

— E S P —
ESSENTIAL SEALING
PRODUCTS, INC.™

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SEWN PRODUCTS MATERIAL PROPERTIES

Material Part Number	Resistance to Weather	Resistance to Oil	Resistance to Animal & Vegetable Oil	Resistance to Abrasion	Resistance to Hydraulic Fluid (Silicates)	Resistance to Aging	Flame Resistance	Temp. Range
Neoprene Coated Nylon (NCN)	A	C	A	A	C	B	C	-60°F +220°F
Hypalon Coated Nylon (HCN)	B	C	A	A	C	C	A	-60°F +300°F
Silicone Coated Fiberglass (SCG)	A	E	D	E	E	A	D	-100°F +500°F
Aluminized Fiberglass (AFG)	D	C	C	D	D	D	A	-100°F +500°F
Fiberglass Inserted Viton (VCG)	A	C	C	B	C	A	C	-40°F +400°F
Teflon Coated Fiberglass (TCG)	A	A	B	A	A	A	B	-50°F +500°F

CODES: A =Excellent; B = Very Good; C = Good; D = Fair; E = Poor

NCN - (CR Chloroprene Polymer) Resistant to moderate chemicals, acids, oils, fats, grease, many solvents and ozone. Attacked by strong oxidizing acids, esters, ketones, chlorinated, aromatic and nitro hydrocarbons. Neoprene is flame retarding, holds up to weather and overall has good general physical properties.

HCN - (CSM Chlorosulfonated Polyethylene) Similar to Neoprene with better acid resistance and higher ozone resistance. Attacked by concentrated oxidizing acids, esters, ketones, chlorinated, aromatic and nitro hydrocarbons. Very high ozone resistance. Hypalon ranks as one of the best elastomers for use in environments where corrosive chemicals are encountered, particularly oxidizing agents like sulfuric acid, chromates and hypochlorites.

SCG - (SI Organic Silicone Polymer) Generally resistant to moderate or oxidizing chemicals, ozone, concentrated sodium hydroxide. Fair resistance to alkalis. Attacked by many solvents, oils, concentrated acids and diluted sodium hydroxide.

AFG - (Aluminum Coated Fiberglass) Fiberglass cannot absorb moisture so it won't rot or decay and is resistant to acids, oils, many solvents, weather and corrosive vapors. Fiberglass with an aluminum cover allows the material a 95% reflective heat property that made it a very good material in high heat.

VCG - (FPM or FKM- Fluorocarbon - hexafluoropropylene - vinylidene fluoride) Viton is a DuPont trade name that most people know. Fluorel is 3M's trade name. Viton is generally resistant to all aliphatic, aromatic and halogenated hydrocarbons, acids, animal and vegetable oils. It is attacked by ketones, low molecular weight esters and nitro containing compounds.

TCG - (PTFE - Polytetrafluoroethylene) Has very good chemical inertness and resistance to a wide range of fluids; there are only a few very rare fluids that will attack Teflon. It has toughness over a temperature range of -50°F to +500°F. Teflon is a DuPont trademark.

