

# SBR-1712 HI-AR

## Synthetic styrene-butadiene rubber

Oil-extended styrene butadiene synthetic rubber SBR-1712 HI-AR is a styrene (23.5%) and butadiene (76.5%) copolymer obtained by emulsification method with the usage of resin/fatty soaps. The copolymer is filled with a high aromatic oil and stabilized with staining antioxidant.

**Appearance:** bale of dark-brown color; weight of a bale —  $30 \pm 1$  kg

**Package:** PE wrapping film (Vicat softening point  $\leq 95$  °C); metal or plywood containers (1,26 MT)

**Shelf life:** 2 (two) years from the date of manufacture  
**Storage conditions:** at the temperature not higher than 30 °C, in place protected from direct sunlight and atmospheric precipitation

Parameters	SBR-1712 HI-AR grade B	Test method
Mooney viscosity MML <sub>1+4</sub> (100 °C), UM	46–54	ASTM D 1646
Organic acids, % wt	4,0–5,6	ASTM D 5774
Organic acids soap, % wt	$\leq 0,30$	ASTM D 5774
Bound styrene, % wt	22,0–25,0	ASTM D 5775
Solvent extract, % wt	29–35	ASTM D 5774
Oil, % wt	25,0–30,0	ASTM D 5774
Volatile matter, % wt	$\leq 0,6$	ASTM D 5668
Ash, % wt	$\leq 0,6$	ASTM D 5667

### Stress-strain properties in standard recipe on ASTM D 3185 (method 1A), 145 °C x 35 min.

Tensile stress at 300% elongation, MPa	$\geq 9,8$	
Tensile strength, MPa	$\geq 18,0$	ASTM D 412
Ultimate elongation, %	$\geq 380$	

### Curing characteristics of rubber compound: Rheometer MDR 2000, measurement conditions: 160 °C, deformation of 0.5°, MH at 30 min.

Minimum torque (ML), dNm	1,4–3,0	
Maximum torque (MH), dNm	12,0–18,5	
Scorch time (ts'1), min.	3,2–6,5	ASTM D 5289
Time to 50 % of full cure (t'50), min.	6,5–10,5	
Time to 90 % of full cure (t'90), min.	12,0–18,5	

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