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NBR 3280

NBR 3280 is a copolymer of butadiene and acrylonitrile manufactured by cold emulsion polymerization technology of Goodyear Tire and Rubber Company, USA.

NBR 3280 is a non staining, high mooney viscosity, and high acrylonitrile polymer designed to aid in processing operations such as calendering and extruding for oil and fuel service products. NBR 3280 offers high resistance to fuels, solvents, oils and gas permeation, and also it can be used for economic compound by high loading of plasticizer on compound recipe.

NBR 3280 is recommended to use in industrial and automotive parts such as fuel hoses and packings.

BASIC PROPERTIES		VULCANIZATE PROPERTIES	
Polymerization	Cold Emulsion	Recipes(ASTM D3187)	
Bound AN Content(%)	41.5	NBR 3280	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°C)	80.5	TBBS	0.7
Color	Tan	Sulfur	1.5
Specific Gravity	0.99	Total	146.2
Packaging Information		Stress-Strain Properties	
Bale Weight	35kg	(ASTM D412, 145°C×50min. Cured)	
Bale wrapping film : LDPE		300% Modulus(kg/cm ²)	178
Shelf Life : 18 months from date of production at room temperatures not exceeding 30°C under belowed storage condition (Retest critical parameters like MV and others after the expiry of shelf life).		Elongation(%)	532
Storage condition		Tensile (kg/cm ²)	344
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.



- 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 3280 PACKING STUDY

COMPOUND RECIPES		PROPERTIES OF COMPOUNDS	
NBR 3280	100 phr	Mooney Viscosity(ML1+4,100°C)	90
Carbon Black(SRF)	80.0	Rheometer(MDR,160°C×12 min,1° Arc, MDR)	
Zinc Oxide	5.0	ML(lb-in)	3.1
Stearic Acid	1.0	MH (lb-in)	27.7
Antioxidant(RD)	2.0	ts1 (min.)	0.6
Antioxidant(3-C)	1.0	Tc'50 (min.)	1.2
Plasticizer(DOP)	10.0	Tc'90 (min.)	2.3
Sulfur	0.5		
TT	1.0		
CZ	2.0		
Total	202.5		

Basic Properties(145°C×20min. Cured)		
Hardness(shore A)		73
Elongation(%)		420
Tensile (kg/㎡)		227
Circulating Oven Aging(100°C×72hrs)		
Hardness Change(point)		+3
Tensile Change(%)		+2.4
Elongation Change(%)		-27.4
Aged ASTM #1 Oil(100°C×72hrs)		
Hardness Change(point)		+3
Tensile Change(%)		+0.7
Elongation Change(%)		-30.7
Volume Swell(%)		-8.3
Aged ASTM #3 Oil(100°C×72hrs)		
Hardness Change(point)		+1
Tensile Change(%)		+1.1
Elongation Change(%)		-28.1
Volume Swell(%)		-4.9
Aged FUEL C(R.T°C×72hrs)		
Hardness Change(point)		-21
Tensile Change(%)		-43.5
Elongation Change(%)		-46.8
Volume Swell(%)		+31.2
Compression Set(160°C×30min. Cured)		
100°C×72hrs(%)		17.4
Rebound(30°C, %)		41.1
AKRON Abrasion		0.2767

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