

3M™ Scotch-Weld™ Tamper Proof Sealant EC-1252

Technical Data Sheet

Advantages

- 3M™ Scotch-Weld™ Tamper Proof Sealant EC-1252 is a one-part, fast drying, anti-tamper sealer.
- Self-extinguishing.
- It can be applied over adjustable or removable parts to indicate changes in position. A break in the seal indicates tampering or movement.
- Used to protect settings and calibrations of hydraulic, pneumatic, and electronic equipment against tampering. Scotch-Weld EC-1252 Sealant is also used to seal components between stages of assembly and parts which are restricted to adjustment, alteration, or access by qualified personnel.
- Will not support fungus growth.
- Exposed surfaces of Scotch-Weld EC-1252 Sealant will accept ink from an inspector's approval stamp within 20 seconds of application.
- Commonly used by aircraft industry to indicate tampering, alteration or vibration loosening.

Typical Physical Properties

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Viscosity:	500-2500 poise	
Brookfield Viscometer:	RVF #6 Spindle @ 4 rpm @ 77°F (26°C)	
Solids (by weight):	61-73%	
Base:	Nitrile-Phenolic	
Colors Available (wet and dry):	<u><i>Color</i></u>	<u><i>Net Weight</i></u>
	White	12.1 - 13.1
	Blue	12.0 - 13.0
	Pink	12.0 - 13.0
	Yellow	11.9 - 12.9

Handling/Application

Application: 3M™ Scotch-Weld™ Tamper Proof Sealant EC-1252 is a one-part, air drying compound suitable for hand extruding. Surfaces must be clean, dry and dust free.

Cleanup: Excess may be removed with a solvent such as methyl ethyl ketone (MEK).*

***Note:** When using solvents, extinguish all ignition sources including pilot lights, read and follow manufacturer's precautions and directions for use.

Typical Performance Characteristics Storage and Shelf Life

- **Drying Time:** An 1/8" thick layer of Scotch-Weld EC-1252 Sealant will dry tack free in 20 seconds.
- **Hardness:** Shore A Hardness of 97-99 after drying for 24 hours @ 77°F (25°C)/ 50% relative humidity.
- **Friability:** Scotch-Weld EC-1252 Sealant will easily crumble when flexed or twisted.
- **Flammability:** Dry film of Scotch-Weld EC-1252 Sealant is self-extinguishing and flame will self-extinguish within 15 seconds.
- **Dielectric Strength (minimum):** 100 volts/mil (Fed. Standard #406, Method 4031).
- **Surface Resistivity (minimum):** 10¹⁰ ohms (Fed. Standard #406, Method 4041).
- **Volume Resistivity (minimum):** 10¹⁰ ohms-cm (Fed. Standard #406 Method 4041).
- **Heat Resistance:** Scotch-Weld EC-1252 Sealant dried for 24 hours @ 77°F (25°C)/50% relative humidity will withstand 200°F (93.3°C) for 72 hours without loss of adhesion or sagging.
- **Fluid Resistance:** Scotch-Weld EC-1252 Sealant was cured 24 hours @ 77°F (25°C)/50% R.H. and then immersed in the following fluids:

Pure Oxygen	No effect
MIL-L-7808 Oil	Moderate softening; good adhesion
Aviation Gas (115/145)	Slight softening; good adhesion
3% Salt Water	No effect
Tap Water	No effect
JP-4 Fuel	Slight softening; good adhesion
Skydrol® Splash	Slight softening; good adhesion

• Adhesion Overlap (Shear Strength)	Aluminum (Alclad)	Steel
Average of 6	173 psi	164 psi

1" x 1/2" overlap – 10 mil thick bond line. Specimens were cured for 24 hours @ 77°F (25°C).

- **Corrosion:** After 72 hours @ 77°F (25°C) there was no evidence of corrosion on steel, aluminum, brass or silver.
- **Low Temp. Shock:** Dried films 1/16" thick withstand 3 foot-lbs. shock at -20°F (-29°C) without loss or adhesion.

Higher temperatures reduce normal storage life. Lower storage temperatures temporarily increase viscosity. Tubes must be stored tips down.

Standard shelf life of 3M™ Scotch-Weld™ Tamper Proof Sealant EC-1252 is 12 months from date of shipment from 3M when stored at 40°F (4°C) or 9 months stored at 60-80°C (16-27°C).



Precautionary Information

Refer to Product Label and Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501, and visit www.3m.com/3M/en_US/company-us/SDS-search/

For Additional information

In the U.S., call toll free 1-800-235-2376, or fax 1-800-435-3082 or 651-737-2171. For U.S. Military, call 1-866-556-5714. If you are outside of the U.S., please contact your nearest 3M office.

Authorization to Use

Ensure products meet all applicable specifications, standards, and maintenance manual requirements for the platform being worked on and validate all aircraft approvals against current technical documentation.

**These products are manufactured under a 3M Quality Management System registered to the AS9100 standard*

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