

300 Eisenhower Lane N. Lombard, IL 60148 (630)495-2001

www.saftlok.com

# Structural Adhesive SA-5

**Technical Data Sheet** 

# **PRODUCT DESCRIPTION:**

SAF-T-LOK SA-5 is a two-part, no premix acrylic bonding system. It provides high impact resistance, has low odor, is non-flammable, quick setting and offers high bond strength. SAF-T-LOK SA-5 is impact resistance on a wide variety of substrates including oily or "as received" metals. No mixing is required. This structural adhesive is easy to use and is not stringy.

# **PRODUCT CHARACTERISTICS:**

	ADHESIVE:	ACTIVATOR:
Color:	Amber	Amber
Specific Gravity:	1.1 gm/cc	1.3 gm/cc
Viscosity:	5,000 cps	2-5 cps
Solids Content:	100%	5%
Flash Point:	>200°F	>250°F
Storage Stability:	12 months @ <75°F	12 months @ <75°F

# **PERFORMANCE CHARACTERISTICS:**

A. Speed of Cure on Clean Mild Steel @ 77°F

TIME	STRENGTH
45 seconds	Handling Strength
2 minutes	1200 psi
15 minutes	2600 psi
24 hours	3500 psi

## B. Typical Mild Steel Cured Properties

	STRENGTH:	METHOD:
Tensile/Shear:	3500 psi	ASTM D-1002
Peel (t-peel):	30 lb/in	ASTM 1876
Torsional Impact:	30 lb/in	Automotive
Coefficient of Expansion:	1.4 m/m/°Cx10	

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## TECHNICAL SUPPORT

Our technical support team stand ready to assist you with your technical questions regarding your SAF-T-LOK products. On-Site support when necessary within 24 hours.

### PART NUMBERS

30531	50gm
30543	1li

#### SPECIFICATIONS ASTM C920 Type S, NS, Class

25; TT-S-00230C, TT-S-01543A, MIL-A-46106A, FDA CFR 177.2600, USDA Approved, NSF 51, UL Recognized Component.

### TURNKEY SOLUTIONS

As an ISO 9001:2015 certified company, SAF-T-LOK can design or refine products to fit your company's specific needs and requirements.

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## C. Thermal Properties

TEMPERATURE:	STRENGTH:
-50°F:	1500 psi
75°F:	3500 psi
150°F:	3500 psi
260°F:	1900 psi

Recommended thermal range is -65°F to 350°F.

## D. Tensile Shear Properties

SUBSTRATE:		STRENGTH:
Clean, mild steel:		3500 psi
Oily, mild steel:		3000 psi
Oily Steel @ 250°F:		1900 psi
Oily Aluminum:		3000 psi
Acrylic Plastic:		1800 psi
PVC:		1400 psi
Wood (Maple):		1500 psi
ABS plastic:		1200 psi
Epoxy Board:		1500 psi
	Nvlon <sup>.</sup>	200 nsi

\* Substrate Failure

The above data was obtained on one half inch overlapped specimens, one inch wide. All specimens were allowed to cure for 72 hours at room temperature prior to testing. Specimens were pulled apart at one half inch per minute. Gaps were as small as possible, estimated 2 mils.

## E. CHEMICAL RESISTANCE

SAE 10W30:	60 days	3200 psi
Gasoline:	30 days	2700 psi
Brake Fluid:	30 days	3200 psi
Benzene:	30 days	2600 psi
Water:	60 days	1500 psi
Humidity (100% @ 120°F):	30 days	3300 psi

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### PART NUMBERS

30631 30643

50gm

# 1lb

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RECOMMENDATIONS: SAF-T-LOK SA-5 adhesive bonds many surfaces without surface face preparation. Some surfaces and general comments to maximize adhesive bond strength are listed below.

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- $\geq$ Iron
- $\geq$ Steel
- $\geq$ Cast Iron  $\geq$ Brass
- $\geq$ Zinc
- $\geq$
- Aluminum  $\geq$ Alinco
- ≻ Ferrites
- $\geq$ ABS
- ≻ Rigid PVC
- ≻ Styrene
- ≻ Epoxy Board
- Neoprene

- $\triangleright$ Ceramic
- ≻ Wood
- ≻ Fabric
- ≻ Phenolics
- $\geq$ Graphite
- $\geq$ SBR Rubber
- $\geq$ Sintered Metal
- $\geq$ Acrylics
- ≻ Filled Nylon
- $\geq$ Polyurethane
- ≻ Fiberglass Board
- $\geq$ Polycarbonates
- ≻ Polyethylene

#### COMMENTS:

"As received" substrates are generally suitable for bonding. Waxy coatings and heavy greases should be removed by solvent, or vapor degreasing. Certain grades if hard, bright or anodized coatings may require mechanical abrasion for best adhesion. Frequently coated with silicone or wax tape release agents. A solvent type wipe is recommended. Some grades require mechanical abrasion. Not recommended for bonding.

### APPLICATION:

Surface Preparation – Most substrates require little, if any preparation. Adhesion is frequently best on clean mechanically roughened surfaces. Some plastics adhere better when cleaned or prepared according to the plastic manufacturer's recommendations.

- 1. Apply Activator to one of the surfaces to be bonded. Allow a few seconds for the solvent to evaporate. Surface will then have slightly oily appearance. For bond lines over .030 inches thick, application of activator to both surfaces is recommended. Porous surfaces may require heavier applications of activator.
- Apply the resin to the mating surface. 2.
- 3. Cure is initiated when parts are mated, preferable with a sliding motion.

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