

## MIL-I-22444C Silicone Rubber with Sinusoidal Weave Glass Support Reinforcement Self Fusing Limited Stretch Electrical Insulation Tape

Operating temperature: -65°F to +500°F / -54°C to 260°C; Brittle temperature -85°F / -65°C

**FlameShield™ Meets MIL-I-22444 and ASNA 5107 Specifications**

**Self Binding Self-Fusing Tape - High Temperature, Heat & Flame Resistant**



- Self-bonds / self fuses / self amalgamating. No sticky residue or adhesive when removed. Starts fusing within minutes, fully bonded within hours. Excellent cold weather and cryogenic performance.
- Excellent for sealing ends of firesleeve: protects sleeve from contamination and wicking liquids. Excellent for wrapping electrical & mechanical connections and splices. Makes clean and neat installations of cables, wires and hoses. Makes an instant separation bumper and provides vibration dampening. Secures insulation to hot air ducting.
- Meets Mil-i-22444C and other OEM specifications.
- Sinusoidal Fiberglass Reinforced with either 15% maximum stretch (SB15) or 25% maximum stretch (SA25) until failure of the reinforcement web.
- The embedded sinusoidal fiberglass layer provides limited stretch of the tape during installation, ensuring that a consistent minimum thickness is achieved during installation opposed to a variable thickness that occurs when manually adding tension to the tape during human applied scenarios. Machine applied tape tends to be much more uniform in thickness due to the automated tensioning measurement feedback in the application machinery.
- Supported/reinforced tape also prevents tape creep and fracturing when the tape is clamped with excessive force with either a connector back-shell, or installation clamp on a hydraulic fitting. The tape tends to remain in place and without layer fracturing compared to non supported/reinforced versions of the tape (MIL-I-46852 and A-A-59163 versions).
- Specified for cable splicing by the US Navy.
- Used as a compression protection tape under wiring connector back-shell clamping collars.
- CofC available.

The above picture of the clear version of the tape shows the fiberglass reinforcement layer. Tape is normally ordered in Oxide-Red or Black Color; other colors available including clear.

- Equivalent to MOX SA and MOX SB series tapes SB01020, SB00520, SB01015, SB01050 & SA00520, SA01020, SA03030, SA01015; DMS-2186 Type I, EMD/EMS 2074; General Dynamics P5189 & 5-00857; General Electric A50A493-C/D & A50E112; Grumman GT353V; RMS315 Type I; Simmonds 151274 (black); IBM 6084744; RL6000SA; RL6000SB; 68N, 69N, 78N, 79N; NSN 5970-01-325-8971; NSN 5970-00-841-1172; NSN 5970-14-464-7312; NSN 5970-01-596-7929

## MIL-I-22444C Silicone Rubber with Sinusoidal Weave Glass Support Reinforcement Self Fusing Limited Stretch Electrical Insulation Tape (Continued)

Operating temperature: -65°F to +500°F / -54°C to 260°C; Brittle temperature -85°F / -65°C

**FlameShield™ Meets MIL-I-22444 and ASNA 5107 Specifications**

**Self Binding Self-Fusing Tape - High Temperature, Heat & Flame Resistant**



- "S25" tape is 25% limited elongation
- "S15" tape is 15% limited elongation
- Meets 14 CFR 25.853(a) at amendment 25-116; Appendix F, Part I(a)(1)(i) (60 Second Vertical Flammability Test).

### FlameShield™ MIL Spec High Temperature Silicone Self Fusing Compression/Stretch Tape Meets MIL-I-22444 Specifications – all tapes are rectangular profile

Part Number	Tape Width Inches / mm	Thickness inches / mm
MIL-I-22444-0.50-M013-20-ZZY-S25-RXX	1/2 / 13	0.020 / 0.508
MIL-I-22444-0.50-M013-20-ZZY-S15-RXX	1/2 / 13	0.020 / 0.508
MIL-I-22444-5970-00-446-8928-ROR*	1/2 / 13	0.020 / 0.508
MIL-I-22444-69N-RBK	3/4 / 19	0.020 / 0.508
MIL-I-22444-78N-ROR	1 / 25	0.020 / 0.508
MIL-I-22444-79N-RBK	1 / 25	0.020 / 0.508
MIL-I-22444-1.00-M025-20-ZZY-S15-RXX	1 / 25	0.020 / 0.508
MIL-I-22444-1.00-M025-20-ZZY-S25-RXX	1 / 25	0.020 / 0.508
MIL-I-22444-1.00-M025-40-ZZY-S15-RXX	1 / 25	0.040 / 1.016
MIL-I-22444-1.00-M025-40-ZZY-S25-RXX	1 / 25	0.040 / 1.016
MIL-I-22444-3.00-M076-30-ZZY-S25-RXX	3 / 76	0.030 / 0.762

\*5970-00-446-8928 was originally specified at 0.018" thick but is no longer produced in that thickness. Replacement is MIL-I-22444-5970-00-446-8928-OR and is 0.020" thick.

**Please enquire for pricing on sizes other than those listed above.**

- Standard roll length is 36 feet / 12 Yards / 10.9 Metres. \* roll length 60 feet / 20 yards
- For the ZZ value (roll length): use "12" = 12 yard, "20" = 20 yard
- For the XX value (color code): OR = Oxide-Red, BK = Black. Clear & other colors available.
- Certificate of Conformity available. Test report available

Amalgamating time: At 120°C; 120 minutes / at 150°C; 35 minutes / at 200°C; 20 minutes / at 250°C; 15 minutes

Tested for short duration fluid resistance: Jet Fuel (JP5), Hydraulic Fluid (Skydrol 500B4), Mineral Oil (NATO 0142), Synthetic Oil (NATO 0156), MIL-C-87836 & Foran 141B cleaning fluids, MIL-A-8243 cooling fluid.

These tapes are guaranteed to meet specification for 2 years from date of manufacture providing tapes are stored dry at 21°C +/- 3°C or 70°F +/- 5°F. Standard tapes have an interleaved liner of polyethylene.

## FlameShield™ MIL-I-22444C Specifications and Nominal Test Data Reinforced Supported Silicone Rubber Self Fusing Electrical Insulating Tape

Specifications and Nominal Test Results for FlameShield™ Reinforced Supported Silicone Rubber Tape meeting MIL-I-22444C			
Property	Standard	Nominal Test Result or Tolerance	Test Method
Substrate	15% or 25% sinusoidal fiberglass	N/A	N/A
Thickness: 1" wide tape	.020" .030" .040"	+/- .002"	N/A
Width	0.50", 0.75", 1.00", 1.50"	+/- .020"	N/A
Length *	36 feet / 12 yards or 60 feet / 20 yards	+/- 6.00"	N/A
Color **		N/A	N/A
Operating Temperature	-60°C to +260°C -76°C to +500°F	N/A	N/A
Brittle Temperature	-65°C / -85°F	N/A	N/A
Interleave Material	.002" thick Mylar	N/A	N/A
Tensile Strength psi		4450	ASTM D412
Dielectric Strength	500 V/mil	611	ASTM D-149
Dielectric Constant		2.94 @ 1Khz	ASTM D150
Volume Resistivity	1 x 10 <sup>13</sup> ohms/cm <sup>3</sup>	3 x 10 <sup>14</sup>	ASTM D149
Ultimate Elongation 25% substrate 15% substrate		31 20	ASTM D412
Bond Strength (lbf/in)	Averaged	6.2	Per MIL-I-22444C
Water absorption (by wt)		1.1 to 1.6 %	FED-STD-601 Method 6251
Dissipation Factor		<0.0004 @ 1 Khz	ASTM D150
Hardness, durometer Shore A	50 - 55	52	ASTM D2148 / D2240
Specific Gravity		1.20	ABQA-TMS-011
Flame Test		Pass	FAA 60 Sec Vertical

- \* Custom lengths available
- \*\* Standard production is Black or Oxide-red - Custom colors or clear available