MATERIAL DATA SHEET

MATERIAL REFERENCE: 2D

T C Shielding material reference 2D is an extrusion and moulding grade fluorosilicone elastomer with a passivated Silver/Aluminium conductive filler. It is light green in colour.

The material is specially compounded to offer excellent physical and electrical properties over an effective temperature range of -55 to + 160°C.

Fluorosilicones are modified chemically from silicone to offer greatly improved resistance to oils and fuels whilst retaining a wide operating temperature range.

Physical Properties:

	Test methods	*Typical values:*
Hardness (IRHD)	ASTM D-2240	70
Specific gravity (g/cc)	ASTM D-792	2.70
Tensile strength (MPa)	ASTM D-412	0.55
Elongation %	ASTM D-412	100 min
Compression set % 72 hrs @ 100°C	ASTM D-395	30 max

Electrical properties:

Volume resistivity (Ohm/cm)	Mil-G-83528	0.01 max

Shielding effectiveness (Mil-G-83528)dB:

(Mil std 285 procedure)	
200KHz "H" Field	70
100MHz "E" Field	110
500MHz "E" Field	105
2GHz Plane Wave	100
10GHz Plane Wave	100

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Typical Fluid Resistance Properties of Cured Compound

ASTM Test	Property	Typical Values for 2A, 2B, 2D & 2J.
D471	**Fluid Resistance JP-4 Fuel**	**Fuel and Solvent Resistance**
	72 hrs @ 25C (77F)	
	Durometer A, Points Change	-5
	Tensile Strength, % Change	-50
	Elongation, % Change	-25
	Volume, % Change	+12
D-471	**Fluid Resistance Fuel C**	
	72 hrs @ 25C (77F)	
	Durometer A, Points Change	-10
	Tensile Strength, % Change	-65
	Elongation, % Change	-45
	Volume, % Change	+25
D-471	**Fluid Resistance Fuel B**	
	22 hrs @ 25C (77F)	
	Durometer A, Points Change	-10
	Tensile Strength, % Change	-60
	Elongation, % Change	-45
	Volume, % Change	+22
D-471	**Fluid Resistance ASTM #2 Oil**	
	70 hrs @ 149C (300F)	
	Durometer A, Points Change	-5
	Tensile Strength, % Change	-20
	Elongation, % Change	-10
	Volume, % Change	0
D-471	**Fluid Resistance Mil-L-7808**	
	70 hrs @ 149C (300F)	
	Durometer A, Points Change	-10
	Tensile Strength, % Change	-25
	Elongation, % Change	-15
	Volume, % Change	+10
D-471	**Fluid Resistance Skydrol 500B-4**	
	48 hrs @ 71C (160F)	
	Durometer A, Points Change	-15
	Tensile Strength, % Change	-67
	Elongation, % Change	-35
	Volume, % Change	+25
D-471	**Fluid Resistance SG Motor Oil**	
	168 hrs @ 160C (320F)	
	Durometer A, Points Change	-10
	Tensile Strength, % Change	-50
	Elongation, % Change	-20
	Volume, % Change	+5