

material specification

s-mart HNBR 90A black

(hydrogenated acrylonitrile butadiene rubber, 90 shore A)

property	condition	unit	value	standard
color			● black	
hardness	23° C	Shore A	90 ± 5	ISO 868
modulus 100 %	23° C	MPa	6	DIN 53 504
tensile strength	23° C	MPa	9	DIN 53 504
elongation at break	23° C	%	220	DIN 53 504
tear strength	23° C	kN/m	20	DIN ISO 34-1 Methode B
spec. gravity	23° C	g/cm ³	1,32	ISO 1183
rebound elasticity	23° C	%	30	DIN 53 512
abrasion	23° C	mm ³	130	DIN 53 516
compression set	*	%	26	ISO 815
compression set	**	%	32	ISO 815
compression set	***	%		ISO 815
minimum service temperature		°C	-20	
maximum service temperature		°C	150	
temp maximum water steam		°C	120	
temp maximum hot air		°C	180 short	
* 24h 70°C 25% deflection ** 24h 100°C 25% deflection *** 24h 150°C 25% deflection				

the mentioned data are only valid for test pieces of the corresponding ISO, DIN and ASTM standards and cannot be directly related to gaskets and joints. the values which are marked with the symbols greater than (\geq) and smaller than (\leq) are nominal values and must be fulfilled of each batch. all values which are not marked are typical values which are only tested on selected samples.

copolymer, based on butadiene and acrylonitrile
 resistant to: oil, petrol, hot water, hot air, ozone, crude oil
 not resistant to: conc. acids, conc. lyes, polare solvents
 turnability: good
 tool-abrasion: medium