



NBR 4045

Acrylonitrile-butadiene rubber

- ▶ NBR 4045 is essentially an acrylonitrile (36-40%) and 1,3-butadiene copolymer obtained by emulsion polymerization method with the use of fatty acid soaps as emulsifier in accordance with the ecologically clean technology. High content of acrylonitrile, very high oil resistance.
- ▶ Product characteristics: appearance – bales from light-yellow to pink or light-beige color; weight of a bale $30 \pm 0,5$ kg;
- ▶ Shelf life is 1 year since the date of manufacture. Storage conditions: at the temperature not higher than $30\text{ }^{\circ}\text{C}$, in place protected from direct sunlight and atmospheric precipitation.
- ▶ Package: plywood 1,26 mt or plastic container 0,54 mt.

<i>Parameter</i>	<i>NBR 4045</i>	<i>Test method</i>
Mooney viscosity MML 1+4 (100 °C)	42-48	ASTM D 1646
Volatile matter content, wt %	$\leq 0,8$	ASTM D 5668
Ash content, wt %	$\leq 0,5$	ASTM D 5667
Acrylonitrile content, wt %	36-40	method of supplier
<i>ASTM D 3187 (method A), 145 °C × 50 min</i>		
Tensile stress at 300 % elongation, MPa	$\geq 11,8$	ASTM D412
Tensile strength, MPa	$\geq 23,5$	ASTM D412
Ultimate elongation, %	≥ 450	ASTM D412
<i>Curing characteristics of rubber compound</i> <i>Rheometer MDR 2000, measurement conditions: 160 °C, deformation of 0.5°, MH at 30 min</i>		
Minimum torque (ML), dNm	0,8-1,8	ASTM D 5289
Maximum torque (MH), dNm	13,6-18,4	ASTM D 5289
Scorching time (ts1), min	1,6-3,8	ASTM D 5289
Time to 50% of full cure (t 50), min	4,1-7,5	ASTM D 5289
Time to 90% of full cure (t 90), min	15,2-22,8	ASTM D 5289

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