



The characteristics of rubber compounds

	Natural rubber	SBR	EPDM	Neoprene CR	Nitrile NBR	Acrylic ACM	AEM	IIR	Silicone VMQ	HNBR	FKM / FPM	Fluoro-silicone FVMQ
Hardness Sha A ASTM D 2240	30-95°	40-95°	25-90°	30-90°	40-100°	50-85°	45-90°	40-90°	40-90°	50-95°	40-95°	40-80°
Tensile strength ASTM D 412 C	15 - 30 Mpa	6 - 20 Mpa	7 - 20 Mpa	12 - 20 Mpa	5 - 16 Mpa	10 - 15 Mpa	8 - 15 Mpa	8 - 15 Mpa	5 - 10 Mpa	14 - 20 Mpa	6 - 14 Mpa	7 - 10 Mpa
Elongation strength ASTM D 412 C	400 - 600 %	200 - 700 %	300 - 700 %	300 - 800 %	250 - 700 %	300 - 400 %	350 - 500 %	200 - 400 %	200 - 600 %	300 - 500 %	200 - 450 %	200 - 400 %
Color	Full Range	Full Range	Limited Range	Full Range	Limited Range	Black	Limited Range	Limited Range	Full Range	Limited Range	Limited Range	Limited Range
HEAT RESISTANCE (°C)												
Maximum Continuous		85°C	130°C	95°C	100°C	150°C	150°C	100°C	205°C	125°C	205°C	180°C
Maximum Intermittent	105°C	115°C	150°C	125°C	130°C	180°C	180°C	140°C	300°C	160°C	300°C	200°C
LOW TEMPERATURE	-60°C	-55°C	-50°C	-40°C	-20°C	-20°C	-40°C	-30°C	-60°C	-30°C	-20°C	-60°C
RESISTANCES Oxidation	Fair	Fair	Excellent	Very Good	Good	Excellent	Excellent	Good	Excellent	Excellent	Outstanding	Excellent
RESISTANCES Ozone & Weathering	Poor	Poor	Outstanding	Very Good	Fair	Excellent	Excellent	Good	Outstanding	Very Good	Outstanding	Outstanding
OIL RESISTANCE *ASTME Oil No.1 @ 20°C	Poor	Poor	Fair	Excellent	Excellent	100°C Excellent	100°C Excellent	Fair	Excellent	Excellent	Excellent	Excellent
OIL RESISTANCE *ASTME Oil No.1 @ 100°C	Unsatisfactory	Unsatisfactory	Unsatisfactory	Good	Good	<150°C Good	<125°C Excellent	Fair	Good	Fair	<150°C Excellent	<150°C Excellent
OIL RESISTANCE *ASTME Oil No.3 @ 20°C	Unsatisfactory	Unsatisfactory	Unsatisfactory	Good	Excellent	Excellent 100°C Good	Excellent 100°C Fair	Fair	Good	Fair	Excellent	Excellent
OIL RESISTANCE *ASTME Oil No.3 @ 100°C	Unsatisfactory	Unsatisfactory	Unsatisfactory	Fair	Good	150°C Fair	150°C Poor	Fair	Fair	Fair	150°C Excellent	150°C Excellent
FUEL RESISTANCE ASTM Fuel B @ 40°C	Unsatisfactory	Unsatisfactory	Unsatisfactory	Poor	Fair	Poor	Unsuitable	Low	Unsuitable	-	Excellent	Fair good at low temp)
SOLVENT RESISTANCE (20°C) Alcohol	Good	Good	Good	Good	Good	Good	Fair	Low	Good	Excellent	Good	Good
SOLVENT RESISTANCE (20°C) Acetone	Fair	Fair	Good	Fair	Unsatisfactory	Unsatisfactory	Fair	Low	Fair	Good	Unsuitable	Unsuitable
SOLVENT RESISTANCE (20°C) Benzene	Unsatisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory	Unsatisfactory	Fair	Good	Good

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CHEMICAL RESISTANCE Acids	Fair	Fair	Good	Good	Good	Poor	Fair	Good	Fair	Good	Excellent	Good
CHEMICAL RESISTANCE Bases	Good	Good	Fair	Fair	Fair	Poor	Good	Fair	Fair	Good	Good	Fair
PHYSICAL STRENGTH	Excellent	Good	Good	Good	Good	Good	Good	Good	Poor	Good	Good	Poor
COMPRESSION SET	Good	Good	Fair to Good	Fair to Good	Good	Good	Fair	Low	Good	Good	Good	Good
TEAR & ABRASION RESISTANCE	Excellent	Good	Good	Good	Good	Good	Good	Good	Poor	Very Good	Good	Poor
RESILIENCE	Excellent	Good	Very Good	Very Good	Good	Poor	Fair	Good	Good	Fair	Fair	Fair
PERMEABILITY TO GASES	Poor	Fairly Low	Low	Low	Low	Low	Very Low	Low	Fairly Low	Good	Very Low	Fairly Low
ELECTRICAL STRENGTH	Excellent	Excellent	Good	Good	Poor	Fair	Good	Good	Excellent	Poor	Good	Excellent
FLAME RESISTANCE	Poor	Poor	Self-Extinguishing	Self-Extinguishing	Poor	Poor	Fair	Low	Good	Poor	Self-Extinguishing	Self-Extinguishing
WATER RESISTANCE	Very Good	Good	Good	Good	Good	Poor	Good	Excellent	Good	Very Good	Good	Good