SUMITUBE® KH 230 (TW) AMS-DTL-23053/18, Cl. 3

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

MILITARY SPECIFICATION / LOW OUTGASSING

RoHS Compliant **Lead-Free**

TYPICAL FEATURES

1) SUMITUBE KH 230(TW) is a highly flexible and fluid resistant, flame retardant fluoropolymer heat-shrinkable tubing which meets the material and functional requirements of military specification AMS-DTL- 23053/18, Class 3.

2) SUMITUBE KH 230(TW) meets the low outgassing requirements of NASA SP-R-0022A.

3) In addition to resistance to fluids in AMS-DTL-23053, SUMITUBE KH 230(TW) is highly resistant to Skydrol 500 aircraft hydraulic fluid.

4) Shrink temperature is 130°C.

5) Operating temperature range is -70°C to +230°C and up to 300°C for short periods.

6) SUMITUBE KH 230(TW) is recommended for applications where thin walls and resistance to aggressive solvents, including Skydrol, and high temperatures is required. Bundling, harnessing and environmental protection within engine compartments is one such application.

7) For clear material, see KH 200(TW).

STANDARD SIZES

	INSIDE DIAMETER		INSIDE DIAMETER		WALL THICKNESS	
NOMINAL	AS SUPPLIED (MIN)		AFTER RECOVERY (MAX)		AFTER RECOVERY (NOM)	
SIZE	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: Black. Other colors available subject to factory acceptance and quote.
Standard Package: Spooled (S)

How to Order:	(Type of material)	(Size)	(Color)	(Packaging)
Example:	KH 230 (TW)	1/4	Black	S

KH 230(TW) SPECIFICATION VALUES

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

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

SUMITOMO ELECTRIC

INTERCONNECT PRODUCTS INC.

www.seipusa.com

915 Armorlite Drive
San Marcos, CA 92069

Telephone: (800) 758-3515
FAX: (800) 758-3517

Rev. 2/21/05