

Nitrile - NBR is a popular elastomer that is used in a wide range of mechanical applications.

This versatile rubber material, owing to its several superior features and properties, is widely used in a number of applications across industries.
Variants: Carboxylated Nitrile - XNBR, Hydrogenated Nitrile - HNBR, PVC/Nitrile blends

Name	Abbreviation	Physical & Mechanical Properties	Chemical Resistance
Nitrile or Buna N	NBR	Durometer or Hardness Range 20 – 95 Shore A	Oil and Grease Excellent
		Abrasion Resistance Good to Excellent	Acids Poor to Good
		Tear Resistance Good to Excellent	Alcohols Poor
		Compression Set Good to Excellent	
		Resilience / Rebound Good	
		Adhesion to Metal Excellent	
		Maximum temperature for Continuous Use (Static) 200 F	

EPDM elastomers have excellent heat, ozone/weathering, and aging resistance.

They also exhibit excellent electrical insulation, compression set, and low temperature properties, but only fair physical strength properties. Their resistance to chemicals is generally good.

Variants: EPDM/Silicone blends, EPDM/Teflon blends

Name	Abbreviation	Physical & Mechanical Properties	Chemical Resistance
EPDM or Ethylene Propylene	EPDM EP, EPR, EPT	Durometer or Hardness Range 30 – 95 Shore A	Oil and Grease Poor
		Abrasion Resistance Good	Acids Fair to Excellent
		Tear Resistance Fair to Good	Alcohols Good to Excellent
		Compression Set Poor to Excellent	
		Resilience / Rebound Fair to Good	
		Adhesion to Metal Good to Excellent	
		Maximum temperature for Continuous Use (Static) 250 F	

CSM rubber has excellent resistance to oxygen, ozone and most chemicals, water.

CSM is often used in applications with sulfuric acid or nitric acid due to its excellent acid resistance. It has poor fuel resistance.

Name	Abbreviation	Physical & Mechanical Properties	Chemical Resistance
CSM Chlorosulfonated Polyethylene Rubber	CSM	Durometer or Hardness Range 45 – 95 Shore A	Oil and Grease Poor
		Abrasion Resistance Good to Excellent	Acids Good to Excellent
		Tear Resistance Fair to Good	Alcohols Excellent
		Compression Set Poor to Excellent	
		Resilience / Rebound Fair to Good	
		Adhesion to Metal Good to Excellent	
		Maximum temperature for Continuous Use (Static) 250 F	

Silicone rubber is a high-performance elastomer characterized by an unusual combination of properties.

These properties range from high temperature performance to durability, excellent electrical insulation properties as well as its transparency. They are thus used in nearly every industry to improve the quality and functionality of products.

Standard Silicone is rather sensitive to pressure and its abrasion resistance is poor.

Variants: USDA Dairy compliant, high-strength Silicone - improved physical properties, blended with rubbers

Name	Abbreviation	Physical & Mechanical Properties	Chemical Resistance
Silicone, Silicone rubber	VMQ, PMQ, PVMQ	Durometer or Hardness Range 20 - 90 Shore A	Oil and Grease Fair
		Abrasion Resistance Poor to Good	Acids Fair to Good
		Tear Resistance Poor to Good	Alcohols Excellent
		Compression Set Good to Excellent	
		Resilience / Rebound Good to Excellent	
		Adhesion to Metal Good	
		Maximum temperature for Continuous Use (Static) 550 F	