



"Engineered Sealing Solutions"

High-Performance Sealing Materials

Parker Material Code	Material Trade Name	Color	Typical Applications & Description	Service Temperature Range °F (°C)	Tensile Strength @ Break psi (MPa)	Ultimate Elongation	Shore Hardness	
							A	D
Thermoplastic Elastomers – TPU, Polyurethanes								
P4300A90	Polyurethane Resilon® 4300	Tan	Proprietary compound offering extended temperature range, high rebound	-65 to +275 (-54 to +135)	8625 (59.5)	560%	92	-
P4301A90	Polyurethane Resilon® 4301	Aqua Blue	For water- or petroleum-based fluids	-35 to 225 (-37 to +107)	7129 (49.2)	514%	90	-
P4304D60	Polyurethane Resilon® 4304	Brown	Offers higher extrusion resistance for seals and anti-extrusion devices	-65 to +275 (-54 to +135)	6521 (44.9)	556%	-	55
P4311A90	Polyurethane Resilon® 4311	Red	Formulation resists internal heat generated through hysteresis, ideal for shock applications	-65 to +275 (-54 to +135)	7229 (49.8)	632%	91	-
P4615A90	Polyurethane Molythane®	Black	General purpose industrial polyurethane offering high abrasion resistance	-65 to +200 (-54 to +93)	8134 (56.1)	565%	95	-
P4622A90	Polyurethane Ultrathane®	Yellow	Formulated with internal lubricants for lower friction to help reduce heat buildup	-65 to +225 (-54 to +107)	6757 (46.6)	466%	94	-
P4700A90	Polyurethane	Green	Enhanced properties over 4615 to improve sealing capabilities from lower compression set	-65 to +200 (-54 to +93)	5660 (39.0)	511%	92	-
P5065A88	Polyurethane	Dark Blue	Formulated for an improved low temperature range and higher resilience than 4615	-70 to +200 (-57 to +93)	5033 (34.7)	660%	86	-
Thermoplastic Elastomers – TPCE, Polymyte®								
Z4651D60	Polymyte®	Orange	Used in applications requiring extended extrusion resistance and fluid compatibility	-65 to +275 (-54 to +135)	5748 (39.6)	775%	-	58
Z4652D65	Polymyte®	Orange	Primarily used for back-up rings and other anti-extrusion devices	-65 to +275 (-54 to +135)	6175 (42.6)	700%	-	62
Non-Filled PTFE								
0100	Virgin PTFE	White	Excellent for cryogenic applications & gases	-425 to 450 (-254 to 233)	4575 (316)	400%	60	-
Filled PTFE								
0102	Modified PTFE	Turquoise	Lower creep, reduced permeability and good wear resistance	-320 to 450 (-195 to 282)	4600 (317)	390%	60	-
0120	Mineral Filled PTFE	White	Excellent low abrasion to soft surfaces & improved upper temperature performances. FDA materials	-250 to 550 (-157 to 288)	4070 (281)	270%	65	-
0203	Fiberglass Filled PTFE	Gold	Excellent compressive strength and good wear resistance	-200 to 575 (-129 to 302)	3480 (240)	190%	67	-
0204	Fiberglass & Moly Filled PTFE	Gray	Excellent for extreme conditions such as high pressure, temperature and longer wear life on hardened dynamic surfaces	-200 to 575 (-129 to 302)	3100 (214)	245%	62	-
0205	Fiberglass & Moly Filled PTFE	Gray	Improved compressive strength and wear in rotary applications	-200 to 575 (-129 to 302)	3480 (240)	190%	67	-
0301	Graphite Filled PTFE	Black	Excellent for corrosive service. Low abrasion to soft shafts. Good in unlubricated service	-250 to 550 (-157 to 288)	3200 (221)	260%	60	-
0307	Carbon-Graphite Filled PTFE	Black	Excellent wear resistance and reduces creep	-250 to 575 (-157 to 302)	2250 (155)	100%	64	-
0401	Bronze Filled PTFE	Bronze	Excellent extrusion resistance and high compressive loads	-200 to 575 (-129 to 302)	3200 (221)	250%	63	-
0502	Carbon Fiber Filled PTFE	Brown	Good for strong alkali and hydrofluoric acid. Good in water service	-200 to 550 (-129 to 288)	3200 (221)	150%	60	-
0601	Aromatic Polyester Filled PTFE	Tan	Excellent high temperature capabilities and excellent wear resistance	-250 to 550 (-157 to 285)	2500 (172)	200%	61	-
UltraCOMP™ (PEEK)								
W4685	UltraCOMP™ HTP	Tan	A homogenous engineered thermoplastic used for extreme conditions in many markets	-65 to +500 (-54 to +260)	14000 (96.5)			
W4686	UltraCOMP™ GF	Tan	30% glass filled engineered thermoplastic with enhanced compressive strength	-65 to +500 (-54 to +260)	22600 (156)			
W4737	UltraCOMP™ CF	Black	30% carbon fiber blend, provides enhanced tensile and compressive strength	-65 to +500 (-54 to +260)	32400 (224)			

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Nitrile (NBR)							
N4115A75	NBR	Black	General purpose nitrile with medium ACN content for use where a softer seal is required	-40 to +225 (-40 to +107)	2215 (15.3)	328%	74
N4181A80	NBR	Black	Fiber added reinforcement helps retain lubrication for reduced friction. Used in 8600 wipers	-40 to +250 (-40 to +121)	2437 (16.8)	345%	80
N4121A90	NBR	Black	High modulus for outstanding extrusion resistance plus good compression set	-40 to +250 (-40 to +121)	2415 (16.7)	247%	89
N4008A80	NBR	Black	Premium, low ACN nitrile for use when low temperature sealability is required	-70 to +275 (-57 to +135)	2141 (14.8)	177%	79
N4182A75	NBR	Black	General purpose nitrile for use when low temperature sealability is required	-65 to +225 (-54 to +135)	1914 (13.2)	278%	79
Carboxylated Nitroxile® (XNBR)							
N4257A85	XNBR	Black	XNBR with internal lubricant to reduce friction. Ideal for pneumatic applications	0 to +250 (-18 to +121)	2845 (19.6)	249%	80
N4274A85	XNBR	Black	Premier XNBR in the industry formulated with proprietary internal lubricant	-10 to +250 (-23 to +121)	3016 (20.8)	241%	83
N4263A90	XNBR	Black	Extra tough XNBR with increased hardness, modulus and tensile strength	-20 to +275 (-29 to +135)	3103 (21.4)	117%	90
Hydrogenated Nitrile (HNBR)							
N4031A85 (KA183)	HNBR	Black	Equivalent to Parker compound KA183A85, offers low temperature improvement	-40 to +320 (-40 to +160)	1800 (12.4)	100%	88
N4032A80 (KB162)	HNBR	Black	Equivalent to Parker compound KB162A80 offering improved chemical compatibility	-25 to +320 (-32 to +160)	3335 (22.9)	164%	82
N4033A90 (KB163)	HNBR	Black	Equivalent to Parker compound KB163A90 offering improved chemical compatibility	-25 to +320 (-32 to +160)	3219 (22.2)	107%	88
N4007A95	HNBR	Black	Excellent extrusion resistance	-20 to +320 (-29 to +160)	4698 (32.4)	207%	92
Ethylene Propylene (EPR)							
E4207A90	EPR	Black	General purpose 90A EPR, has excellent dimensional stability in water-based fluids & steam	-65 to +300 (-54 to +149)	2285 (15.8)	135%	87
E4259A80	EPR	Black	General purpose 80A EPR, has excellent dimensional stability in water-based fluids & steam	-65 to +300 (-54 to +149)	2142 (14.8)	162%	79
E4270A90	EPR	Black	Formulated for geothermal environments and steam up to +600°F	-65 to +400 (-54 to +204)	3047 (21.0)	145%	89
Fluorocarbon Elastomers (FKM)							
V1289A75	FKM	Black	Fluorocarbon material formulated for improved low-temperature applications	-40 to +400 (-40 to +204)	1497 (10.3)	163%	78
V4205A75	FKM	Black	70 Shore A general-purpose fluorocarbon resistant to chemical attack and heat	-20 to +400 (-29 to +204)	2161 (14.9)	202%	76
V4208A90	FKM	Black	90 Shore A general-purpose fluorocarbon resistant to chemical attack and heat	-5 to +400 (-21 to +204)	1954 (13.5)	152%	90
V4266A95	FKM	Black	Features extended wear and extrusion resistance over general purpose fluorocarbons	-5 to +400 (-21 to +204)	2442 (16.8)	102%	92
V1238A95	FKM	Black	Resistant to explosive decompression and extrusion. Shows no visual physical damage after prolonged exposure to 100% CO ₂ concentrations	-20 to +400 (-29 to +204)	3030 (20.9)	95%	93
Nylons							
W4650	MolyGard®	Gray	Heat stabilized, internally lubed 30% glass-reinforced nylon for standard tolerance wear rings	-65 to +275 (-54 to +135)	17500 (121)		
W4655	Nylatron®	Gray	Wear resistant nylon with molybdenum disulfide for lower friction, suited for back-up rings	-65 to +275 (-54 to +135)	13000 (89.6)		
W4733	WearGard™	Green	High compressive strength, 35% glass-reinforced nylon for tight tolerance wear rings	-65 to +275 (-54 to +135)	18300 (126)		