flamemaster

SOCOMORE Aerospace Sealants



Aerospace Sealing & Sealant removal

A premier specialty chemical manufacturer since 1942

Aerospace Sealing & Sealant removal



FLAMEMASTER has operated continuously for over eighty years. Through its innovation and dedication to problem-solving, FLAMEMASTER has become one of the main suppliers of aircraft sealants for major airplane manufacturers and MRO markets, in both the military and commercial spaces. We have **ISO 9001:2015 and AS9100D certifications** and have held a **Nadcap (Sealants) accreditation** since the inception of the program.

FLAMEMASTER **has formulating and compounding capabilities for sealants, adhesives, and coatings** made from polysulfides, epoxies, silicones, and rubbers, among others. The product line includes corrosion-resistant materials, mid- and lightweight sealants, electrical potting compounds, and thermal barriers.



FLAMEMASTER operates in its 54,000+ square foot facility in Pacoima. It was one of the first in the area to be solar-powered. Our decision to go "green" has enhanced the work environment and encourages employees and affiliates to do the same.

FLAMEMASTER joined SOCOMORE in 2023. Our company benefits from Socomore's global presence, expertise in aerospace materials, and strong customer relationships to introduce our products in new markets, to strengthen our sales, and fully utilize our production capabilities. It also gives FLAMEMASTER access to a full range of sealant removal systems designed for use with commercial, military, fixed, and rotary aircraft. Joining SOCOMORE brings additional R&D to help stay ahead of the ever-changing sealant market. This partnership marks an important milestone for the company, providing a large platform to continue our growth and create innovative solutions for the aerospace sealant market. We are in a strong position to support the specific needs of aircraft manufacturers worldwide.

Aerospace Sealants

Fuel Tank & Fuselage

	Specifications*	Color	Description and use
CS 135 NEW	AMS-S-8802 AMS 3276 FMS 1044	Gray	**Midweight fuel tank sealant –** This fast-curing, medium density (1.4 spg, max) MnO2-cured polysulfide sealant is also able to withstand higher temperatures than standard AMS-S-8802 sealants (excursions to 360 °F). Used for sealing fuel tanks as well as the aircraft fuselage.
CS 143 NEW	AMS 3265 MIL-PRF-81733 FMS 3104	Gray	**Non-chromate corrosion inhibitive sealant** – This fast-curing, medium density (approximately 1.45 spg) MnO2-cured polysulfide contains an effective, non-chromate corrosion inhibitor package. Used for sealing and coating metal components on weapons and aircraft systems for protection against corrosion.
CS 415 NEW	MIL-S-38228 Flamemaster standard	Aluminum	**Aluminum exterior sealant** – This fast-curing, aluminum-containing, MnO2-cured polysulfide fuselage sealant, used for sealing external seams, depressions, and gaps on aircraft for weather-tightness and aerodynamic smoothness. Withstands jet fuels and weathering.
CS 3204	AMS-S-8802 Type 2 STM40-112, 299-947-107 et al.	Gray	**Integral fuel tank sealant** – An industry standard, this MnO2-cured polysulfide sealant is used for sealing and repairing integral fuel tanks, cabin pressure sealing, and aerodynamic smoothing, faying surface sealing, wet installation of fasteners, and other uses. Service temperature is -65 °F to +250 °F (-54 °C to 121 °C).
CS 3205	AMS-S-8802 Type 1	Gray	**Integral fuel tank sealant** – As an AMS-S-8802 Type 1 sealant, this dichromate-cured polysulfide sealant is used for the same applications as CS 3204. However, the dichromate cure is not sensitive to humidity so is often a choice in dry or desert climates.
CS 3206	AMS-S-83318	Gray	**Quick repair fuel tank sealant** – This MnO2-cured polysulfide sealant is typically used for quick repair of integral fuel tanks and fuel cell cavities. With a relatively short application time, it will cure as low as 20 °F (-6.5 °C).
CS 3210	STM 40-107	Gray	**Low density pressurized cabin sealant** – A low specific gravity (1.0) MnO2-cured polysulfide void filler ; use of this material can result in substantial weight savings over conventional sealant.
CS 3213	MIL-PRF-81733 Class 1, STM 40-111F, STM 40-112M	Gray	**Corrosion inhibitive sealant** – A chromate-containing, MnO2-cured polysulfide used for sealing and coating metal components on weapons and aircraft systems for protection against corrosion. Service temperature is -65 °F to +250 °F (-54 °C to 121 °C). Application times from 1/2 to 96 hours
CS 5500 N	AMS 3276 FMS 1044 FMS 3055	Gray	**High temperature fuel tank sealant** – A MnO2-cured polysulfide sealant able to withstand higher temperatures than the standard AMS-S-8802 sealants (excursions to 360 °F). Used for sealing fuel tanks as well as the aircraft fuselage.

**Not all products or application lives are on QPL; some specifications have no QPL. Consult Sales or Technical Service.*

Electrical Sealants

CS 3100	MIL-PRF-8516G – Types I and II	Tan	**Potting and sealing compound** - This lead dioxide-cured polysulfide material protects electrical connectors and components from moisture, fuels, and dirt. Has excellent volume and surface resistivities.
CS 3105	Flamemaster specification	Tan	**Junction box sealer** - This modified potting compound is a thixotropic, lead dioxide-cured polysulfide sealant suitable for use in edge seal encapsulation. Easily applied with an extrusion gun or spatula.
CS 3209	STM 40-109	Gray	**Electrically conductive sealant** - Designed to conduct static electricity, this MnO2-cured polysulfide material is used as a faying surface sealant. Also meets acceptance requirements of AMS-S-8802.
CS 3802	SPC-34076 TS10425	Brick Red	**Room temperature silicone** - This thixotropic RTV silicone sealant is a room temperature, chemically curing material useful as an insulating coating and thermal barrier to retard heat transfer.
CS 3808	Boeing BMS 8-68	Brick Red	**Room temperature silicone** - This silicone-based material Class A material is similar to CS 3802, also offering excellent high temperature performance, good stability, and easy application. Used for aircraft, missile, and electronic applications.

Optical & Windshield sealants

CS 247 NEW	Flamemaster Specification (based on AMS 3333)	Black	**Aircraft windshield sealant** - A MnO2-cured polysulfide material is used for setting or repairing windshields and transparencies made of glass, acrylic, or polycarbonate in composite or metal frames.
CS 3201	AMS 7124	Black or Tan	**Sealing compound for aircraft structures** – This lead dioxide-cured polysulfide compound has excellent adhesion to metals. Used to seal aircraft structures against the passage of air, liquids, and vapors.
CS 3202	A-A-59293 (formerly MIL-S-11031)	Black	**Optical sealing compound** – A lead dioxide-cured polysulfide material used for bonding glass (or metal) to metal in optical instruments or fire control instruments. The standard application time is about 3 hours ; materials with shorter application times are available.
CS 3247	Flamemaster Specification (based on AMS 3333)	Black	**Aircraft windshield sealant** - This MnO2-cured polysulfide material is used for setting or repairing windshields and transparencies made of glass, acrylic, or polycarbonate in composite or metal frames.



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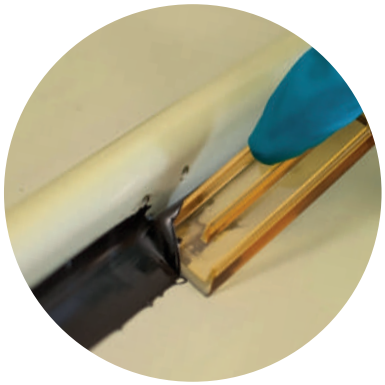
Specialty Sealants

Product	Primary application	Specifications*	Color	Description and use
CS 1900	**Firewall sealant**	MIL-S-38249 Type I	Black	An elastomeric epoxy/amine material used for sealing firewall structures with a service operating temperature range of -65 °F to +400 °F (-53 °C to 204 °C) with flash temperatures to 2,000 °F (1 093 °C).
CS 3330	**Access door sealant**	AMS 3284 Type I	Red	Type 1 low adhesion sealants do not contain corrosion inhibitors. This MnO2-cured polysulfide material can be used as a strippable fillet for integral fuel tanks and pressurized cabins as well as a gasket for removable parts.
CS 3330 CI	**Access door sealant**	AMS 3284 Type II	Purple	Similar to CS 3330, but also contains a non-chromate corrosion inhibitor (NCCI). Also used as an access door sealant for integral fuel tanks and pressurized cabins, as a strippable fillet, and as a gasket for removable parts.
CS 3600	**Fuel tank slosh coating**	AMS-S-4383	Red	This rubber-based, one component, air-drying material is designed as a topcoat or barrier coating for integral fuel tank sealants and coatings. May be used for temporary repair of aircraft fuel tanks using a fill-and-drain technique or as a bonding agent for synthetic rubber, metals, etc. Resistant to exposure from jet fuel or avgas, but not suitable for use with motor fuels containing alcohols.
CS 4406	**Void-filling**	STM40-106	Gray	This MnO2-cured polysulfide sealant was designed to plug through holes in airframe structure to maintain the pressure boundary. Excellent adhesion to aluminum, magnesium, titanium, steel, and other materials.



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Sealant removal & tools



A range of solutions, tools, and equipment designed for the quick and easy removal of **cured, semi-cured and uncured sealants, adhesives, and other surface residues** commonly encountered in the aerospace industry.

Composite scrapers & tools:

- Remove cured sealants, adhesives, and adhesive tape residues.
- Comply with most OEM process specifications, including BAC 5000 (POM scrapers).
- Apply sealants, adhesives & liquid shim materials.

Accessories:

- A range of ergonomic accessories for operator comfort and safety.
- Help prevent carpal tunnel syndrome.

Sharpening devices for fluted SkyScraper:

- Sharpen fluted SkyScraper multiple times at the point of use, saving time and money.

Chemical sealant removers & surface cleaners:

- Break down sealant resistance or bonding, making removal easier.
- Clean surfaces both before and after sealant application.

List of approvals

AIRBUS • BAE SYSTEMS • BOEING • BOMBARDIER • HAWKER BEECHCRAFT / RAYTHEON • LOCKHEED MARTIN • MCDONNELL DOUGLAS • NATO • ROLLS ROYCE • AND MORE...

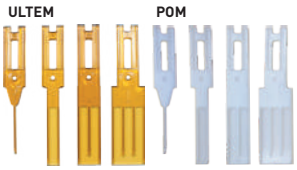
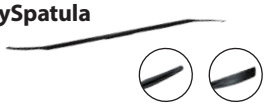
Chemical sealant removers and surface cleaners

Break down the sealants resistance or bond, making it easier to remove.
Can also be used for surface cleaning operations

		Format	Application	Flash point	Product
Cleaners and pre-saturated wipes for uncured/wet sealant	Solvent-based (100% VOC content)	Pre-saturated on SOCOSAT and SATWIPES	Surface cleaning/ degreasing before paint, bond, and sealant application	30-40 °C 86-104 °F	**DIESTONE DLS**
				40-50 °C 104-122 °F	**DIESTONE DLV DS-108**
				50-60 °C 122-140 °F	**DIESTONE SR**
	Water-based (very low VOC content)	Only pre-saturated on SKYWIPES	General cleaning - Lockheed Martin, Rolls-Royce, US military, NATO approved	N/A	**SKYWASH**

Scrapers & tools

Use to remove cured sealants, adhesives and adhesive tape residues, and apply sealants

		Materials	Sizes	Benefits	Product
Sealant & Adhesive removal	Remove cured sealants and adhesives	ULTEM POM	1.45" / 37 mm 0.98" / 25 mm 0.55" / 14 mm 0.12" / 3 mm	• Will not damage or scribe/ scratch substrates or painted surfaces • Can be re-sharpened multiple times with the SkyMill & SkyEdgit • Extremely cost effective	**Fluted SkyScraper** 
Sealant application	Apply sealants, adhesives and liquid shim materials	PA / PP	7.25" / 184 mm 9.5" / 241 mm	• Easy application of sealants and adhesives	**SkySpatula** 
		ULTEM PEEK	N/A	• Spread & smooth sealants and adhesives (PEEK: rigid, ULTEM: soft)	**SkySpreader** 
		PP	N/A	• Fluorescent • Two smoothing edges: 9 mm and 25 mm	**SkySmoother** 

Sharpening devices for fluted SkyScraper

Sharpens fluted SkyScraper multiple times, saving time by enabling the user to sharpen tools at point of use

	Benefits	Product
Battery operated mechanical device for workstations	• Sharpens fluted SkyScraper up to 20 times • Portable, durable, rechargeable, lightweight, and high quality • Dust receptacle can be quickly emptied using a vacuum system • Designed to withstand the knocks of daily use • Safety strap attaches securely to a belt	**SkyMill Revolution** 
Handheld manual sharpening device	• Ensures the blade edge remains sharp, optimizing cutting efficiency during use • Use in conjunction with the SkyMill Revolution • Dust collector to mimize the risk of FOD • Belt clip available	**SkyEdgit** 

More ergonomic accessories are available for operator comfort and safety. Contact sales.

Product Packaging

FLAMEMASTER sealants are available in the following sizes, with some exceptions (contact sales):

- 2.5 oz and 6 oz injection kits
- ½ pint, pint, quart, and gallon can kits
- 5-gallon pail kits
- 55-gallon drum kits



We supply

AIRBUS • AIRBUS HELICOPTERS • BELL • BOEING • BOMBARDIER • CESSNA • GE • LOCKHEED MARTIN • PRATT&WHITNEY • SAFRAN • US AIR FORCE • US NAVY • AND MORE...

FLAMEMASTER
13576 Desmond Street
Pacoima, CA 91331
USA

Phone: 818 890-1401
Fax: 818 890-6001
Email: sales@flamemaster.com

SOCOMORE
ZI du Prat - Avenue Paul Duplaix
CS 23707 - 56037 Vannes Cedex
France

Phone: +33 (0)2 97 63 05 01
Email: europe@socomore.com
Web: socomore.com

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