



LG Chem DAESAN PLANT

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RUBBER R&D TEAM :

NBR B6850

NBR 6850 is a copolymer of butadiene and acrylonitrile manufactured by advanced emulsion polymerization technology of Goodyear and LG Chem.

NBR 6850 is a non staining, medium mooney, and medium high acrylonitrile polymer designed for easy processing, high productivity and excellent elastic properties. NBR 6850 offers very low mold fouling, fast cure, and high resilience.

NBR 6850 is recommended to use in wide range of general purpose applications including injection molded o-rings, calendered belting, extruded hose and sponge.

NBR 6850 is a high mooney version of NBR 6840.

BASIC PROPERTIES		VULCANIZATE PROPERTIES	
Polymerization Bound AN Content(%) Volatile Matter(%) Ash(%) Stabilizer Mooney Viscosity(ML1+4,100℃) Color Specific Gravity Packaging Information Bale Weight Storage Condition Rubber should be stored in suitable condition such as no sunlight, no heat and dry place.	Cold Emulsion 33.2 0.5 0.5 Non-Staining 49.7 Light Tan 0.99 35kg	Recipes(ASTM D3187) NBR 6850 HAF(IRB #7) ZnO Stearic Acid TBBS Sulfur Total Stress-Strain Properties (ASTM D412, 145℃ × 50min. Cured) 300% Modulus(kg/cm ²) Elongation(%) Tensile (kg/cm ²)	100.0 phr 40.0 3.0 1.0 0.7 1.5 146.2 171 488 304

*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 6850 PACKING STUDY

COMPOUND RECIPES		PROPERTIES OF COMPOUNDS		
NBR 6850	100 phr	Mooney Viscosity(ML1+4,100℃)	62	
Carbon Black(SRF)	80.0	Rheometer (MDR, 160℃ × 12 min, 1 ° Arc, MDR)		
Zinc Oxide	5.0		ML(1b-in)	2.2
Stearic Acid	1.0		MH (1b-in)	29.4
Antioxidant (RD)	2.0		ts1 (min.)	0.8
Antioxidant (3-C)	1.0		Tc'50 (min.)	1.2
Plasticizer (DOP)	10.0		Tc'90 (min.)	1.6
Sulfur	0.5			
TT	1.0			
CZ	2.0			
Total	202.5			

Basic Properties(145℃ × 20min. Cured)		
Hardness(shore A)		71
Elongation(%)		406
Tensile (kg/cm ²)		190
Circulating Oven Aging(100℃ × 72hrs)		
Hardness Change(point)		+6
Tensile Change(%)		+12.3
Elongation Change(%)		-22.3
Aged ASTM #1 Oil(100℃ × 72hrs)		
Hardness Change(point)		+6
Tensile Change(%)		+9.5
Elongation Change(%)		-24.9
Volume Swell(%)		-6.6
Aged ASTM #3 Oil(100℃ × 72hrs)		
Hardness Change(point)		+1
Tensile Change(%)		+6.8
Elongation Change(%)		-20.0
Volume Swell(%)		-2.5
Aged FUEL C(R.T℃ × 72hrs)		
Hardness Change(point)		-24
Tensile Change(%)		-46.8
Elongation Change(%)		-50.7
Volume Swell(%)		+42.1
Compression Set(160℃ × 30min. Cured)		
100℃ × 72hrs(%)		20.4
Rebound(30℃, %)		49.1
AKRON Abrasion		0.3265

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