HSM Wire International, Inc

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Extrusion/Insulation & Jacket Materials General Specification and Data

Material	Nom. Specific Gravity	Voltage Breakdown (Volts/Mil)	Abrasion Resistance	Nom. Dielec Constant	Flame Restardant Properties	Flexibility	Weather-ability	Nom. Temp Range C	Alcohogly-col	Gasoline	Tichloro-ethylene
PVC	1.37	500	Good	5 - 8	Excellent	Good	Excellent	-55° - 105°	Poor	Poor	Fair
Polyurethane	1.1	500	Excellent	7	Poor	Excellent	Excellent	-50° - 80°	Good	Good	Good
Polyethylene	0.95	600	Good	2.1	Poor	Fair	Excellent	-60° - 80°	Good	Good	Good
Polyethylene - Foam	0.5	N/A	Poor	1.5	Poor	Good	Excellent	-60° - 80°	Poor	Poor	Poor
Polypropylene	0.91	650	Excellent	2.2	Poor	Poor	Excellent	-40° - 105°	Good	Good	Good
Nylon	10.7	450	Excellent	4	Poor	Poor	Excellent	-40° - 120°	Excellent	Good	Excellent
FEP	2.2	600	Excellent	2.1	Excellent	Fair	Excellent	-70° - 200°	Excellent	Excellent	Excellent
PFA	2.14	2000	Excellent	2	Excellent	Fair	Excellent	-70° - 260°	Excellent	Excellent	Excellent
Silicone Rubber	1.32	600	Fair	3	Fair	Excellent	Excellent	-65° - 200°	Good	Good	Fair

Extrusion/Insulation Materials Properties

P=Poor F=Fair G=Good E=Excellent O=Outstanding

Material	Nuclear Radiation	Water Resistance	Acid Resistance	Alkali Resistance	Benzol, Toluol etc.	Degreaser Solvents	Oxidation Resistance	Heat Resistance	Oil Resistance	Low Temp Resistance	Ozone Resistance
PVC	F	F- G	G - E	G - E	P - F	P - F	E	G - E	F	P - G	E
Polypropylene	F	E	E	E	P - F	P	E	E	F	P	E
Polyurethane	G	P - G	F	F	P - G	P - G	E	G - E	E	G	E
Polyimides	N/A	E	E	P	E	E	E	O	E	N/A	N/A
Nylon	F - G	P - F	P - E	E	G	G	E	E	E	G	E
FEP	P - G	E	E	E	E	E	O	O	O	O	E
PFA	P - G	E	E	E	E	E	O	O	O	O	E
PTFE	E	E	E	E	E	E	O	O	E - O	O	O
Mica	O	O	N/A	N/A	N/A	N/A	O	O	O	O	O
Silicon	E	G - E	F - G	F - G	F	P - G	E	O	F - G	O	O

*** To be used as a guideline only.

R.1.3/17/2014