

DESIGN PROPERTIES FOR VARIOUS JACKETING COMPOUNDS



These table list various properties for materials used in outer jackets of Dekoron Unitherm Traced Tubing Bundles and Heated Hoses. All values are nominal.

Rating	JACKET MATERIAL				
	FE PVC	FR PE	FR TPE	DSJM	FR TPU
Max. Continuous Service	105°C / 221°F	70°C/158°F	125°C / 257°F	105°C/221°F	100°C/212°F
Low Temperature Brittleness notes (1) & (3)	-38°C/-36°F	-60°C/-76°F	-45°C / -50°F	-45°C/-50°F	-43°C/-45°F
Recommended Minimum Installation notes (2) & (3)	-32°C/-25°F	-50°C/-58°F	-45°C / -50°F	-35°C/-31°F	-43°C/-45°F

Notes listed on page 2

ENVIRONMENTAL	JACKET MATERIAL				
	FE PVC	FR PE	FR TPE	DSJM	FR TPU
Aliphatic Hydrocarbons	G	G	G	G	P
Aromatic Hydrocarbons	F	F	F	F	G
Halogenated Solvents	F	P	P	F	P
Acids	F	G	G	F	F
Alkalis	E	E	E	E	F
Oils	G	G	G	G	G
Water	G	E	E	G	G
Weathering	G	G	G	G	E



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DESIGN PROPERTIES FOR VARIOUS JACKETING COMPOUNDS

	FE PVC	FR PE	FR TPE	DSJM	FR TPU
ENVIRONMENTAL RESISTANCE					
Aliphatic Hydrocarbons	G	G	G	G	P
Aromatic Hydrocarbons	F	F	F	F	G
Halogenated Solvents	F	P	P	F	P
Acids	F	G	G	F	F
Alkalis	E	E	E	E	F
Oils	G	G	G	G	G
Water	G	E	E	G	G
Weathering	G	G	G	G	E

	FR PVC	FR PE	FR TPE	DSJM	FR TPU
PHYSICAL					
Abrasion Resistance	G	E	G	G	G
Mechanical Resistance	G	E	G	G	G

Notes

- (1) All temperatures are taken directly from compound manufacturer's data sheets.
- (2) Recommended minimum installation temperature for FR PVC and FR PE are based on compound manufacturer's published brittleness data plus our applied safety factor.
- (3) Once installed jacket temperatures can exceed published brittleness temperature provided bundle is not moved.

Definitions

FR=Flame Retardant
 FRPVC=Flame Retardant Polyvinyl Chloride
 FRPE=Flame Retardant Polyethylene
 FRTPE=Flame Retardant Thermoplastic Elastomeric
 DSJM= Proprietary compound made expressly for Dekoron
 FRTPU=Flame Retardant Urethane
 E= Excellent
 G= Good
 F= Fair
 P= Poor

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