SEAL SOLUTIONS
AUSTRALIA

REFERENCE GUIDE FOR O-RING MATERIALS

MATERIAL	***USE WITH***	***DO NOT USE WITH***	***COMMENTS***
NITRILE (Buna-N) Duro: 70 Standard Temperature: -35° To 250° Least Expensive/ Very popular	Air, Water, Oils, Fuels, Gasoline, Engine Coolant, LPG Hydraulic Actuator Seals, Hydraulic Pump Seals, Water Pump Seals Carburetor Seals, Transmission Seals	Acetone, Lube Oil, Auto/Aircraft, Brake Fluids, Automatic Transmissions. Military Hydraulic Systems	Good Wear Resistance Good Compression Set Resistance Good Short-Term Resilience Good Permeation Resistance
Hydrogenated Nitrile (HNBR) Duro: 70 Standard Temperature: -40° To 325°	Engine Coolants, Oxygen/ Ozone, Steering Fluid Sour Crude, Refrigerants	Alcohol Containing Fuels	Better high temperature and Compression set resistance than Standard Nitrile. Resists chemicals, amines, hydrogen sulfide and ozone that typically attack standard Nitrile compounds.
Fluorocarbon (Viton & Fluorel) Duro: 75 Standard Temperature: -15° To 400°	Vacuum, Most Acids and Chemicals , Silicone Oils Petroleum Oils, Di-Ester Lubricants. Halogenated Hydrocarbons,	Acetone, Skydrol, Ketones, Amines, Ethyl Acetate, Hot Water & Steam	Excellent high temperature capability. Can withstand brief intermittent Exposure to 600°. Low compression set. Good resistance to a wide variety of chemicals.
EPDM / EPR Duro: 70 Standard Temperature: -60° To 250°	Water, Alcohol, Acetone, Steam, Brake Fluids, Some Acids and Base Ketones	Petroleum Oils & Fuels, Toluene	Good heat resistance. Resistant to sunlight & weathering. Poor resistance to Petroleum Oils & fuels.
Silicone Duro: 70 Standard Temperature: -65° To 400°	Dry Heat, Alcohol, Vegetable Oils, Oxygen, Sunlight, Ozone, Weathering Odorless & Non-Toxic	Petroleum Oils & Fuels, Acids, Silicone Oils, Brake Fluids	Broad temperature range. less favorable tensile, tear & abrasion resistance.

MINEPARTS AND SEALS PTY LTD
Your Complete Sealing Solution

MATERIAL	***USE WITH***	***DO NOT USE WITH***	***COMMENTS***
Neoprene (Chloroprene) Duro: 70 Standard Temperature: -65° To 300°	Alcohol, Engine Coolant, Vegetable Oil, Animal Fats, Ammonia Refrigerants	Petroleum Oils & Fuels, Dilute Acids, Toluene, Acetone.	Good resistance to flexing, tear, sunlight & Weathering.
Aflas Duro: 70 Standard Temperature: -40° To 450°	Engine Coolants, Steam, Corrosion Inhibitors, Carbon Dioxide	Petroleum Oils & Fuels	Good resistance to sour crude and Amine-based corrosion inhibitors.
Fluorosilicone Duro: 70 Standard Temperature: -80° To 350°	Petroleum Oils, Jet Fuel, Gasoline, Alcohol, Dry Heat.	Acetone, Ethyl Acetate, Some Acids, Amines	Slightly narrower temperature range than Silicone rubber, but with excellent resistance to a wider variety of fluids.
Polyacrylate Duro: 70 Standard Temperature: -20° To 350°	Automatic Transmission Fluid, Power Steering Fluid	Water, Toluene, Engine Coolant Acetone	Automatic transmission seals. meets many automotive specifications.
Butyl Duro: 70 Standard Temperature: -65° To 200°	Water, Alcohol, Skydrol, Pydrual, Ammonia, Acetone, Hydrazine	Petroleum Oils & Fuels, Toluene, Trichloroethane	Low gas Permeability. Good resistance to sunlight & weathering.
Hypalon Duro: 70 Standard Temperature: -65° To 200°	Animal Fats, Vegetable Oils, Engine Coolant, Freon 12, Freon 22, Fefrigeration Oils	Petroleum Fuels Acetone Toluene, Ethyl Acetate, Trichloroethane	Exceptionally resistant to sunlight, ozone and weathering. For most applications neoprene does an equal job at a lower cost.

SEAL SOLUTIONS
AUSTRALIA

MATERIAL	***USE WITH***	***DO NOT USE WITH***	***COMMENTS***
Polyurethane Duro: 70 & 90 Standard Temperature: -65° To 200°	Drive Belts Some Petroleum Oils Oxygen/Ozone Chlorinated Solvents	Ketones Acids Water	Excellent abrasion and extrusion resistance. poor compression set and chemical resistance.
Teflon® (PTFE) Polytetrafluoroethylene Temperature: -65° To 200°	Chemical Resistance Low Coefficient of Friction.	Molten Alkaline Metals.	Teflon® is impervious to virtually all fluids and gases.
Teflon® Encapsulated (Viton®, Silicone or Spring loaded core)	Temperature and Chemical resistance Depends on core.		Cryogenics, Chemicals
Kalrez® & Simriz® Parofluor (Perfluorelastmer) Temperature: -10° To 615°	Petroleum Oils, Chlorinated Hydrocarbons, Low Out Gassing, High Temperature, Excellent Chemical Resistance	Molten Metals Halogenated Freons & Fluids Gaseous Alkali Metals	High Chemical & Temperature resistance. Excellent outgasing performance in Vacuums Low compression set.