

CS 3600

Technical Data Sheet

FUEL-RESISTANT BUNA N TOPCOAT/ADHESIVE

Description

CS 3600 is a Buna N-based protective coating suitable for a wide variety of purposes, especially where resistance to oils, gasoline, and aromatic fuels is desired. Primarily used as a topcoat or barrier coat for integral fuel tanks, CS 3600 can also be used for temporary repair of aircraft fuel tanks using a “fill-and-drain” technique (“slosh coat”) as well as a bonding agent for synthetic rubber, metals, glass, and many plastics.

NOTE: Although cured CS 3600 is resistant to exposure from both jet fuel and aviation gas, it is not recommended for use with fuels containing alcohols, including ethanol.

- One-component, solvent-based Buna N coating/adhesive
- Cures at room temperature by solvent evaporation
- After curing, CS3600 is a tough but flexible film
- Cured material has a service temperature range of -100°F to 250°F (-73°C to 121°C).
- Uncured CS 3600 is a low viscosity, syrup-like solution which can be applied by brush, spray, dipping, or the “fill-and-drain” technique.
- CS 3600 is qualified to SAE AMS-S-4383.

For information on other qualifications or the availability of modified products, contact Sales.

The following technical information and data are typical for the material but should not be used for specification or acceptance purposes. Testing was performed in accordance with AMS-S-4383.

Typical Performance Properties

Cured 14 days at 77°F (25°C) and 50% relative humidity

Specific gravity	0.88
% Nonvolatile material	20%
Recoating (as topcoat over AMS-S-8802 sealant)	No lifting, cracking, blistering or loss of adhesion; good bonding
Low temperature flexibility	Pass at -65°F (-54°C)
After 48 hours in Ref. Fuel B at 120°F (49°C); air dried 72 hours at 180°F (82°C)	No hardening, blistering, checking, cracking, shrinkage, loss of adhesion or flexibility
20 days in Ref. Fuel B / 3% salt water at 120°F (49°C)	No softening, blistering, corrosion, or loss of adhesion;
Resistance to hot oil -14 days at 250°F (121°C)	No cracking, flaking, or loss of adhesion
Fuel contamination	0.0 mg/100 ml; no discoloration
Sealing compound protection -100 days in Ref. Fuel B at 120°F (49°C)	Initial hardness 44A; final, 42A; no cracking, checking, or loss of adhesion of topcoat

Typical Application Properties

At 77°F (25°C) and 50% relative humidity

Color	Red
Base viscosity (Brookfield #2 @ 10 rpm)	900 - 1000 cps (0.9 - 1.0 Pa·s)
Tack-free time	30 minutes
Film quality (brush and dip coats)	Smooth, uniform, no sagging, bubbles, pinholes or cracks
Film thickness (dry) after dip coat	0.9 mil (0.023 mm)

Peel strength

First value is pli; second value is N/25 mm All 100% cohesive failure	
AMS 4049 (AlClad) - After 48 hours in Ref. Fuel B at 77°F (25°C)	25 (109)
Over AMS-S-8802 sealant	16 (70)

Surface Preparation

To obtain good adhesion, surfaces must be free of all traces of oil, wax, grease, dirt or other contaminants. A progressive cleaning process is recommended. Use an appropriate solvent and lint-free clothes. Pour solvent on the cloth to keep the solvent supply clean. Clean a small area at a time and wipe the surface dry with a second clean cloth. See SAE AIR 4069 for additional information on surface preparation. For Socomore's full line of solvents and wipes used for aerospace sealant preparation, and their customer approvals, visit www.Socomore.com.

Storage

Unmixed CS 3600 has a shelf life of at least 6 months from date of packaging when stored below 80°F or below in the original, unopened package. Refrigerated shipping is not required.

CS 3600 contains solvent so containers should be kept tightly closed to prevent solvent loss. The material does not separate under normal conditions, but can be stirred gently to ensure homogeneity if care is taken to minimize air entrapment.

Topcoat application notes

When using CS 3600 as a fuel tank coating, first ensure all surfaces have been cleaned properly, then brush the material on evenly.

For smaller tanks, a “fill-and-drain” procedure may be used. After cleaning, add the CS 3600 to the tank and rotate the tank slowly until all surfaces are covered; then drain the excess back into the container. Reseal the container tightly. As a rough estimate only

(since tank configurations differ), one pint of CS 3600 should be adequate for a small (6 gallon) tank; one quart should be enough for larger 18-gallon tank.

CS 3600 relies on solvent evaporation to cure, not a chemical reaction. Allow four days for cure at room temperature with good ventilation. Heating to accelerate the cure is not advised.

Bonding application notes

For bonding applications, a thin, even coat of CS 3600 is brushed onto each surface of the material to be bonded. If the surface is very porous, more than one coat may be necessary. If so, a drying time of 10 minutes between coats should be allowed.

Allow the CS 3600 to dry until tacky, then join the two surfaces together. The adhesive should feel slightly sticky to the touch but not be transferred to the finger of the glove. Press or roll firmly together to ensure intimate contact. Bonding can also be accomplished by solvent reactivation or heat reactivation. For information, contact Technical Service.

Clean up

CS 3600 is difficult to remove. Cleaning tools and other surfaces is best done when the material has not yet cured. For fresh material and tool cleaning use an appropriate solvent and lint-free cloth. Once the material has cured, use an approved chemical and/or plastic scraper to remove the sealant. For Socomore's full line of solvents, wipes, chemical sealant removers (SkyRestore), plastic scrapers (SkyScraper), and their customer approvals, visit www.Socomore.com.

Packaging

CS 3600 is available in can kits. Bulk packaging may be available; contact Sales.

Health and Safety

Before using this material, read and understand the Safety Data Sheet (SDS) as it includes information on health, physical, and environmental hazards, as well as handling precautions and first aid recommendations. SDSs are available upon request.

Emergency Contact Chemtrec 800-424-9300
Outside North America 703-527-3887
Keep out of the reach of children
For industrial use only

Warranty, Limited Remedy, and Disclaimer

All recommendations, statements, and technical data contained herein are based on tests or experience that we believe to be reliable and correct, but accuracy and completeness of such information are not guaranteed and are not to be construed as a warranty, either expressed or implied. Flamemaster does not warranty the performance of fuel tank sealants or coatings when subjected to fluids or fuels other than those specified by the applicable specification.

Users shall rely on their own information and tests to determine suitability of the product for the intended use and users assume all risk and liability resulting from their use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

Rev. June 27, 2024

This technical data sheet replaces and cancels the previous one.

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