

3M Science.
Applied to Life.™



Achieve a superior seal.

Polysulfide sealants for
aerospace applications.

Polysulfide sealants



In a world where your timelines are tighter and your budgets are smaller, finding ways to reduce costs and improve productivity, without sacrificing quality, is a huge challenge. At 3M, we provide a range of polysulfide sealants that are lightweight, fast curing and high performance, enabling streamlined production and reduced fuel consumption – the kind of savings that go straight to your bottom line.

Sealant part number configuration

Product number	Class	Application time (hours)
AC-251	B	2
AC-350	A	1/2

Sealant classification

Class	Usage and application
A	Used for sealing fasteners. Brush applied.
B	Used for fillet and injection seals. Most are non-flowing and usually applied with a sealant caulking gun.
C	Used for fay surface seals. Applied using a roller or a sealant gun.

Common applications

Application	Description
Fay surface seal	Seal used between two mating surfaces such as a lap seal.
Fillet seal	Seal applied to edge of two mating surfaces, then smoothed to a radius.
Fastener sealing	Sealing of screws, nuts, bolts etc.
Butt joint seal	Seal between two abutting edges on mold-line.
Mold-line fairing	Seal used to fair-out mismatch on mold-line.
Form-in-place (FIP) seal	Seal used around access panel doors.

Definition of terms

Application life:

The length of time that the mixed compound remains at a consistency suitable for application with spatula or caulking gun. Application life is always measured at a standard temperature of 25°C with a relative humidity level of 50%. In general, for every 10°C rise in temperature, the application life is halved; for every 10°C drop, it is doubled. High humidity levels during the mixing process will shorten application life.

Tack-free time:

The length of time after which a mixed sealant will no longer tightly adhere to L-LP-690 standard low density polyethylene film.

Cure time:

The length of time it takes for the sealant to reach 30A hardness. It depends on three factors: remaining application life, temperature, & relative humidity.

Adhesion promoters

3M's range of adhesion promoters are engineered to speed up and promote the adhesion of sealants to particular surface types. These robust adhesion promoters enable faster initial adhesion build rate of polysulfide and polythioether sealants to help reduce your process time. Our one component formulas needs no mixing and ensure easy application.

Product ID	Type	Product attributes
AC-132	Solvent-based	Promotes the bonding of either polysulfide or polythioether sealants to metal and organic substrates
AC-137	Solvent-based	Adhesion promoter safe for use on polycarbonate, acrylic and glass substrates (as well as metal and organic substrates)
AC-160	Water-based	Promotes the bonding of either polysulfide or polythioether sealants to metal and organic substrates



Products

Integral fuel tank polysulfide sealants

These two-component, manganese dioxide curing polysulfide sealants have outstanding resistance to aviation gasoline and jet fuel, as well as resistance to chemicals and petroleum products commonly used in the aircraft industry and fuel tank applications. These high performance polysulfide sealants maintain flexibility and bond strength on most metal substrates under extremes of temperature, weathering and stress.

Product name	Grade	Density	Minimum application life	Tack free time (hours)	Cure time (hours)	Non-volatile content (%)	Contains chromate	Non-chromate corrosion inhibitive
AC-350	A-1/2	1.4	30 mins	3	4	88	✗	✗
	A-2	1.4	2 hours	8	12	88	✗	✗
	B-1/2	1.4	30 mins	2-3	2-3	98	✗	✗
	B-2	1.4	2 hours	7-8	7-8	98	✗	✗
	B-4	1.4	4 hours	32-36	32-36	98	✗	✗
AC-370	B-1/2	1.3	30 mins	6-7	6-7	97.5	✗	✗
	B-2	1.3	2 hours	7-8	8-10	97.5	✗	✗
AC-380	B-1/2	1.1	30 mins	5	5	97	✗	✗
	B-2	1.1	2 hours	7-8	8-10	97	✗	✗

Cabin pressurisation | Fuselage polysulfide sealants

These sealants provide an effective barrier against corrosion on aluminum and between dissimilar metals. Resistant to chemicals, hydraulic fluids and petroleum products, they maintain flexibility and bond strength on most metal substrates under extremes of temperature, weathering and stress.

Product name	Grade	Density	Minimum application life	Tack free time (hours)	Cure time (hours)	Non-volatile content (%)	Contains chromate	Non-chromate corrosion inhibitive
AC-730	B-1/2	1.52	30 mins	4	6 hours	98	✗	✓
	B-2	1.52	2 hours	16	24 hours	98	✗	✓
	C-8	1.5	8 hours	24	7 days	90	✗	✓
	C-48	1.5	48 hours	168	5 weeks	90	✗	✓
AC-735	B-1/2	1.1	30 mins	5	5 hours	97	✗	✓
	B-2	1.1	2 hours	10	10 hours	97	✗	✓
AC-770	B-1	1.1	1 hour	3-4	5-6 hours	98.5	✗	✗
	B-2	1.1	2 hours	7-8	9-11 hours	98.5	✗	✗

Speciality polysulfide sealants

3M have developed highly specialised sealants that make them ideal for particular applications such as access door, canopy and windshield, and quick repair fuselage/fuel tank sealing.

Product name	Type	Grade	Density	Minimum application life	Tack free time (hours)	Cure time (hours)	Non-volatile content (%)	Contains chromate	Non-chromate corrosion inhibitive
AC-251	Canopy & Windshield	B-1/2	1.64	30 mins	4	4	98	✗	✗
	Canopy & Windshield	B-1	1.64	1 hour	5	7	98	✗	✗
	Canopy & Windshield	B-2	1.64	2 hours	8	9	98	✗	✗

Roll-On Nozzles

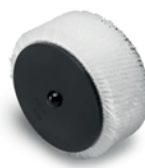
3M Roll-On Nozzles are made from durable, precision plastic injected material with a nylon nap made specifically to apply adhesives and sealants over a larger area. Choose between a 1" or 2" size width of nozzle depending upon your application requirements.



Roll-On Nozzle, 1"



Roll-On Nozzle, 2"



Roll-On Replacement, 1"



Roll-On Replacement, 2"



- Lighter** Low density formulations enable light-weight components and reduce overall fuel consumption costs.
- Safer** Less hazardous waste disposal costs and no unnecessary employee exposure to hazardous solvents (VOCs).
- Faster** Fast cure, low/no solvent formulations ensure reduced re-work and productivity savings.

Automotive and Aerospace Solutions Division

3M United Kingdom PLC
3M Centre, Cain Road
Bracknell, Berkshire RG12 8HT
Tel: 0870 6080 060
www.3M.co.uk

3M Ireland Limited
The Iveagh Building
The Park, Carrickmines
Dublin 18
Tel: 1800 303 437

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