

Technical Data Sheet

Ttype of mixture	HNBR 70 ShA
Name	HNBR 70 ShA HTN 71 - 470109005
Color	Black
Basic polimer	Hydrogenated Nitrile Butadiene Rubber

Mechanical properties	Unit	Test method	Required values
Harndess	ShA	ISO 7619-1	70 ± 5
Density	g/cm ³	ISO 1183-1	1,18 ± 0,03
Tensile strenght	MPa	ISO 37	≥ 10
Elongation at brake	%	ISO 37	≥ 200
Compression set (after 72h at at air; 35% compression) -	%	ISO 815-1	≤ 45
Permanent deformation at -30°C	%	ISO 815-2:2014	< 70%
Temperature range	°C	-	od -30°C do +150°C

Impact on transformer oil	Unit	Test method	Required values
Colour	[-] Δ	ISO 2049:1996	Δ ≤ 1,0
Purity	[-]	IEC 60422:2013	clear
Neutralization number	mgKOH/gOil Δ	IEC 62021-2:2007	Δ ≤ 0.05 (mineral oil) Δ ≤ 0.10 (ester)
Dissipation factor at 90°C	[-] Δ	IEC 60247:2004	Δ ≤ 0.01 (mineral oil) Δ ≤ 0.10 (ester)
Surface tension (for mineral oils)	[-]	IEC 62961:2018	≥ 28 (for mineral oil)
Corrosive sulfur (DIN 51353)	[-]	DIN 51353	Non-corrosive
Potentially corrosive sulfur IEC 62535	[-]	IEC 62535	Non-corrosive

Test at high temperature at air	Unit	Test method	Required values
Δ Harndess (72h, 105°C, at air)	ShA	ISO 7619-1	-5 ≤ Δ ≤ 10
Δ Tensile strenght (after 72h, 105°C, at air)	%	ISO 37	-15 ≤ Δ ≤ 15
Δ Elongation at brake (after 72h, 105°C, at air)	%	ISO 37	Δ ≥ -20
Compression set(after 72h, 105°C, at air ; 35% compression)	%	ISO 815-1	≤ 50

High temperature test in oil	Unit	Test method	Required values
Δ Harndess (change after 72h at 105°C, ester)	ShA	ISO 7619-1	-8 ≤ Δ ≤ 0
Δ Weight (change after 72h at 105°C, ester)	%	ISO 1817	0 ≤ Δ ≤ 10
Δ Volumen (change after 72h at 105°C, ester)	%	ISO 1817	0 ≤ Δ ≤ 15
Δ Tensile strenght (change after 72h at 105°C, oil)	%	ISO 37	-15 ≤ Δ ≤ 15
Δ Elongation at brake(after 72h at 105°C, oil)	%	ISO 37	≥ -25
Compression set (at elevated temperature after 72h at 105°C, ester ; 35% compress.)	%	ISO 815-1	≤ 50