

Material Properties

Carboxylated Nitrile (XNBR 70D)

Material code: 130

Carboxylated Nitrile (XNBR) is Nitrile with a carboxyl group added to the formulation. It has many advantages such as better tensile properties, better performance in continuous high service temperatures, good resistant to harsh environmental conditions, wide application range in technical artifacts.

Physical Properties	ASTM Method	Typical Values
Specific Gravity	D297	1.35 gr/cm 3
Water Absorption (24 hrs. @ 74°F)	D570	0.01 %
Color	N/A	Black
Mechanical Properties		
Tensile Strength	D412	1750 psi
Elongation	D412	
• At 1001 psi		100%
• At break		368%
Compression Set	D395	
• 24 hrs. at 212°F		19%
Hardness	Shore A	70
Aging Resistance		
Heat Resistance (72 hrs. at 212°F)	D573	
Hardness change	Shore A	+6
Tensile Strength change		+12.7%
Elongation Change		-25.3%
ASTM #3 Oil Resistance (70 hrs. at 302°F)		
Hardness Change	Shore A	0
Tensile Strength Change		+7%
Elongation Change		-26%
Volume Change		+5%
Thermal Properties		
Brittle Point Temperature	D764	-51°F
Glass Transition Temperature (Tg)	D3418	32°F
Continuous Service Temperature		230°F

Note: Property values should be interpreted as typical rather than minimum value. All technical information and recommendations are presented in good faith, and based upon laboratory and real-world tests believe to be reliable and practical. However, K.C. Seals, Inc. cannot guarantee the accuracy or completeness of this information, and it is the customers' responsibility to determine product suitability to any given application.

