

The following table and list may be used to interpret Republic standard and semi-standard Part Numbers, and as a guide in selecting elastomer seals for use with various media. Since seal compound selection must also take into account the gland design, pressure,

temperature and seal function (dynamic or static), we suggest complete application and media information be sent to us so we can offer a specific recommendation. Sealing materials other than the compounds listed are available.

Code No.	O-Ring No.	Compound Base	Specification No.	Temperature Guide °F		Service
				Minimum	Maximum	
1	SP101	Buna N	MIL-P-5315	-67	+200	Aircraft fuels JP3, JP4, JP5 and reciprocating engine type commercial gasoline and kerosene MS29512 & MS29513.
*2	SP100	Buna N	Buna-N (commercial)	-40	+250	Mineral oils, hydraulic fluids, pneumatic service, stoddard solvent, ethylene glycol.
3	SP102	Buna N	MIL-P-5516, Class B	—	—	Inactive for Military use. See MIL-P-5516C notice dated 18 July 1975. Use MIL-P-25732 (SP132) or MIL-P-83461 (SP173). Consult factory.
7	SP109	Neoprene (Chloroprene type)	AMS 3209 Sulfur Free	-65	+300	Ozone and weather resistant. Also use with all freons except 11, 21 and MF. (No free element sulfur.)
*26	SP131	Buna N	U.L. approved	-60	+250	U.L. approved for gasoline, kerosene, LPG, anhydrous ammonia (-60° to +120°F) No. 1 thru No. 6 fuel oils (-60° to +250°F).
27	SP132	Buna N	MIL-P-25732	-65	+275	Petroleum base hydraulic fluid, aircraft, and ordnance MS28775.
28	SP133	Viton A	Fluorocarbon AMS 7278 MIL-R-83248, Type I, Class I	-20	+400	High temperature oils, aromatic service, all hydraulics, battery acid NAS1593, NAS1595.
52	SP160	Ethylene Propylene		-65	+300	Skydrol, cellulube, steam, phosphate esters, water, air, dilute acids. Should not come in contact with petroleum products. All sizes color coded yellow. MIL-R-83285 GR80.
*T	SP103	Teflon	AMS 3651	-65	+400	Compatible with most liquids and gases except some fluorochemicals.

*Cure date not available.

NOTE: Teflon O-rings are not recommended for general applications.

MEDIA	CODE NO.	MEDIA	CODE NO.	MEDIA	CODE NO.
ACETIC ACID	52	FLUOROLUBE	52	MIL-L-17331	27
ACETONE	52	FORMALDEHYDE	52	MIL-H-19457	52
AEROZENE 50	52	FREON, 11	2	MIL-L-21260	27
AIR	52	FREON, 12	7	MIL-H-22251	52
AIR, HIGH TEMP. (TO 300° F.)	T	FREON, 12 & ASTM OIL #22 (50/50 MIXTURE)	7	MIL-L-23699	28
AIR, LUBRICATED	2	FREON, 14	7	MIL-G-25013	28
ALKAZENE	28	FREON, 22	7	MIL-G-25537	27
ALUMINUM NITRATE	2	FREON, 22 & ASTM OIL #2 (50/50 MIXTURE)	7	MIL-F-25558 (RJ-1)	1
ALUMS NH ₄ CR K	2	FREON, 114	7	MIL-R-25576 (RP-1)	1
AMINES, MIXED	7	FUEL OIL	2	MIL-F-25656	1
AMMONIA, GAS, COLD	7	FUEL OIL, #6	28	MIL-L-25681	28
AMMONIA, GAS, HOT	7			MIL-G-25760	28
AMMONIA, LIQUID (ANHYDROUS)	7	GASOLINE	2	MIL-P-27402	28
AMMONIUM CARBONATE	7	GELATIN	2	MIL-H-27601	52
AMMONIUM CHLORIDE	2	GLUCOSE	2	MIL-S-81087	52
AMMONIUM HYDROXIDE	52	GLYCERINE-GLYCEROL	2	MINERAL OILS	2
AMMONIUM NITRATE	2	GLYCOLS	52	MINESAFE	2
AMMONIUM NITRITE	2			MOPAR BRAKE FLUID	52
AMMONIUM PHOSPHATE	2	HALOWAX OIL	28		
AMMONIUM SULPHATE	2	HEF-2 (HIGH ENERGY FUEL)	28	NAPHTHA	28
AMMONIUM SULPHIDE	2	HELIUM	52	NATURAL GAS	2
AMYL ACETATE	52	N-HEPTANE	2	NEATSFOOT OIL	2
AMYL ALCOHOL	52	N-HEXANE	2	NITROGEN	2
ANDEROL (DI-ESTER)	28	HYDROLUBE WATER ETHYLENE GLYCOL	2		
ANG-25 (GLYCERAL ESTER)	52	HYDRAULIC OIL (PETROLEUM BASE)	2	OLIVE OIL	2
ANG-25 (DI-ESTER BASE) (TG749)	28	HYDRAZINE	52	ORONITE	28
ANILINE	52	HYDROCARBONS (SATURATED)	2	OS 45	28
ANILINE OIL	52	HYDROGEN GAS	52	OS 70	28
ANIMAL OIL (LARD OIL)	2	HYDROGEN PEROXIDE	28	OXALIC ACID	28
AROMATIC FUEL 50%	28	HYDROGEN SULPHIDE	52	OXYGEN	52
ASPHALT	28			OXYGEN 200° F.	22
ASTM OIL, NO. 1, 2, 3	2	IODINE	28	OZONE	52
ASTM OIL, NO. 4	28	ISOPROPYL ALCOHOL	52		
ASTM REFERENCE FUEL A, B	2			PAINT THINNER	28
ASTM REFERENCE FUEL C	28	JP 3 (MIL-J-5624)	1	PEANUT OIL	2
AUTOMATIC TRANSMISSION FLUID	2	JP 4 (MIL-J-5624)	1	PENTANE	2
AUTOMATIC BRAKE FLUID	52	JP 5 (MIL-J-5624)	1	PETROLEUM OIL	2
		JP 6 (MIL-J-25656)	1	PHENOL	28
		JP X (MIL-F-25604)	1	PINE OIL	2
BARDOL B	28			PLATING SOLUTIONS	52
BEER	7	KEROSENE	2	PNEUMATIC SERVICE	2
BEET SUGAR LIQUORS	2			POTASSIUM CHLORIDE	2
BENZENE	28	LIGHT GREASE	2	PRESTONE ANTIFREEZE	2
BENZINE	2	LINDOL HYDRAULIC FLUID	52	PRL-HIGH EMP. HYDR. OIL	28
BORON FLUIDS (HEF)	28	LINSEED OIL	2	PRODUCER GAS	2
BRAKE FLUID (NON-PETROLEUM)	52	LIQUID OXYGEN	2	PROPANE	2
BUNKER OIL	2	LIQUID PETROLEUM GAS (LPG)	2	PROPYL ALCOHOL	2
BUTANE	2	LUBRICATING OILS, DI-ESTER	28	PYRANOL, TRANSFORMER OIL	2
BUTANOL (BUTYL-ALCOHOL)	2	LUBRICATING OILS, PETROLEUM BASE	2	PYDRAUL, 150	52
BUTYL ALCOHOL	2	LUBRICATING OILS, SAE 10, 20, 30, 40, 50	2	PYDRAUL, 135, A200, 312, AC, F-9, 625	28
BUTYL CELLOSOLVE ADIPATE	52			PYROGARD 42, 43, 53, 55	52
BUTYLENE	28	MERCURY	2	PYROGARD C, D	2
BUTYL STEARATE	28	METHANE	2	PYROLUBE	28
		METHANOL	2		
CALCIUM CHLORIDE	2	METHYL ALCOHOL	2	RAPSEED OIL	52
CALCIUM HYDROXIDE	2	METHYL CHLORIDE	28		
CALCIUM HYPOCHLORIDE	52	METHYL ETHYL KETONE (MEK)	52	SAL AMMONIAC	52
CALCIUM NITRATE	2	MIL-L-2104	27	SANTO SAFE 300	28
CANE SUGAR LIQUORS	2	MIL-S-3136, TYPE I, TYPE II, TYPE III FUEL	1	SEWAGE	2
CARBONIC ACID	52	MIL-S-3136, TYPE IV OIL, LOW SWELL	2	SILICONE GREASES	52
CARBON DISULPHIDE	28	MIL-S-3136, TYPE V OIL, MEDIUM SWELL	2	SILICONE OILS	52
CARBON TETRACHLORIDE	28	MIL-S-3136, TYPE VI OIL, HIGH SWELL	2	SKYDROL 500, 7000	52
CASTOR OIL	2	MIL-L-3150	27	SODA ASH	2
CELLSOLVE	52	MIL-O-3503	27	SODIUM CHLORIDE	2
CELLULUBE A60, 90, 100, 150, 220, 300, 500	52	MIL-G-3545	27	SODIUM NITRATE	52
CELLUTHERM 2505A	28	MIL-C-4339	27	SOUR NATURAL GAS	7
CHLORINATED SALT BRINE	28	MIL-L-4343	27	SOUR CRUDE OIL	7
CHLORINATED SOLVENTS	28	MIL-J-5161	1	SOYBEAN OIL	2
CHLORINE	28	MIL-F-5566	1	SR-6 FUEL	28
CHLOROFORM	28	MIL-G-5572	52	SR-10 FUEL	2
CHROME PLATING SOLUTIONS	28	MIL-H-5606 (HFA)	1	STEAM, BELOW 350° F	52
CITRIC ACID	7	MIL-H-5606 (J43)	27	STODDARD SOLVENT	2
COCONUT OIL	2	MIL-J-5624, JP-3, JP-4, JP-5	1	SULPHUR	7
COD LIVER OIL	2	MIL-O-6081	27		
COKE OVEN GAS	28	MIL-L-6082	27	TANNIC ACID	2
COOLANOL, (MONSANTO)	28	MIL-H-6083	27	TAR, BITUMINOUS	28
COPPER SULPHATE	2	MIL-L-6085	27	TETRAETHYL LEAD	28
CORN OIL	2	MIL-A-6091	52	TOLUENE	28
COTTONSEED OIL	2	MIL-L-6387	28	TRANSFORMER OIL	2
CREOSOTE	2	MIL-F-7024	1	TRANSMISSION FLUID TYPE A	2
CREOSOLS	28	MIL-H-7083	52	TRICHLOROETHYLENE	28
CRUDE OIL	28	MIL-G-7118	27	TURBINE OIL	2
CUTTING OIL	2	MIL-G-7187	27	TURPENTINE	2
		MLO-7277 HYDR	28		
DELCO BRAKE FLUID	52	MIL-G-7557	28	UNSYMMETRICAL DIMETHYL HYDRAZINE (UDMH)	52
DENATURED ALCOHOL	2	MIL-G-7711	27		
DETERGENT, WATER SOLUTION	52	MIL-L-7808	28	VARNISH	28
DEVELOPING FLUIDS (PHOTO)	2	MIL-L-7870	27	VEGETABLE OIL	2
DIESEL OIL	2	MIL-C-8188	28	VINEGAR	7
DI-ESTER SYNTHETIC LUBRICANTS	28	MLO-8200 HYDR	28		
DOWTHERM, A, E	28	MIL-H-8446 (MLO-8515)	28	WAGNER 21B BRAKE FLUID	52
DOWTHERM, 209	2	MLO-8515	28	WATER	2
DOW GUARD	2	MIL-L-9000	27	WHITE PINE OIL	28
DRY CLEANING FLUIDS	28	MIL-L-9236	28	WHITE OIL	2
		MIL-E-9500	52	WOOD ALCOHOL	2
		MIL-G-10924	27	WOOD OIL	2
ETHANE	2	MIL-H-13910	52		
ETHANOL	2	MIL-L-15016	27	XYLENE	28
ETHYL ALCOHOL	2	MIL-L-15017	27		
ETHYLENE CHLORIDE	28	MIL-G-15793	27	ZINC CHLORIDE	2
ETHYLENE GLYCOL	52	MIL-F-16884	27	ZINC SULPHATE	2
ETHYLENE OXIDE	52	MIL-F-17111	27		
FATTY ACIDS	28				

