



Rubber & Specialty Polymers Team / Tech-Center
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NBR 6240

NBR 6240 is a copolymer of butadiene and acrylonitrile manufactured by advanced emulsion polymerization technology of Goodyear and LG Chem.

NBR 6240 is a non staining, medium low mooney, and medium high acrylonitrile polymer designed to aid in processing operations such as extruding and calendering. NBR 6240 is a low temperature polymerized polymer, and such as, retains the excellent physical and processing properties of a cold nitrile rubber. NBR 6240 is recommended to use in packings, shoe products, chemically blown sponge, oil field products, industrial and automotive molded parts.

BASIC PROPERTIES		VULCANIZATE PROPERTIES	
Polymerization	Cold Emulsion	Recipes(ASTM D3187)	
Bound AN Content(%)	34.0	NBR 6240	100.0 phr
Volatile Matter(%)	0.3	HAF(IRB #8)	40.0
Ash(%)	Max. 0.5	ZnO	3.0
Stabilizer	Non-Staining	Stearic Acid	1.0
Mooney Viscosity(ML1+4,100℃)	41	TBBS	0.7
Color	Light Tan	Sulfur	1.5
Specific Gravity	0.99	Total	146.2
Packaging Information		Stress-Strain Properties	
Bale Weight	35kg	(ASTM D412, 145℃×50min. Cured)	
Bale wrapping film : LDPE		300% Modulus(kg/cm ²)	115
Shelf Life : 18 months from date of production at room temperatures not exceeding 30℃ under belowed storage condition (Retest critical parameters like MV and others after the expiry of shelf life).		Elongation(%)	610
Storage condition		Tensile (kg/cm ²)	289
NBR should be stored in warehouse to be protected from sunlight, heat, moisture and foreign materials.			

*The above data is a typical value, therefore there may be a slight difference between the elements of a supplied product and the data.



NBR 6240 PACKING STUDY

COMPOUND RECIPES		PROPERTIES OF COMPOUNDS	
NBR 6240	100 phr	Mooney Viscosity(ML1+4, 100°C)	51
Carbon Black(SRF)	80.0	Rheometer(MDR, 160°C × 12 min, 1 ° Arc, MDR)	
Zinc Oxide	5.0	ML(1b-in)	1.4
Stearic Acid	1.0	MH (1b-in)	23.6
Antioxidant(RD)	2.0	ts1 (min.)	1.2
Antioxidant(3-C)	1.0	Tc'50 (min.)	1.8
Plasticizer(DOP)	10.0	Tc'90 (min.)	2.8
Sulfur	0.5		
TT	1.0		
CZ	2.0		
Total	202.5		

Basic Properties(145°C × 20min. Cured)		
Hardness(shore A)		69
Elongation(%)		400
Tensile (kg/cm ²)		187
Circulating Oven Aging(100°C × 72hrs)		
Hardness Change(point)		+4
Tensile Change(%)		+5.6
Elongation Change(%)		-26.8
Aged ASTM #1 Oil(100°C × 72hrs)		
Hardness Change(point)		+4
Tensile Change(%)		+4.4
Elongation Change(%)		-27.7
Volume Swell(%)		-6.8
Aged ASTM #3 Oil(100°C × 72hrs)		
Hardness Change(point)		0
Tensile Change(%)		+4.9
Elongation Change(%)		-23.0
Volume Swell(%)		-2.8
Aged FUEL C(R.T°C × 72hrs)		
Hardness Change(point)		-24
Tensile Change(%)		-50.1
Elongation Change(%)		-46.9
Volume Swell(%)		+40.8
Compression Set(160°C × 30min. Cured)		
100°C × 72hrs(%)		21.1
Rebound(30°C, %)		43.1
AKRON Abrasion		0.2895

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