

3M

Scotch-Seal™

Tamper Proof Sealant

1252

Technical Data

Issue No. 5

Advantages

- 3M™ Scotch-Seal™ Tamper Proof Sealant 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.
- Scotch-Seal 1252 is used in the electronics industry to protect settings and calibrations of hydraulic, pneumatic, and electronic equipment against tampering. Scotch-Seal 1252 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-Seal 1252 will accept ink from an inspector's approval stamp within 20 seconds of application.
- Commonly used by aircraft industry to indicate sabotage, 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):	White, Blue, Red, Orange, Green, Gray, Pink, Yellow
Net Weight:	12.3-13.3 lbs/gal
Flash Point (closed cup):	20°F (-4°C)

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Handling/Application

Application: Scotch-Seal 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 3M™ Scotch-Grip™ Solvent #3 or methyl ethyl ketone (MEK).*

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

Typical Performance Characteristics

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

- **Drying Time:** An 1/8" thick layer of Scotch-Seal 1252 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-Seal 1252 will easily crumble when flexed or twisted.
- **Flammability:** Dry film of Scotch-Seal 1252 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:** 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-Seal 1252 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)**

Average of 6	Aluminum (Alclad) 173 psi	Steel 164 psi
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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.

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Storage and Handling

Storage: Store product at 40°F (4°C) for maximum storage life. Higher temperatures reduce normal storage life. Lower storage temperatures temporarily increase viscosity.

Rotate stock on a “first in-first out” basis.

Tubes must be stored tips down.

Shelf life: 3M Standard shelf life of Scotch-Seal 1252 is 12 months from date of shipment from 3M when stored @ 40°F (4°C) or below. 3M Standard shelf life of Scotch-Seal 1252 is 9 months from date of shipment from 3M when stored @ 60-80°C (16-27°C).

Note:

3M Scotch-Seal 1252 is identical to 3M EC-1252 in chemical composition. EC-1252 has been labeled, packaged, tested, and certified for aircraft and aerospace application. Scotch-Seal 1252 may be used for aircraft and aerospace application if proper Certificates of Test have been issued and material meets all specification requirements.

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Precautionary Information

See Product Label and Material 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.

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free (800) 235-2376. Our fax number is (417) 869-5219. Address correspondence to: 3M Aerospace Central, 3211 E. Chestnut Expressway, Springfield, MO 65802.

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ISO 9002

This Adhesives Division product was manufactured under a 3M quality system registered to ISO 9002 standards.

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Adhesives Division

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