



NexPrene FDA Grades

DESCRIPTION:

NexPrene® thermoplastic vulcanizates (TPVs) are fully cross-linked EPDM/PP compounds designed to replace thermoset elastomers, such as polychloroprene (Neoprene) or EPDM, and conventional thermoplastic rubber. NexPrene 1100 grades comply with FDA, CFR title 21-Section 177.2600 and CFR title 21 Section 177.1210. NexPrene rubber provides the advantage of low cost thermoplastic processing, such as injection molding, extrusion, and blowmolding.

APPLICATIONS:

Rubber articles intended for repeated use in contact with non-fatty and non-oily foods are covered under section 177.2600. Section 177.1210 also covers rubber articles deemed safe for single-use closure and sealing gaskets in contact with non-fatty and non-oily foods. NexPrene 1100 grades are suitable for FDA components such as valves, gaskets, peristaltic pump tubes, diaphragms, tubing, seals, and cable jacketing.

Property	ASTM	UNITS	1140A	1145A	1155A	1160A	1164A	1170A	1175A	1180A	1184A	1187A	1140D	1145D	1150D
Hardness:	D-2240														
Extrusion (5 seconds)		Shore A or D	36A	41A	51A	56A	59A	66A	71A	78A	80A	84A	38D	43D	47D
Injection Molded (5 seconds)		Shore A or D	40A	45A	55A	60A	62A	70A	73A	80A	84A	87A	40D	45D	50D
Specific Gravity	D-792		0.93	0.94	0.97	0.97	0.97	0.97	0.97	0.97	0.96	0.96	0.94	0.95	0.94
Tensile Strength	D-412	MPa	5	5.2	6.5	7	7.6	8.7	10	12.4	14.5	16.8	20.1	23.3	27.5
Tensile Modulus @ 100%	D-412	MPa	0.9	0.96	2.2	2.4	2.7	3.1	3.6	4.7	5.5	6.1	8.9	9.1	9.4
Ultimate Elongation	D-412	%	500	510	427	500	540	611	631	631	525	550	570	577	610
Tear Strength (Die C)	D-624	kN/m	11.5	13	31	32	34	41	47	57	59	60	74.5	81.4	97.1
IRM 903 Oil Vol Swell (70 hr @ 125°C)	D-471	%	130	125	110	110	110	100	90	85	82	80	65	45	37
Compression Set (22 hr @ 70°C)	D-395	%	26	26	27	28	29	32	35	40	43	48	55	57	61
Ozone Resistance (500 hr @ 100 pphm)	D-1149		Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good
Brittle Point	D-746	°C	-60	-60	-60	-60	-60	-60	-60	-60	-60	-60	-55	-40	-30

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