

STANDARD COMPOUNDS

AFLAS® (TFE/P, FEPM)

OPERATING TEMPERATURE*: +15° to +400° F

COMPOSITION: Medium density copolymer of tetrafluoroethylene and propylene.

BUTYL RUBBER (IIR)

OPERATING TEMPERATURE*: -65° to +250° F

COMPOSITION: Medium density copolymer of isobutylene and a small amount of isoprene.

CARBOXYLATED NITRILE (XNBR)

OPERATING TEMPERATURE*: -10° to +250° F

COMPOSITION: Medium density terpolymer of acrylonitrile, butadiene, and a diene monomer containing carboxylic acid.

CHLOROPRENE RUBBER (CR, polychloroprene, Neoprene)

OPERATING TEMPERATURE*: -40° to +225° F

COMPOSITION: Produced from the chloroprene monomer, a combination of chlorine and butadiene. Medium density.

ETHYLENE ACRYLIC RUBBER (AEM, Vamac®)

OPERATING TEMPERATURE*: -30° to +300° F

COMPOSITION: Medium density copolymer of ethylene and methyl acrylate. May also contain a small amount of a third monomer.

ETHYLENE PROPYLENE RUBBER (EPDM, EPT, Nordel IP®, Keltan®)

OPERATING TEMPERATURE*: -60° to +250° F

COMPOSITION: Low density terpolymer of ethylene, propylene, and a small amount of a diene.

FLUOROCARBON RUBBER (FKM, FPM, Viton™, Dai-El®, Tecnoflon®)

OPERATING TEMPERATURE*: +15° to +400° F

COMPOSITION: High density copolymer of vinylidene and hexafluoropropylene.

FLUROSILICONE RUBBER (FVMQ, Silastic FSR®, FSE®)

OPERATING TEMPERATURE*: -70° to +400° F

COMPOSITION: Low density fluorinated silicone rubber.

HIGHLY SATURATED NITRILE (HNBR, HSN, NBM, Therban®, Zetpol®)

OPERATING TEMPERATURE*: -25° to +300° F

COMPOSITION: Formed by hydrogenating the nitrile copolymer of butadiene and acrylonitrile. Medium density.

NATURAL RUBBER (NR, Hevea)

OPERATING TEMPERATURE*: -60° to +225° F

COMPOSITION: Coagulated, dried rubber derived from the latex of the Hevea Brasiliensis tree. Low to medium density.

NITRILE RUBBER (NBR, Buna N, Paracril®, Nipol®)

OPERATING TEMPERATURE*: -30° to +250° F

COMPOSITION: Medium density copolymer of butadiene and acrylonitrile.

PERFLOUROELASTOMER (FFKM, Kalrez®, Chemraz®)

OPERATING TEMPERATURE*: -10° to +500° F

COMPOSITION: High density copolymer of tetrafluoroethylene and a perfluorinated ether.

POLYACRYLATE RUBBER (ACM, polyacrylic rubber, Hycar®)

OPERATING TEMPERATURE*: -0° to +350° F

COMPOSITION: Medium density acrylic ester copolymer.

POLYURETHANE (AU, EU, PU, Millathane®)

OPERATING TEMPERATURE*: -40° to +180° F

COMPOSITION: Low to medium density polyurethane diisocyanate.

PTFE (Teflon®, Polyflon®)

OPERATING TEMPERATURE*: -300° to +500° F

COMPOSITION: Fluorocarbon resin generically known as polytetrafluoroethylene.

SILICONE RUBBER (VMQ, PSilastic HCR®, Elastosil®)

OPERATING TEMPERATURE*: -65° to +400° F

COMPOSITION: Medium density inorganic rubber consisting primarily of polymethylsiloxane and variations.

STYRENE-BUTADIENE RUBBER (SBR, GRS, Buna-S)

OPERATING TEMPERATURE*: -50° to +225° F

COMPOSITION: Low density copolymer of styrene and butadiene

VITON™ ETP (Viton™ Extreme™)

OPERATING TEMPERATURE*: -10° to +400° F

COMPOSITION: High density terpolymer of ethylene, tetrafluoroethylene, and perfluoromethyl vinyl ether.



Viton™ is a trademark of The Chemours Company FC, LLC.

MATERIAL PROPERTIES CHART

MATERIAL NAME ASTM D1418 DESIGNATION	ASTM D 2000, SAE J200 Type, Class	Relative Cost	General Temperature Range (F)	Abrasion Resistance	Acid Resistance	Base Resistance	Chemical Resistance	Cold Resistance	Dynamic Properties	Flame Resistance	Gas Impermeability	Heat Resistance	Oil Resistance	Ozone Resistance	Set Resistance	Steam Resistance	Tear Resistance	Tensile Strength	Water Resistance	Weather Resistance
Aflas® – FEPM	HK	High	15 to 400	G	E	E	E	P	F	E	G	E	E	E	G	G	P-F	F-G	G	E
Butyl Rubber – IIR	AA, BA	Med	-65 to 250	F-G	G	G-E	E	G	F	P	E	F	P	G-E	F-G	G	G	G	G	E
Chloroprene (Neoprene®) – CR	BC, BE	Med	-40 to 225	G-E	F-G	G-E	F-G	G	F	G-E	G	G	F-G	G-E	F	P	F-G	G	E	G
Chlorosulfonated Polyethylene (Hypalon®) – CSM	CE	Med	-20 to 250	G-E	G	G-E	E	F-G	F	G	G	G	F	E	F	F	G	F	F-G	E
Epichlorohydrin – CO, ECO	CH	Med	-55 to 275	F-G	F-G	G-E	G	G-E	G	F	G-E	F-G	E	G-E	P-F	G	G	G	G	G-E
Ethylene Acrylic (Vamac®) – AEM	EE	Med	-30 to 300	G	F	P-G	F-G	G	F	P	E	G-E	F	E	G	P	F	G	G	E
Ethylene Propylene – EPM, EPDM	AA, BA, CA, DA	Low	-60 to 250	G-E	E	E	E	G-E	G-E	P	G	G-E	P	E	G-E	E	G-E	G-E	E	E
Fluorocarbon – FKM	HK	High	-15 to 400	G	E	G	E	P	G	E	G	E	E	E	G-E	P	F	G-E	G	E
Fluorosilicone – FVMQ	FK	High	-70 to 400	P	G	G	G	E	P	E	P	E	G	E	G-E	F-G	P	P	E	E
Hydrogenated Nitrile – HNBR	DH	High	-25 to 300	E	G	G	F-G	G	E	P	G	G-E	E	G-E	G-E	G	E	E	E	G-E
Nitrile – NBR, XNBR	BF, BG, BK, CH	Low	-30 to 250	G-E	F	F	F-G	G	G-E	P	G	G	E	P	G-E	F	F-G	G-E	G-E	P-F
Perfluoroelastomer – FFKM	KK	V High	-10 to 500	P	E	E	E	P	F	E	G	E	E	E	P	G-E	P-F	F-G	G-E	E
Polyacrylate – ACM	DF, DH	Med	0 to 350	G	P	P	P	P	F	P	E	G	E	G-E	F	P	F-G	F	P	E
Polytetrafluoroethylene (Teflon®) – PTFE	None	High	-300 to 500	P-G	E	E	E	E	P	E	F	E	E	E	P	E	E	E	E	E
Polyurethane – AU, EU	BG	High	-40 to 180	E	P	F	F	G	E	P	G	P	G	E	F	P	G-E	E	P/G	E
Silicone – MQ, PMQ, VMQ, PVMQ	FC, FE, GE	Med	-65 to 400	P	F-G	F-G	F	E	P	G	P	E	F	E	G-E	F-G	P	P	E	E
Styrene Butadiene – SBR	AA, BA	Low	-50 to 225	E	F	F	F	G	G-E	P	F	F	P	P	G	F	F-G	G-E	G-E	F
Viton™ ETP – FEPM	HK	High	-10 to 400	F	E	E	E	P	F	E	F	E	E	E	P	F-G	F	G	E	G

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

*Excellent, good, fair and poor are intended to serve as general guidelines only. Actual testing in the application environment is always recommended.