²	ASTM D 412
Elongation at Break	>300 %	ASTM D 412
Elastic Recovery	>90	ASTM C 1184
Secant Tensile Modulus	0.4 N/mm ²	ASTM D 412

Properties listed are based on laboratory-controlled tests, all values given are subject to 5-10% tolerance.

Regional Compliance Notice

Please note that regulatory requirements may vary from one region to another. As a result, product information and recommended applications may differ between countries. For accurate and up-to-date details on product specifications and approved uses, and for any technical guidance, please contact Technical Department of ANCHOR ALLIED FACTORY L.L.C. SHARJAH, UAE.

Disclaimer

The technical information, data, and recommendations provided by ANCHOR ALLIED FACTORY L.L.C. SHARJAH, UAE are supplied in good faith based on current knowledge and experience and are intended for general guidance only. Product performance may vary due to factors beyond ANCHOR ALLIED FACTORY L.L.C. SHARJAH, UAE 'S control, including materials, substrates, environmental conditions, and methods of application. Except as expressly agreed in writing, ANCHOR ALLIED FACTORY L.L.C. SHARJAH, UAE makes no representations or warranties, express or implied, including, without limitation warranties of merchantability or fitness for a particular purpose. To the extent permitted by applicable law, ANCHOR ALLIED FACTORY L.L.C. SHARJAH, UAE shall not be liable for any loss or damage arising from the use of, or reliance upon the products or this information. Users are responsible for verifying the product's suitability for the intended application and for conducting appropriate testing under actual project conditions. Product specifications may be amended without prior notice. All sales are subject to ANCHOR ALLIED FACTORY L.L.C. SHARJAH, UAE current Terms and Conditions of Sale and Delivery. Users must refer to the latest applicable Product Data Sheet prior to use.



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