



Product Data Sheet

ASMACRYL 55

High-Quality Fire-Resistant Acrylic Sealant Complies with UL 723, EN 1363-1:2020 & EN 1366-4:2021

Description: ASMACRYL 55 is a single-component, gun-grade fire-resistant sealant formulated with high-quality acrylic emulsions and specially selected additives. Designed to provide controlled flexibility, it is suitable for fire-resistant sealing of joints between construction elements subject to moderate movement and stress. **ASMACRYL 55 has been tested in accordance with EN 1363-1:2020 and EN 1366-4:2021 for fire resistance of linear joint seals.** When exposed to elevated temperatures above +120°C, the sealant expands to help form an effective barrier against the passage of **fire, smoke, and gases**. Depending on the tested joint configuration and application conditions, it can provide **up to 4 hours of fire resistance**, while offering easy application, reliable adhesion, and durable joint sealing performance.



AREAS OF APPLICATION

ASMACRYL 55 is versatile and designed for fire-rated movement and connection joints on both porous and non-porous substrates. It is suitable for various applications including:

- Sealing around doors and window frames.
- Sealing around ventilation grills.
- Joints between ceilings and wall joints in block work where low movement is expected.
- Sealing of duct holes and similar openings.
- Fire retardant applications.

- Fire retardant applications.
- Suitable for areas where there is a potential risk of fire, as it is self-extinguishing.

KEY PERFORMANCE PROPERTIES

- Excellent weatherability, ensuring durability under various environmental conditions.
- Excellent tooling characteristics for professional use, facilitating precise application.
- Non-corrosive to metals, ensuring compatibility with metal substrates.
- Suitable for alkaline substrates such as concrete, mortar, and fibrous cement, providing versatility in application.
- Matt finish, contributing to a visually appealing aesthetic.
- Excellent adhesion on most substrates without primer, enhancing convenience and efficiency in use.
- Solvent-free, resulting in low volume shrinkage during vulcanization, ensuring a durable and reliable seal.
- Almost odorless, minimizing discomfort during application.
- Non-sag, maintaining its shape and integrity when applied vertically or overhead, ensuring consistent performance.

PACKAGING / SUPPLYING

ASMACRYL 55 is available in 280 ml cartridges, 24 cartridges / carton.

STANDARDS

ASMACO FIRESTOP SILICONE SEALANT has been tested in:

▪ Caulking & Sealants Surface Burning Characteristics R41900	UL 723, (ASTM E 84)
▪ Penetration Seals:	EN 1363-1:2020
▪ Linear Joint / Gap Seals according to	EN 1366-4: 2021
▪ Non-load bearing concrete, block walls,	BS EN 1364-1
▪ 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

Surface Preparation

- Ensure the joint or gap is clean, dry, and free of dust, oil, grease, or loose particles.
- Remove old sealant or debris completely.
- For porous surfaces (concrete, masonry), light brushing or air blowing is recommended.
- If required, install backer rod (PE foam rod) to control sealant depth.

Tools & Materials Required

- Acrylic fire-rated sealant (cartridge or sausage type)
- Caulking gun
- Backer rod (if gap depth is excessive)
- Spatula or finishing tool
- Masking tape
- Knife / cutter
- Cleaning cloth

A. Application in Linear Joints (Wall – Wall / Wall – Slab / Slab – Slab)

Step-by-Step Procedure:

Step 1 – Joint Preparation

- Check joint width and depth.
- Insert backer rod if joint depth exceeds recommended depth (usually depth = ½ of width).
- Apply masking tape along edges for clean finishing.

Step 2 – Sealant Application

- Cut nozzle at 45° angle as per required bead size.
- Insert cartridge into caulking gun.
- Apply sealant evenly, ensuring full contact with joint sides.
- Avoid air pockets or voids.
- new construction and refurbishment projects

Step 3 – Tooling & Finishing

- Tool the sealant immediately using spatula or wet finger.
- Remove masking tape before skin formation.
- Allow curing as per manufacturer's data (typically 24–48 hours).

B. Gap Filling Around Pipes (Penetration Sealing)

Step-by-Step Procedure:

Step 1 – Inspection

- Confirm pipe material (PVC, CPVC, steel, copper).
- Measure annular space (gap between pipe and wall/slab).

Step 2 – Backing Material Installation

- Insert mineral wool / rockwool tightly into the annular gap.
- Maintain required depth (usually 25–50 mm depending on fire rating).

Step 3 – Sealant Application

- Apply acrylic fire-rated sealant over the mineral wool.
- Ensure sealant thickness as per fire test detail (commonly 10–20 mm).
- Seal continuously around the full circumference of the pipe.

Step 4 – Finishing

- Smooth surface properly.
- Ensure no cracks or gaps remain

Important Technical Guidelines

- Follow tested system details (BS / EN standards if specified).
- Maintain required sealant depth and backing material density.
- Do not apply below recommended temperature (usually +5°C).
- Acrylic fire sealant is generally suitable for: Static joints
Small movement joints (limited flexibility)

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

ASMCRYL 55 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 ASMCRYL 55 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.

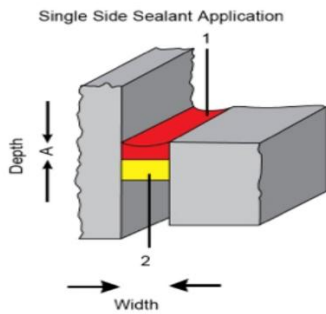
- All single side joints & Double side joint were tested on fire side
- Mineral wool, Density 100 Kg/m³, Polyethylene, Ceramic Fibre backing materials been used.
- It is recommended to use suitable backing material to ensure the full result.

Refer Fire Applications & Table 2,

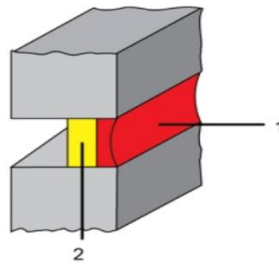


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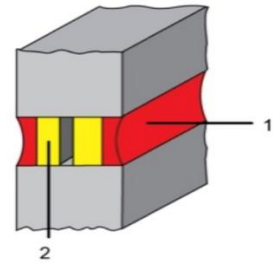
JOINT SEALING



Single Side Sealant Application



Double Sided Sealant Application



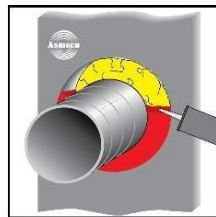
PENETRATION SEALING



Surface Cleaning



Back-up Material as specified



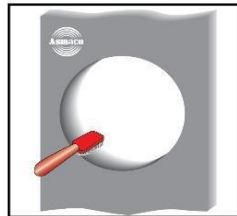
Apply Asmacryl 55 Firestop



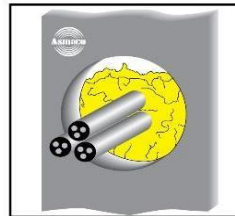
Smooth Asmacryl 55 Firestop



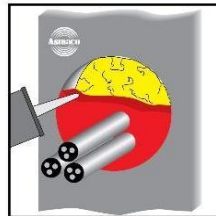
Leave it for 48 hours to cure



Surface Cleaning



Back-up Material as specified



Apply Asmacryl 55 Firestop



Smooth Asmacryl 55 Firestop



Leave it for 48 hours to cure

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
DOUBLE SIDE				
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 **ASMACRYL 55**. 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 originate 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

ASMACRYL 55 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, **ASMACRYL 55** 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 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	—
Consistency	Smooth Paste	—
Base	Acrylic Dispersion	—
Service Temperature	- 20°C — +80°C	—
Application Temperature	+5°C — +45°C	—
Skin Over Time	2 — 5 min (25°C and 50% R.H)	ASTM C 920 -18, ASTM C 679-15
Tack Free Time	>30 min @ 25°C	ASTM C 679
Paint Ability	Yes	—
UV Resistance	No Deterioration	ASTM G 53
Fire Rating	240 min	EN 1366-4:2021
Slump Resistance	Nil	ASTM D 2202
Density, g/m ³	1.67 ±0.05	ASTM D 1475
Hardness Shore A	~ 60	ASTM D 2240

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 ANCHOR ALLIED FACTORY L.L.C. SHARJAH, UAE Technical Department.

Disclaimer

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