



# HNBR Hydrogenate Butadiene Rubber

## Design Description

HNBR has improved abrasion resistance while still retains high elasticity. Its service temperature range is from  $-20^{\circ}\text{C}$  to  $150^{\circ}\text{C}$ . It also works for a short time in hot air up to  $180^{\circ}\text{C}$ .

it is resistant to non-polar and low-polar media (vegetable and animal fats) and in particular, mineral oils (lubricating oils, hydraulic oils or fuels), aliphatic hydrocarbons and HFA-, HFB-, HFC-liquids. It is also well-suited for the use in water, diluted inorganic acids and alkalis.

## Features

- Hydrogenated acrylonitrile butadiene rubber
- Suitable for applications involving aliphatic hydrocarbons such as fuel, propane, butane, mineral oils and greases
- May be used in diluted acids, alkalis and salt solutions

Properties	Specified	Unit	Value
Hardness	DIN 53505	Shore A	$87 \pm 3$
Density	DIN 53479	$\text{g}/\text{cm}^3$	1.23
Tensile strength	DIN 53504	MPa	20
Elongation at break	DIN 53504	%	300
Stress ratio 100%	DIN 53504	$\text{N}/\text{mm}^2$	12.5
Compression set			
70h/100°C	ASTM D 395B	%	21
Tear strength	DIN 53507	$\text{N}/\text{mm}$	33
Abrasion	DIN 53516	$\text{mm}^2$	110
Min. application temp		$^{\circ}\text{C}$	-20
Max application temp		$^{\circ}\text{C}$	150
Immersion in ASTM oil #3 oil acc to DIN 53521 70h 100°C			
Shore hardness change	DIN 53505	Shore A	5
Volume change	DIN 53521	%	15
Tensile strength change			-10
Elongation change			$\pm 25$
Immersion in Air 168h 150°C			
Shore hardness change	DIN 53505	Shore A	5
Volume change	DIN 53521	%	0
Immersion in Water 70h 100°C			
Shore hardness change	DIN 53505	Shore A	0
Volume change	DIN 53521	%	2.5