TechSeal Division Polymer Families

Polymer Families	Specifications	Characteristics
Acrylonitrile-Butadiene / Nitrile / Buna-N (NBR)	AMS, MIL FDA 21 CFR UL 157	Excellent resistance to petroleum-based fluids, good balance of physical properties and wide temperature range. Relatively low ozone and weather resistance. Good general purpose elastomer.
Chloroprene Rubber / Neoprene (CR)	AMS, MIL	Good general purpose polymer. Exhibits good ozone, aging, and chemical resistance - primarily used in refrigerants.
Ethylene Propylene Rubber (EPDM, EPM, EP, EPR)	AMS, MIL USP Class VI, FDA 21 CFR NSF 61	Widely specified seal material - excellent resistance to alcohols, ketones, steam, brake fluids, Skydrol®, and other phosphate ester-based hydraulic fluids. Excellent weathering resistance. Not recommended for use in petroleum fluids.
Fluorocarbon (FKM, FPM)	AMS, MIL FDA 21 CFR UL 157	Wide-spectrum chemical resistance and broad temperature range. Some specialty FKM compounds have low temperature static sealing to -40°F [-40°C]. Commonly used in fuels and oils. Bio fuel and coolant resistant versions are also available. Oil & Gas grades available (Resistant to extrusion and explosive decompression).
Fluorosilicone (FVMQ)	AMS, MIL	Combines temperature range of silicone with good resistance to petroleum-based fuels and lubricants. Applications with high heat that are combined with potential exposure to petroleum oils and / or hydrocarbon fuels.
Hydrogenated Nitrile (HNBR, HSN)	NORSOK approved	Similar to nitrile with improved high temperature capabilities and ozone resistance. Excellent resistance to petroleum-based fluids. Oil & Gas grades available (Resistant to extrusion and explosive decompression).
Polyacrylate (ACM, AEM)	Approved to many automotive OEM specifications	Outstanding resistance to petroleum-based fuels, oils, and automative transmission fluids (ATF). Good resistance to oxidation, ozone, and sunlight - resists flex cracking.
Silicone (VMQ, PVMQ, PMQ)	AMS, MIL USP Class VI, FDA 21 CFR UL 94 V-0, UL 94 HB, UL 157	Ozone and weather resistant. Wide service temperature range and good insulating properties. Excellent choice for environmental seals. Relatively low resistance to fuels and oils.
Thermoplastic Elastomer (TPR, TPE)	USP Class VI, FDA 21 CFR NSF 61	A cost friendly alternative to rubber with similar physical properties. Limited resistance to high temperature. High tear resistance. Low surface friction.

Note: This table only provides general guidelines on material selections, please consult our Application Engineers for specific recommendations for your applications.