

SUMITUBE® KH 200 (TW)

AMS-DTL-23053/18, Cl. 3

HIGH TEMPERATURE FLEXIBLE FLUID RESISTANT CLEAR FLUOROPOLYMER, THIN WALL 2 : 1 Shrink Ratio

MILITARY SPECIFICATION / LOW OUTGASSING



RoHS Compliant



Lead-Free

TYPICAL FEATURES

- 1) SUMITUBE KH 200(TW) is a highly flexible and fluid resistant, flame retarded fluoropolymer heat-shrinkable tubing which meets the material and functional requirements of military specifications AMS-DTL- 23053/18, Class 3.
- 2) SUMITUBE KH 200(TW) meets the low outgassing requirements of NASA SP-R-0022A.
- 3) In addition to resistance to fluids in AMS-DTL-23053, SUMITUBE KH 200(TW) is also resistant to Skydrol 500 aircraft hydraulic fluid.
- 4) Shrink temperature is 130°C.
- 5) Operating temperature range is -70°C to +200°C and up to 300°C for short periods.
- 6) SUMITUBE KH 200(TW) is recommended for applications where thin walls and resistance to aggressive solvents, including Skydrol, and high temperatures is required in a clear material. Bundling, harnessing and environmental protection within engine compartments is one such application.
- 7) For pigmented material, see KH 230(TW).

STANDARD SIZES

NOMINAL SIZE	INSIDE DIAMETER AS SUPPLIED (MIN)		INSIDE DIAMETER AFTER RECOVERY (MAX)		WALL THICKNESS AFTER RECOVERY (NOM)	
	INCH	(MM)	INCH	(MM)	INCH	(MM)
1/8	.125	3.2	.062	1.6	.010	0.25
3/16	.187	4.8	.093	2.4	.010	0.25
1/4	.250	6.4	.125	3.2	.012	0.30
3/8	.375	9.5	.187	4.8	.012	0.30
1/2	.500	12.7	.250	6.4	.012	0.30
3/4	.750	19.1	.375	9.5	.017	0.43
1	1.000	25.4	.500	12.7	.019	0.48

Standard Color: Clear
Standard Package: Spooled (S)
How to Order: (Type of material) (Size) (Color) (Packaging)
Example: KH 200 (TW) 1/4 Clear S

KH 200(TW) SPECIFICATION VALUES

PROPERTY (UNITS)	TEST METHOD	REQUIREMENT
Physical: Tensile strength (psi) Elongation (%) Low temperature flexibility (-70°C) Heat shock (300°C, 4 hrs.) Heat resistance (250°C, 168 hrs.) Elongation (%) Tensile strength (psi) Longitudinal change (%)	ASTM D 638 ASTM D 638 AMS-DTL-23053 AMS-DTL-23053 ASTM D 638 ASTM D 638 AMS-DTL-23053	1500 min. 250 min. no cracking no cracking 200 min. 1200 min. -10 max.
Electrical: Dielectric strength (volts/mil) Volume resistivity (ohm-cm)	ASTM D 876 ASTM D 876	500 min. 1.0 X 10 ¹³ min.
Chemical: Vacuum outgassing, TML / CVCM, % Copper mirror corrosion (175°C, 16 hrs.) Water absorption (%) Fluid resistance (23°C, 24 hrs.) Tensile strength (psi) Elongation (%) Flammability Shrink temperature, nominal	NASA SP-R-0022A AMS-DTL-23053 ASTM D 570 AMS-DTL-23053 AMS-DTL-23053 AMS-DTL-23053 -----	1.0 / 0.1 max. no corrosion 0.1 max. 1200 min. 250 min. 15 sec. max.. 130°C

Specification references: AMS-DTL-23053/18B, Class 3, NASA SP-R-0022A

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