# **Rubber Technology**



## **Applications:**

- Silicone grommet for electrical wires.
- EPDM bellow seal for automotive.
- Fluorosilicone o-ring seal for automotive.
- EPDM extruded tube.



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### **Advantages**

- Fluorosilicone Rubber
  - Excellent resistance to chemicals, solvents, lubricants, water, weather and ozone.
  - Hardness 40 to 80 shore A.
  - Temperature range -75 F to 400 F.

### **EPDM Rubber**

- Good resistance to aging, ozone, polar liquids, sunlight exposure and chemicals.
- Light weight and good electrical properties.
- Excellent tear resistance and withstands temperatures of up to 150C while remaining flexible.
- Good resistance to compression set, dilute acids, ketones and alkalis.

### Nitrile (NBR)

- Excellent resistance to petroleum based oils, fuels, water, alcohols, silicone greases and hydraulic fluids.

Other rubber materials available.

#### **Rubber Materials:**

Rubber Type	Main Features	Typical Use	Rubber Type	Main Features	Typical Use
Natural Rubber	High resilience and good wear resistance.	Vehicle ties, rubber shoes, hoses, tapes, air springs and other industrial products.	Silastic	Good heat resistance, cold resistance and oil resistance, can be used for light-colored products with a	Shaft seals, gaskets, oil seals, industrial rubber rollers, shock-absorbing rubber, insulation products, medical products, putty, potting
lsoprene Rubber	It has almost the same properties as natural rubber and is relatively stable.	Vehicle and aircraft tires can be used instead of natural rubber.		certain purity.	materials
Styrene- Butadiene Rubber	Heat resistance up to 100°C	Tires, rubber shoes, adhesive tape, sporting goods, battery shells, tapes and other industrial supplies.	Fluoro- elastomer	Optimum heat and chemical resistance.	and missiles, shaft seals that are resistant to oil and chemicals, corrosion-resistant shaft seals for chemical plants, diaphragms, tank linings, hoses, pumps, etc.
Cis Butadiene	Good low temperature resistance and wear resistance.	Automobile and aircraft tires, rubber shoes, shock- absorbing rubber, rubber rollers, tapes, hoses, plastic modifiers, etc.	Polyurethane rubber	Good oil resistance, especially good mechanical properties.	Industrial rubber rollers, solid tires, adhesive tapes, high- pressure shaft seals, couplings.
Neoprene	Good heat resistance, ozone resistance, heat resistance up to 100 °C.	Wire sheath, conveyor belt shock-absorbing rubber, door and window inserts, adhesives, adhesives.	Polysulfide rubber.	Excellent oil resistance, electrical properties and ozone resistance	Highly oil-resistant hoses, shaft seals, rollers, putty, adhesives, etc
Butyl Rubber	Good weather resistance, ozone	Inner tubes, vulcanized capsules, roofing materials, wire sheaths. door and	Polyacrylate rubber	Good oil resistance at high temperature (180°C)	Shaft seals and seals for automobile transmission and crank.
	resistance, air tightness, polar solvent resistance.	window inserts, steam hoses, heat-resistant conveyor belts, etc.	Chlorosulfonated polyethylene.	Good aging resistance, ozone resistance, weather resistance, chemical resistance and abrasion resistance.	Weather resistance, corrosion resistant coatings, tank linings, outdoor adhesive tape, corrosion resistant shaft seals, heat resistance, corrosion resistant rubber rollers.
Nitrile Rubber	Good oil resistance (120°C), wear resistance and aging resistance.	Oil seals, pads, oil-resistant hoses, printing rollers, textile rollers and other oil-resistant products.			
EPDM Rubber	Good aging resistance, ozone resistance, polar liquid resistance	Wire sheaths, car wind shields, door and window	Chloroether rubber.	Good air tightness, weather resistance, low temperature resistance and oil resistance.	Gaskets, refrigerator seals, gas regulators, pump and valve components
	lightest rubber, good electrical properties.	conveyor belts, etc.	Methyl phenyl	Small compression set, low temperature	Aerospace industry seals,
Silastic	Good heat resistance, cold resistance and oil resistance, can be used for light- colored products with a certain purity.	Shaft seals, gaskets, oil seals, industrial rubber rollers, shock-absorbing rubber, insulation products, medical products, putty, potting materials.	rubber	resistance and radiation resistance.	gaskets, tubes and rous, etc.
			Benzene silicone rubber	Radiation resistance	Aerospace industry, atomic energy industry and nuclear reactors.
Dimethyl silicone rubber	Excellent electrical insulation properties as well as moisture, shock and physiological inertness	Electromechanical, aviation, automotive and medical industries.	Ethyl silicone rubber	Cold resistance	Use at low temperatures
			Silicone nitrogen rubber	Excellent thermal stability	Low temperature use (no decomposition at 480°C).
Methyl vinyl silicone rubber.	Small compression set, good stability and excellent cold resistance.	In the aviation industry, it is widely used as gaskets, sealing materials and fragile, shockproof parts, electrical industry, and medicine.	contac hr	t@hmisolutionsinc.cor nisolutionsinc.com	n HMI SOLUTIONS, INC. Biobal Manufacauring