

ZEON

2017 PRODUCT GUIDE





ZETPOL® HYDROGENATED NITRILE ELASTOMERS (HNBR) provide superior service in tough environment applications. Zetpol shows not only much higher resistance than NBR elastomers to heat, sour gasoline, and ozone, but it also provides excellent retention of properties at temperatures ranging from -40°C to 160°C. When properly compounded, Zetpol is suitable for applications where high strength at high temperature is required. Zetpol displays lower brittleness temperature than NBR with the same volume swell in gasoline, is more cost effective than FKM, and exhibits minimal deterioration when exposed to special oil additives. Zetpol resists crude oil, diesel oil, amine corrosion inhibitors, steam, and acids, making it an excellent choice for molded parts and hoses used in oil field applications, both exploration and production. Zetpol provides excellent service up to 125°C in both animal fat- and vegetable fat-based biodiesel fuels, providing superior service in hose, gaskets, and seals used in automotive and heavy vehicle operations. Finally, Zetpol offers excellent service in multi-rib and timing belt applications due to its long-term dynamic performance, strength, and ozone resistance.



HYTEMP® POLYACRYLATE ELASTOMERS (ACM) are ideally suited for applications requiring long-term performance in severe temperature and fluid environments. HyTemp can be compounded to withstand an impressive temperature range from -40°C to 200°C. These elastomers offer excellent long-term heat and compression set resistance while providing superb resistance to petroleum and synthetic-based lubricants. HyTemp can be tailored to specific material specifications through the proper choice of elastomer grade. To accommodate multiple application needs, a wide range of HyTemp grades are available. Representing some of the industry's most advanced innovations, HyTemp yields exceptional compressive stress relaxation performance in high-temperature sealing functions. HyTemp can be processed using all common thermoset methods, including compression, transfer, injection molding, calendaring, and extrusion. These characteristics make HyTemp ideal for automotive under-hood applications such as transmission seals, engine seals, and both oil- and air-management hoses. Industrial applications include binders, adhesives, and seals.



HYDRIN® ELASTOMERS (CO/ECO/GECO), based on polyepichlorohydrin, have an excellent balance of properties for automobile applications. They exhibit notable low-temperature flexibility and adjustable dampening characteristics in addition to heat, oil, and fuel resistance. More recently, Hydrin elastomers have shown a good balance of price and performance in the biofuel market. With superb resistance to biodiesel fuels and ozone, Hydrin is a viable material for hose cover stock. The homopolymer Hydrin H (CO) shows superior permeation resistance to gases and air, while the copolymer (ECO) and terpolymer (GECO) products are inherently static-dissipative. GECO is an excellent candidate for charge and developer rolls in laser printers. A low-Mooney terpolymer for rolls with enhanced conductivity is now available. Terpolymers can be sulfur or peroxide cured.



CHEMISAT® HYDROGENATED NITRILE ELASTOMER LATEX (HNBR) is an innovative latex offering an operating range up to 150°C, with low-temperature flexibility and advanced adhesive properties. HNBR resists oils, fluids, ozone, and abrasion. Chemisat, unlike conventional HNBR processes, involves hydrogenation of latex without intervening conversion to a dry HNBR. Therefore, it offers superior performance for applications such as fabric coatings, non-woven binding, paper saturation, high-temperature bindings, film and coatings, and other similar applications that require heat and oil resistance.



NIPOL® NITRILE ELASTOMERS (NBR) are recommended when oil or solvent resistance is needed for the proper functioning of rubber parts. Nipol elastomers are available in a broad range of acrylonitrile content to ensure optimal performance in a variety of conditions. As acrylonitrile content is increased, fuel, oil, and solvent resistance improve; white low-temperature flexibility and resiliency are improved as acrylonitrile content decreases. To obtain a broad spectrum of hardnesses and other essential properties, Nipol elastomers can be blended to achieve optimal performance. Nipol elastomers are the best value for all but the most demanding oil, heat, and chemical applications, and are available in powder, crumb, liquid, and bale forms. Nipol elastomers are especially suitable for thermoplastics and thermoset modification and they are also used as additives in coatings and adhesives.

NIPOL AND SIVIC® POLYBLENDs provide a variety of advantages including ozone, oil, and fuel resistance as well as ease of formulating, vulcanization, and processing. Nipol and Sivic polyblends are ideal for industrial hose covers, automotive fuel hose, cable jackets, irrigation hose, cellular foam, soft rolls, and other low-hardness articles. These products are readily available and offer high-quality characteristics unsurpassed in the industry.

DUOMOD® TOUGHENERS offer the performance needed in the next generation of high-tech composites. These tougheners are pre-crosslinked carboxyl functional powders designed to modify epoxy resins to improve interlaminar fracture toughness, tack, and damage tolerance and are used in a wide range of applications, including aircraft/aerospace, wind/green energy, recreation/sporting goods, automotive, industrial, and construction. DuoMod products do not significantly affect flexural or thermal properties of composite laminates, and the performance improvements are typically independent of resin processing conditions. DuoMod particulate tougheners are also useful in prepregs and adhesives.

ZEALLOY® POLYMERS are designed for nontraditional applications, such as friction products and plastics modification. They are effective additives for providing impact resistance and flexibility to PVC and other thermoplastic formulations. Zealloy polymers provide improved resistance to deformation at elevated temperatures and improved embossing of calendered and thermoformed products compared with conventional additives. They also offer negligible volatility and migration and are resistant to extraction by a wide range of chemicals. Zealloy polymers do not significantly affect compound flow characteristics, making them especially well suited for complex injection molded parts and parts molded under low pressure. Pre crosslinked Zealloy polymers are recommended for extruded and calendered goods where low nerve and resistance to sag are required. Zealloy polymers are available in particulate form or as fine powders with PVC or mineral partitioning agents.

NIPOL POLYISOPRENE ELASTOMERS are similar to natural rubber in structure and properties, exhibiting good inherent tack, high compound gum tensile, low hysteresis and good hot tensile properties. In addition, Nipol Polyisoprene offers easier processability for improved consistency and quality. Choosing these synthetic polymers means less mechanical work and breakdown are required, mix cycles are shorter, and pre-massing can be eliminated when used as a direct replacement for natural rubber. Altogether, Nipol Polyisoprene elastomers are ideal for use in tires, camelback, conveyor belts, V-belt, packings, seals, footwear, rubber thread, coated fabrics, and other molded and extruded goods.

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Nipol® Nitrile Elastomers

Product Grade	% ACN	Mooney Viscosity	Specific Gravity	Hot/ Cold	AO Type	Special Properties / Applications
1000x132	50	45-65	1.02	C	SS	Ultra-high ACN level for maximum oil and fuel resistance and low gas permeability.
DN003	50	73-83	1.02	C	SS	Very high ACN level for excellent resistance to oils and fuels. Low fuel permeability.
DN4580	45	73-87	1.00	C	NS	High ACN for balance of low temperature, fuel resistance, and low fuel permeability.
DN4555	45	48-63	1.00	C	NS	High ACN for balance of low temperature, fuel resistance, and low fuel permeability.
DN4555A	45	42-52	1.00	C	NS	Slightly lower Mooney grade of DN4555.
1001CG	41	70-95	1.00	H	SS	Excellent oil and fuel resistance. Has controlled cement viscosity. Useful in adhesives.
1001LG	41	70-90	1.00	H	NS	Similar to 1001CG, but can be dissolved in solvents without milling. Contains no fatty acids or soaps.
1051	41	63-78	1.00	C	NS	Easy-processing version of Nipol 1041 with similar properties. Widely used in the petroleum industry.
1031	41	55-70	1.00	C	NS	Excellent fuel and water resistance. Very low corrosion to metals.
1041	41	77-88	1.00	C	NS	Intermediate Mooney viscosity nitrile rubber.
1041L	41	58-68	1.00	C	NS	Special purpose, intermediate Mooney viscosity nitrile rubber. Combines excellent physical properties and processability with very high oil resistance. Recommended for oil field parts and other applications requiring high oil resistance.
DN4080	40	73-88	1.00	C	NS	Low mold fouling, fast curing and easy processing. High oil and fuel resistance.
DN4050	40	45-60	1.00	C	NS	Low mold fouling, fast curing and easy processing. High oil and fuel resistance.
4040S	40	30-40	1.00	C	NS	Low viscosity polymer with excellent processing characteristics. Ideal for stator applications.
DN3650	36	45-55	0.98	C	NS	Low mold fouling, fast curing and easy processing. Good balance of low-temperature properties and solvent resistance.
DN3635	36	30-40	0.98	C	NS	Low mold fouling, fast curing and easy processing. Good balance of low-temperature properties and solvent resistance.
3640S	36	30-40	.98	C	NS	Low viscosity polymer with excellent processing characteristics. Ideal for stator applications.
DN3380	33	75-85	0.98	C	NS	Low mold fouling, fast curing and easy processing. Good balance of low-temperature properties and solvent resistance.
1042	33	73-83	0.98	C	NS	General-purpose, high Mooney viscosity nitrile rubber.
DN214	33	70-85	0.98	C	NS	Pre crosslinked to decrease die swell and nerve in extruded goods. May be blended with other polymers to improve extrusion. Excellent as a compounding ingredient in PVC and ABS.
1052	33	45-60	0.98	C	NS	Excellent general-purpose nitrile. Provides exceptional processing and blending with other polymers.
1032J	33	44-58	0.98	C	NS	Excellent water resistance with very low metal corrosion. Very good building tack.
DN3350	33	45-55	0.98	C	NS	Low mold fouling, fast curing and easy processing. Good balance of low-temperature properties and solvent resistance.
1052J	33	41-51	0.98	C	NS	General-purpose, intermediate Mooney viscosity nitrile rubber.
DN3335	33	30-40	0.98	C	NS	Low mold fouling, fast curing and easy processing. Good balance of low-temperature properties and solvent resistance.
1052-30	33	25-40	0.98	C	NS	Low Mooney version of Nipol 1052.
DN219	33	20-35	0.98	C	NS	General-purpose, low Mooney viscosity nitrile rubber. Designed for injection molding and resistance to mold fouling.
1092-80	32	70-85	0.98	C	NS	Provides a good blend of tack, physical properties and water resistance.

Nipol® Nitrile Elastomers

Product Grade	% ACN	Mooney Viscosity	Specific Gravity	Hot/ Cold	AO Type	Special Properties / Applications
DN202	32	58-68	0.98	C	NS	General-purpose, intermediate Mooney viscosity nitrile rubber for industrial and automotive hoses and seals, printing rolls and applications requiring easy processing.
1043	30	73-83	0.97	C	NS	General-purpose nitrile rubber for industrial and automotive hoses and seals.
1053	29	45-60	0.97	C	NS	Used where low temperature and good mold flow are required. Easier processing than Nipol 1043.
DN2880	28	75-85	0.97	C	NS	Low mold fouling, fast curing and easy processing. Good balance of low-temperature flex and solvent resistance.
DN302H	28	73-83	0.97	C	NS	General-purpose, low ACN, high Mooney viscosity NBR.
DN302	28	58-68	0.97	C	NS	General-purpose, low ACN, medium Mooney viscosity NBR.
DN2850	28	45-55	0.97	C	NS	Low mold fouling, fast curing and easy processing. Good balance of low-temperature properties and solvent resistance.
N917	23	55-70	0.95	C	SS	Medium-high viscosity for compression/transfer molding. Provides oil resistance and operating service of -50°C to 125°C. High resilience. Low water swell.
1094-80	22	65-80	0.95	C	NS	Low temperature resistance with outstanding physical properties.
1034-60	21	55-70	0.95	C	SS	Provides low temperature and very good water resistance.
DN401L	19	60-70	0.94	C	NS	Very good low temperature flexibility and good processing properties. Higher-viscosity version of Nipol DN401LL.
DN401LL	19	32-44	0.94	C	NS	Very good low temperature flexibility and low viscosity for superior processing properties.

Nipol® Carboxylated Nitrile Elastomers

Product Grade	% ACN	Mooney Viscosity	Specific Gravity	Hot/ Cold	AO Type	Special Properties / Applications
NX775	27	35-53	0.98	C	NS	Scorch resistant grade with excellent processing characteristics. Used in high-performance injection molding, rolls, calendered belting, and extruded hose. Carboxyl content is 0.083 EPHR.
1072	27	40-55	0.98	C	NS	Oil-resistant mechanical goods with outstanding abrasion resistance. Carboxyl content is 0.075 EPHR.
1072CGJ	27	30-40	0.98	C	NS	Higher Mooney grade of 1072CGX.
1072CGX	27	20-30	0.98	C	NS	Cement-grade version of Nipol 1072. Excellent modifier for composite resin systems, prepreg and towpreg, as well as adhesives.
1072X28	27	35-55	0.98	C	NS	Pre crosslinked version of Nipol 1072. Exhibits very low nerve for extrusion and calendered goods.

Nipol Terpolymer Elastomers

Product Grade	% ACN	Mooney Viscosity	Specific Gravity	Hot/ Cold	AO Type	Special Properties / Applications
DN1201	36	73-83	0.98	C	NS	Acrylonitrile-butadiene-isoprene terpolymer. Has better physicals and processing than conventional nitrile rubber. Used for rolls, diaphragms, and rubber thread.
DN1201L	36	38-53	0.98	C	NS	Low Mooney version of DN1201.

Nipol Liquid Nitrile Elastomers

Product Grade	% ACN	Specific Gravity	Hot/ Cold	AO Type	Viscosity (cps)	Special Properties / Applications
1312	28	0.96	H	NS	20,000-30,000	Plasticizer used for nitrile, neoprene and PVC compounds. Improves knitting and flow. May also be used in plastisols and phenolic resins.
1312LV	26	0.96	H	NS	9,000-16,000	Low viscosity version of Nipol 1312.

Nipol® Nitrile Powder and Crumb Elastomers

Product Grade	% ACN	Mooney Viscosity ¹	Cement Viscosity (cps)	Median Particle Size (mm)	TG, (°C) Typical Value	Hot/ Cold	Special Properties / Applications
1401LG	41	70-90	1,000-10,000	9.5	-18	H	Ground crumb with silica partitioning agent. Good solubility for use in adhesive applications.
1411	38	N/A	N/A	0.1	-19	H	Very fine crosslinked powder ideal for phenolic resin modification. Widely used in friction products. Contains talc partitioning agent.
1442	33	75-90	2,000-10,000	9.5	-25, -35	C	Crumb rubber with talc partitioning agent. Used in coal tar and asphalt modification.
1472X	27	22-35	100-1,500	9.5	-18, -31	C	Carboxylated nitrile crumb, used in epoxy modification, for adhesives and composites. Contains talc partitioning agent.

Zelloy® Modifiers for Thermoplastics

Product Grade	% ACN	Mooney Viscosity ²	Specific Gravity	Median Particle Size (mm)	TG, (°C) Typical Value	Partitioning Agent	Special Properties / Applications
1422	33	N/A	0.98	0.1	-26	Mixed	Very fine crosslinked powder used as a flexibilizer for PVC compounds.

DuoMod® Tougheners

Product Grade	Median Particle Size (microns)	TG, (°C) Typical Value	Special Properties / Applications
DP5045F	20	-5	Crosslinked, carboxyl-functional elastomer in fine powder form designed for toughening epoxy resins used in high-performance composites.

1 Measured on the base nitrile portion.
2 Measured on the rubber portion.

Nipol® and Sivic® Polyblends and Oil-Extended Nitrile Elastomers

Product Grade	NBR/PVC Ratio	% ACN ¹	Mooney Viscosity	Specific Gravity	Type ³	Special Properties / Applications
Nipol Types						
DN508SCR	70/30	38	40-50 ⁴	1.08	PB	A fully fluxed NBR/PVC polyblend. Used in hose covers, shoe soles, and cable jackets.
1203W	70/30	33	55-70	1.07	PB	A fully fluxed NBR/PVC blend with improved ozone and abrasion resistance. Used in hose covers, shoe soles, and cable jackets.
DN171	70/30	30	66-81	1.06	PB	A fully fluxed NBR/PVC blend with improved ozone and abrasion resistance. Used in hose covers, shoe soles, and cable jackets.
Sivic² Types (All Sivic types are mechanically blended, fully fluxed, and screened for a high degree of purity and uniformity.)						
Z760	70/30	45	49-61 ⁴	1.07	PB	Highest ACN content for maximum fuel resistance.
Z740	70/30	41	45-57 ⁴	1.06	PB	High ACN content for improved fuel resistance in automotive applications.
Z730	70/30	33	66-78	1.06	PB	Medium ACN, high viscosity base polymer for improved physical properties and good extrudability. Used for industrial cable and hose.
Z730M60	70/30	33	56-68	1.06	PB	A low viscosity version of Z730 for faster processing.
Z711	70/30	28	62-74	1.06	PB	Low ACN base polymer with good extrudability and cold flex properties. Used for industrial and automotive cable and hose applications.
Z711LV	70/30	28	57-69	1.06	PB	A low viscosity version of Z711 for faster processing.
Z700PX	70/30	26	59-71	1.06	PB	Carboxylated NBR base polymer. Improved abrasion resistance for printing rolls, conveyor belts, and shoe soles.
Z702	70/30	23	61-73	1.06	PB	Lowest ACN content for improved cold flexibility. Automotive and industrial cable, hose and belt applications.
Z620	60/40	33	48-58 ⁴	1.09	PB	Fuel, ozone and fire resistant blend for automotive and general-purpose cable, belting, and hose applications.
Z530	50/50	33	55-65 ⁴	1.13	PB	Improved fuel, ozone, and fire resistance for hose covers, cable jackets, conveyor belts, and cellular goods.
Z2710	60/40	33	16-26	1.04	PB/PP	Pre-plasticized with 70 phr phthalate-free plasticizer. Excellent for low-durometer applications such as soft printing rolls.

Chemisat® HNBR Latex

Product Grade	% ACN	% Solids	Special Properties / Applications
LCH-7302X	38	34	Ionic dispersion of a hydrogenated acrylonitrile butadiene latex. Requires a sulfur curing system to develop optimal properties that render it resistant to hydrocarbons, oils, and plasticizers.

1 Measured on the base nitrile portion.

2 Sivic is a registered trademark of Sidiac, Touvre, France. Reprinted by permission.

3 PB = Polyblend; PP = Pre-plasticized.

4 MS (1+4) @ 100°C.

Zetpol® HNBR Hydrogenated Nitrile Elastomers

Product Grade	% ACN	Mooney Viscosity	Specific Gravity	% HYD	Iodine Number	Special Properties / Applications
0020	50	58-72	1.00	91	23	Maximum fuel and solvent resistance. Excellent performance in flex fuel and MTBE.
1000L	44	58-72	0.98	98	9	Low viscosity polymer for transfer or injection molding for fuel and oil field applications. FDA-compliant.
1010	44	78-92	0.98	96	10	For fuel resistant hose, diaphragms, and seals in automotive and industrial refrigerant applications. FDA-compliant.
1020	44	71-85	0.98	91	24	Sulfur-curable for fuel-resistant hose, diaphragm, and seal applications. FDA compliant.
1020L	44	47-67	0.98	91	24	Low viscosity version of 1020. FDA compliant.
2000	36	78-92	0.95	> 99.5	7	For O-rings, gaskets, seals, and oil field components requiring the best heat and ozone resistance. FDA-compliant.
2000L	36	58-72	0.95	> 99.5	7	Low viscosity version of 2000. FDA compliant.
2001	40	88-102	0.95	> 99.5	7	Improved balance of oil resistance and low-temperature properties.
2001L	40	63-77	0.95	> 99.5	8	A lower viscosity version of 2001
2010H	36	> 120	0.95	96	11	Ultra high viscosity version of 2010. Offers excellent extrusion resistance. FDA compliant.
2010	36	78-92	0.95	96	11	For O-rings, gaskets, seals, and oil field components requiring the best balance of heat resistance and compression set. FDA compliant.
2010L	36	50-65	0.95	96	11	Low viscosity version of 2010. FDA compliant.
2011L	36	53-63	0.95	94	18	For belts. Provides excellent balance between static heat resistance and dynamic hysteresis.
2020	36	71-85	0.95	91	28	For seals, rolls, belts, and oil field components. Provides excellent balance between static heat resistance and dynamic hysteresis. FDA compliant.
2020L	36	50-65	0.95	91	28	Low viscosity version of 2020. FDA compliant.
2030H	36	> 110	0.95	85	37	Ultra high viscosity version of 2030L. Especially suited for dynamic applications. FDA compliant.
2030L	36	50-65	0.95	80	57	Highest level of unsaturation available. Provides excellent dynamic properties. Especially suited for rolls and dynamic oil field component applications. FDA compliant.
3300	24	60-100	0.97	95	10	Improved low-temperature performance (TR10 of -33°C), providing a good balance of oil resistance and low-temperature performance. Fully saturated version of 3310 for improved high-temperature capabilities.
3310	24	60-100	0.97	95	15	Improved low-temperature performance (TR10 of -33°C), providing a good balance of oil resistance and low-temperature performance. High saturation percentage allows for good balance of heat resistance and crosslink density.
4300	19	55-95	0.95	> 99.5	10	Outstanding low-temperature performance with the heat resistance of a fully saturated HNBR. Designed for extreme service conditions (TR10 of -36°), with good fluid resistance.
4310	19	52-72	0.98	95	15	Excellent low-temperature performance (TR10 of -36°C) for arctic applications.

Zetpol HP HNBR Hydrogenated Nitrile Rubber – High-Performance

Product Grade	Bound Acrylonitrile (% by weight)	Mooney Viscosity ML 1+4, 100° C	Specific Gravity	Iodine Value [g/100g]	Main Characteristics & Applications
2510	35	35-55	0.95	max. 12	Superior compression-set performance. Stable physical properties at elevated temperatures.
3710	23	45	0.95	max. 12	Superior compression set and improved balance of oil and fuel resistance vs. low-temperature properties. Improved resistance to polycyclic aromatic hydrocarbons.
3610	21	45	0.95	max. 12	Superior compression-set performance. Improved low-temperature flexibility compared with Zetpol 2510.

Zetpol® EP HNBR Hydrogenated Nitrile Rubber – Easy-Processing Grades

Product Grade	% ACN	Mooney Viscosity	Specific Gravity	% HYD	Iodine Number	Special Properties / Applications
1010EP	44	23-37	0.98	96	10	Easy-processing version of 1010 for improved flow characteristics. Excellent for injection molding applications.
2001EP	40	23-37	0.95	>99.5	7	Easy-processing version of 2001 for improved flow characteristics. Excellent for injection molding applications.
2000EP	36	23-37	0.95	> 99.5	7	Easy-processing version of 2000L for improved flow characteristics. Excellent for injection molding applications.
2010EP	36	23-37	0.95	96	11	Easy-processing version of 2010L for improved flow characteristics. Excellent for injection molding applications.
2020EP	36	23-37	0.95	91	28	Easy-processing version of 2020L for improved flow characteristics. Excellent for injection molding applications.
3310EP	25	23-37	0.97	95	15	Easy-processing version of 3310 for improved flow characteristics. Excellent for injection molding applications.
4300EP	17	23-37	0.95	>99.5	10	Easy-processing version of 4300 for improved flow characteristics. Excellent for injection molding applications.
4310EP	17	23-37	0.98	95	15	Easy-processing version of 4310 for improved flow characteristics. Excellent for injection molding applications.

Zetpol ZLX HNBR LATEX Hydrogenated Nitrile Rubber

Product Grade	Bound Acrylonitrile (% by weight)	Brookfield-Viscosity [mPa-s]	pH	Iodine Value [g/100g]	Main Characteristics & Applications
2230LX	33	max 50	8-10	28-40	Zetpol HNBR Latex for cord and fabric treatments for timing belt applications. Can be used for dipping applications to improve performance compared with NBR Latex.

Zeoforte® ZSC HNBR Nano-Composite Hydrogenated Nitrile Rubber – ZEON Super Composite

Product Grade	Bound Acrylonitrile (% by weight)	Mooney Viscosity ML 1+4, 100° C	Specific Gravity	Iodine Value [g/100g]	Main Characteristics & Applications
ZSC 2195H	36 ¹	70-90 ²	1.24	11 ¹	Highly saturated Zetpol composite with outstanding mechanical properties at high hardness. CX grades designed for maximum dynamic performance.
ZSC 2195LCX	36 ¹	55 - 90	1.24	11 ¹	
ZSC 2195CX	36 ¹	80 - 110	1.24	11 ¹	
ZSC 2295L	36 ¹	60 - 100	1.24	28 ¹	Zetpol composite, new grades with high dimensional stability and low-heat building, excellent tear resistance, abrasion resistance, and good elongation at high hardness. Excellent dynamic properties. Used for timing belts, poly-V-belts, and printing rollers.
ZSC 2295CX	36 ¹	75 - 110	1.24	28 ¹	
ZSC 2395	36 ¹	60 - 80	1.24	56 ¹	Low saturated Zetpol composite with very good compression set resistance, outstanding dynamical properties. For paper and steel rollers.

¹ Measured on base polymer.

² Temporary specification, MS 1+4, 100°C

HyTemp® Polyacrylate Elastomers

Product Grade	% Volume Swell ¹	Gehman ² T100 (°C)	Mooney Viscosity	Specific Gravity	Curesite	Special Properties / Applications
4051EP	11%	-18	35-47	1.1	Dual	Fast cure rate, low compression set, and maximum oil resistance.
4051CG	11%	-18	25-37	1.1	Dual	Cement-grade version of 4051EP.
4451CG	11%	-18	25-37	1.1	Dual	Particulate version of 4051CG. Suitable for adhesives, caulks, sealants, and binders.
4065	16%	-30	27-45	1.1	Dual	Excellent oil, heat and compression set resistance with good low-temperature properties.
4052EP	17%	-32	25-35	1.1	Dual	Improved low-temperature properties, with slightly less oil resistance than 4051 types. Excellent compression set resistance.
4053EP	24%	-42	23-31	1.1	Dual	Excellent balance of low-temperature properties and oil resistance.
4054	63%	-41	22-34	1.1	Dual	Moderate oil resistance, with -40°C low-temperature service.
4454	63%	-41	22-34	1.1	Dual	Particulate version of 4054.
AR71	11%	-18	42-54	1.1	Chlorine	175°C high-temperature service and excellent oil resistance.
AR71L	11%	-18	29-41	1.1	Chlorine	Low viscosity version of AR71.
AR715	15%	-24	27-39	1.1	Chlorine	Improved low-temperature service and excellent oil resistance.
AR72LF	22%	-28	28-36	1.1	Chlorine	Excellent balance of low-temperature service and oil resistance. Easy processing.
AR74	28%	-40	29-36	1.1	Chlorine	Excellent balance of low-temperature (-40°C) service and oil resistance.
PV04	45%	-30	25-40	1.1	Proprietary	Peroxide-curable elastomer suitable for O-rings, seals, and gaskets. Also used for binders, adhesives, caulks, and plastics modification.

HyTemp High-Performance Polyacrylate Elastomers – “HT-ACM”

Product Grade	% Volume Swell ¹	Gehman ² T100 (°C)	Mooney Viscosity	Specific Gravity	Curesite	Special Properties/Applications
AR12	30%	-30	28-38	1.1	Proprietary	Optimized for improved long-term heat and compression set resistance over traditional acrylates, with good low-temperature properties.
AR12B	30%	-30	28-38	1.1	Proprietary	Faster cure rate version of AR12.
AR14	30%	-40	28-38	1.1	Proprietary	Suitable for seal/gasket applications requiring low temperature flexibility.
AR22	26%	-27	37-47	1.1	Proprietary	Higher tensile strength version of AR12, with improved fluid resistance.
AR212HR	24%	-25	34-44	1.1	Proprietary	Optimized for extrusion applications. Excellent scorch safety and heat resistance.
AR212XP	24%	-25	34-44	1.1	Proprietary	Higher tear strength and improved extrusion version of AR212HR.
H570	40%	-37	30-40	1.1	Proprietary	Optimized for a broad temperature range with excellent long-term heat resistance. Very good resistance to contaminated engine lubricants.

HyTemp Polyacrylate Curatives and Additives

Product Grade	Specific Gravity	Chemical Name	Special Properties/Applications
NS70	1.03	Sodium Stearate Dispersion	Standard cure agent for HyTemp 4050, 4060, and AR70 series (70% active).
NPC50	1.03	Quaternary Ammonium Compound	Non-post-cure agent used with HyTemp 4050, and 4060 series (50% active).
SC75	1.01	Amine Cure Package	Fast-cure package for HyTemp 4050 and 4060 series (75% active).
SR50	1.03	Proprietary Urea Compound	Retarder used with HyTemp 4050 and 4060 series (50% active).
HR200	N/A	Proprietary Antioxidant Package	Antioxidant package used for the retention of air-aged tensile strength in HT-ACM hose compounds.

Hydrin® Polyepichlorohydrin Elastomers

Product Grade	Mooney Viscosity	Specific Gravity	TG, (°C)	Special Properties / Applications
H45	40-50	1.37	-21	Outstanding permeation resistance to helium, hydrogen, nitrogen, air, and carbon dioxide.
H55	50-60	1.37	-21	Outstanding permeation resistance to helium, hydrogen, nitrogen, air, and carbon dioxide.
H65	60-70	1.37	-21	Outstanding permeation resistance to helium, hydrogen, nitrogen, air, and carbon dioxide.
H1100	52-65	1.35	-26	Outstanding permeation resistance to helium, hydrogen, nitrogen, air, and carbon dioxide. Can be sulfur or peroxide cured.
C2000	90-102	1.28	-41	Fuel pump diaphragms, hose, coated fabrics, and vibration mounts. Can also impart anti-static properties to plastics.
C2000M	75-90	1.28	-41	Medium viscosity version of C2000.
C2000L	65-75	1.28	-41	Low viscosity version of Hydrin C2000.
C2000LL	53-65	1.28	-41	Lower viscosity version of Hydrin C2000.
C2000XL	40-52	1.28	-41	Lowest viscosity version of Hydrin C2000 for optimal injection flow.
T3000	80-94	1.28	-43	Terpolymer of ECH/EO/AGE. Sulfur-curable, and can be blended with other elastomers.
T3000L	65-79	1.28	-43	Low viscosity Hydrin T3000.
T3000LL	50-64	1.28	-43	Lowest viscosity version of Hydrin T3000 for optimal injection flow.
T3100	63-77	1.31	-36	Highest AGE content terpolymer for enhanced cure state and ozone resistance.
T3102	80-100	1.31	-38	Highest ECH content terpolymer for improved heat and permeation resistance.
T3105	70-80	1.29	-41	High ECH and AGE content terpolymer for improved heat and ozone resistance.
T3106	53-67	1.26	-48	Higher EO content polymer, giving enhanced electrostatic dissipative properties. Designed for laser printer rolls.
T3108	40-54	1.23	-48	Highest EO content polymer, giving even lower volume resistivity. Intended for electrostatic dissipative applications.
T3108XL	10-25	1.22	-48	Improved processing and low hardness version of T3108.
T5010	75-100	1.27	-40	Good mill release and processing. Can be sulfur- or peroxide-cured.

Zisnet® Polyepichlorohydrin and Polyacrylate Curing Agents

Product Grade	Specific Gravity	Chemical Name	Special Properties / Applications
F-ET	1.56	Triazine Compound	A general-purpose curative for polyepichlorohydrin and polyacrylate rubber, used in place of ETU in Hydrin compounds. Zisnet F-ET gives improved heat resistance, less mold fouling and reduced toxicity. Oil-treated to reduce dusting.

NIPOL® Polyisoprene Elastomers

Product Grade	Cis-1.4%	Mooney Viscosity	Specific Gravity	AO Type	Special Properties / Applications
IR2200	98	75-90	0.91	NS	Tires, belts, packings, seals, footwear and other extruded and molded mechanical goods. Can be blended with other rubbers such as NR, SBR, BR, etc., and is applicable to transparent and light-color products.
IR2200L	98	65-80	0.91	NS	Low Mooney version of IR2200.

NIPOL Solution Polymerization-Type Elastomers

Product Grade	Bound Styrene (%)	Mooney Viscosity	Extended oil (phr)	Special Properties / Applications
NS116R	21	40-50	-	Well-balanced between wet skid and rolling resistance. Good for tires and vibration insulators.
NS612	15	55-69	-	Best performance for silica application. Low styrene type for all-season tires.
NS616	21	55-69	-	Best performance for silica application. Well-balanced between wet skid resistance and resilience.
NS460	35	43-55	37.5	Excellent balance between wet grip and low fuel consumption performance.
NS522	39	55-69	37.5	Excellent balance between wet grip and low fuel consumption performance.
BR1250H	0	45-55	-	Low-cis type polybutadiene elastomer.

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