ExxonMobil

Grade slate

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ExxonMobil Chemical's broad range of Vistalon™ ethylene propylene diene (EPDM) rubber grades are used in a wide variety of applications in the automotive, consumer, and industrial sectors. They deliver heat-resistant part performance and processing benefits that exceed those provided by natural and general-purpose rubbers. They also offer cost-effective, high-performance solutions that provide ozone and UV resistance, water and polar fluid resistance, heat resistance up to 175°C, low temperature flexibility , elastic properties under compression, excellent physical properties at high filler loadings and outstanding electrical insulation. With more than 55 years of leadership in EPDM rubber technology, we offer expertise in both metallocene and Ziegler-Natta-based EPDM rubber processes and continue to meet changing application needs globally.

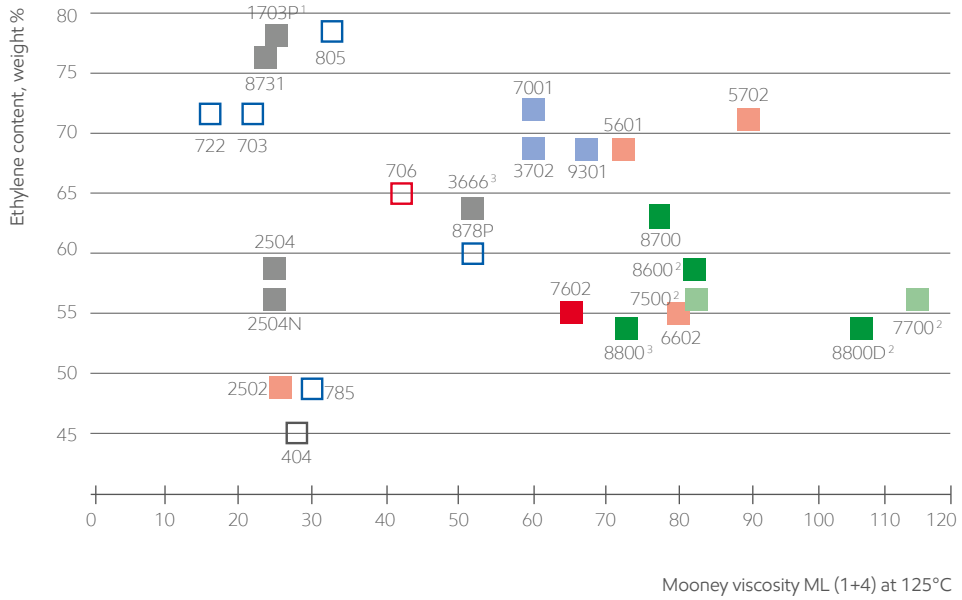
Typical properties

Grade	Oil phr	Mooney viscosity ML (1+4 at 125°C) ASTM D1646	Ethylene weight % ASTM D3900	ENB weight % ASTM D6047	MWD type	Form
Copolymers						
404	-	28	45	-	Very broad	Dense bale
703	-	21	72	-	Narrow	Bale
706	-	42	65	-	Medium	Dense bale
722	-	17	72	-	Narrow	Pellet
785	-	30	49	-	Narrow	Bale
805	-	33	78	-	Narrow	Crumb
878P	-	52	60	-	Narrow	Pellet
Terpolymers - low to medium diene						
1703P	-	25	77	0.9[1]	Very broad	Pellet
2502	-	26	49	4.2	Medium	Semi-dense bale
2504	-	25	58	4.7	Broad	Dense bale
2504N	-	25	56	3.8	Broad	Dense bale
3666	75	52	64	4.5	Broad	Dense bale
3702	-	60	69	2.8	Narrow	Pellet
5601	-	72	69	5.0	Medium	Pellet
5702	-	90	71	5.5	Medium	Pellet
6602	-	80	55	5.2	Medium	Semi-dense bale
7001	-	60	73	5.0	Narrow	Pellet
7500	-	82[2]	56	5.7	Bimodal	Semi-dense bale
7700	-	115[2]	56	7.0	Bimodal	Dense bale
8731	-	24	76	3.3	Broad	Dense bale
9301	-	67	69	2.8	Narrow	Pellet
Terpolymers - high diene						
7602	-	65	55	7.5	Medium	Semi-dense bale
8600	-	81[2]	58	8.9	Bimodal	Semi-dense bale
8700	-	78	63	8.0	Bimodal	Semi-dense bale
8800D	-	108[2]	54	10.0	Bimodal	Semi-dense bale
8800	15	73	54	10.0	Bimodal	Semi-dense bale

The availability of specific Vistalon™ EPDM rubber grades may vary by region.

[1] VNB used as diene
[2] ML (1+8) at 125°C

Vistalon™ EPDM rubber copolymers and terpolymers



Molecular weight distribution (MWD)

	Terpolymers ENB>7%	Terpolymers ENB ≤7%	Copolymers
Narrow	■	■	□
Medium	■	■	□
Broad	■	■	□
Bimodal	■	■	

[1] VNB used as diene [2] ML (1+8) at 125°C [3] Oil-extended

Vistalon grades features and typical applications

	Sponge	Dense profiles	Hose and belts	Seals, gaskets and pads	Roofing and sheeting	Electricals
Applications	▪ Extruded profiles ▪ Molding (low or high pressure) ▪ SG from 0.3 to 0.9	▪ Auto sealing ▪ Building profiles ▪ Sulfur or peroxide cure	▪ Hydraulic ▪ Air ▪ Steam ▪ Water	▪ Gaskets ▪ O-rings ▪ Mechanical goods ▪ Appliances	▪ Flat and low-slope roofs ▪ Pond liners ▪ Geomembranes	▪ Insulation ▪ Medium voltage ▪ Low voltage ▪ Jacketing
Key polymer features	▪ Oil loading ▪ Molecular weight ▪ Collapse resistance ▪ Low temperature flexibility	▪ Class A surface ▪ Snappiness ▪ Extrusion consistency ▪ Cost effectiveness	▪ Collapse resistance ▪ Green strength ▪ Filler loading ▪ Heat aging ▪ Compression set	▪ Processing and flow ▪ Compound viscosity ▪ Physicals	▪ Heat aging ▪ UV resistance ▪ Filler loading ▪ Extreme weather ▪ Processing	▪ Resistivity ▪ Loss factor
Vistalon EPDM grades	▪ 7602 ▪ 8600 (bimodal) ▪ 8800D (bimodal) ▪ 8800 (bimodal)	▪ 3666 ▪ 7500 ▪ 5601 ▪ 7602 ▪ 5702 ▪ 7700 ▪ 6602 ▪ 8700 ▪ 7001	▪ 706 ▪ 6602 ▪ 3666 ▪ 7001 ▪ 3702 ▪ 7500 ▪ 5601 ▪ 7700 ▪ 5702 ▪ 8700	▪ 2502 ▪ 6602 ▪ 2504 ▪ 7001 ▪ 2504N ▪ 3666 ▪ 7500 ▪ 5601 ▪ 7700 ▪ 5702	▪ 3702 ▪ 7700 ▪ 5601 ▪ 9301 ▪ 5702 ▪ 6602 ▪ 7500	▪ 722 ▪ 5702 ▪ 1703P ▪ 7001 ▪ 2504 ▪ 8731 ▪ 2504N ▪ 3702 ▪ 5601
Vistalon EPDM value	▪ Fast extrusion ▪ Easy geometry control ▪ Fast cure ▪ Good compression set **Bimodal properties** ▪ Up to 15% faster mixing cycle ▪ Single-pass mixing ▪ Outstanding long term compression set ▪ Soft, thin wall	**Amorphous backbone (6602, 7500, 7700)** **Tailored compound properties depending on blend partner:** ▪ High elasticity (3666, 7602) ▪ Improved green strength, physicals and filler loading (5601, 5702, 7001) ▪ High temperature resistance (706, 3702) ▪ Short injection cycle, oil free compounds (2502, 2504)			▪ Long term performance ▪ Excellent calendaring and autoclave curing (3702, 9301) ▪ Rotocure, CV cure (others)	▪ High range MV: 722 or 1703P for outstanding MV insulation Other MV: 2504 or 8731 ▪ LV: 3702, 5601, 5702 and 7001 ▪ Molded connectors (2504/2504N) ▪ Blend partner with XLPE for enhanced flexibility (722)

Contact us for more information:
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S0817-069E49

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