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

Polymerization	Cold Emulsion
Bound AN Content(%)	34.0
Volatile Matter(%)	0.3
Ash(%)	Max. 0.5
Stabilizer	Non-Staining
Mooney Viscosity(ML1+4,100℃)	41
Color	Light Tan
Specific Gravity	0.99

Packaging Information
Bale Weight 35kg
Bale wrapping film : LDPE

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).

Storage condition
NBR should be stored in warehouse to be protected from sunlight, heat, moisture and foreign materials.

VULCANIZATE PROPERTIES

Recipes(ASTM D3187)

NBR 6240	100.0 phr
HAF(IRB #8)	40.0
ZnO	3.0
Stearic Acid	1.0
TBBS	0.7
Sulfur	1.5
Total	146.2

Stress-Strain Properties
(ASTM D412, 145℃×50min. Cured)

300% Modulus(kg/㎠)	115
Elongation(%)	610
Tensile (kg/㎠)	289

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

LG Chem, Ltd.
● DAESAN PLANT : Tel 82-41-661-2702 FAX 82-41-661-2709
● R&D CENTER : Tel 82-42-866-5763 FAX 82-42-861-7146
● SEOUL OFFICE : Tel 82-2-3773-7923 FAX 82-2-3773-3071
● PUSAN OFFICE : Tel 82-51-801-2669 FAX 82-51-801-2650

NBR 6240 PACKING STUDY

COMPOUND RECIPES	
NBR 6240	100 phr
Carbon Black(SRF)	80.0
Zinc Oxide	5.0
Stearic Acid	1.0
Antioxidant(RD)	2.0
Antioxidant(3-C)	1.0
Plasticizer(DOP)	10.0
Sulfur	0.5
TT	1.0
CZ	2.0
Total	202.5

PROPERTIES OF COMPOUNDS	
Mooney Viscosity(ML1+4,100℃)	51
Rheometer(MDR,160℃×12 min,1°Arc, MDR)	
ML(lb-in)	1.4
MH (lb-in)	23.6
ts1 (min.)	1.2
Tc'50 (min.)	1.8
Tc'90 (min.)	2.8

Basic Properties(145℃×20min. Cured)	
Hardness(shore A)	69
Elongation(%)	400
Tensile (kg/㎠)	187
Circulating Oven Aging(100℃×72hrs)	
Hardness Change(point)	+4
Tensile Change(%)	+5.6
Elongation Change(%)	-26.8
Aged ASTM #1 Oil(100℃×72hrs)	
Hardness Change(point)	+4
Tensile Change(%)	+4.4
Elongation Change(%)	-27.7
Volume Swell(%)	-6.8
Aged ASTM #3 Oil(100℃×72hrs)	
Hardness Change(point)	0
Tensile Change(%)	+4.9
Elongation Change(%)	-23.0
Volume Swell(%)	-2.8
Aged FUEL C(R.T℃×72hrs)	
Hardness Change(point)	-24
Tensile Change(%)	-50.1
Elongation Change(%)	-46.9
Volume Swell(%)	+40.8
Compression Set(160℃×30min. Cured)	
100℃×72hrs(%)	21.1
Rebound(30℃, %)	43.1
AKRON Abrasion	0.2895

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