

**Ethylene Propylene Diene Rubber (EPDM)** is an unsaturated version of ethylene and propylene plus a non-conjugated Diene as a third monomer. This terpolymer has high tensile strength and elongation with excellent resistance to oxygen and ozone. It also has the potential of good flexing characteristics, low compression set, good heat resistance and electrical properties. It is a low cost, versatile compound that functions well in both low and high operating temperature environments. Moderate to good resistance to a variety of chemicals make it the compound of choice for a variety of applications. EPDM's chemically saturated polymer chain accounts for its superior resistance to degradation. Reinforcing agents are especially important in Ethylene-Propylene polymers because it lacks gum strength. Therefore, high tensile and tear properties are achieved through high loading. EPDM is a terpolymer, not to be confused with the copolymer EPM, which can only be peroxide cured, due to its completely saturated polymer backbone.

**Limitations:** Incompatible with petroleum based fluids. Is generally attacked by mineral oils, solvents, and aromatic hydrocarbons. Not recommended as an electrical insulator.

**Temperature Resistance:** -54°C to 150°C (-65° to 300°F)

**Typical Uses:** Door Seals, Automobile Profiles, Gaskets, O-Rings,

**Physical Properties:**

	Excellent	Good	Fair	Poor
Tensile strength		•		
Elongation		•		
Low temperature flexibility	•			
Compression Set		•		
Tear resistance			•	
Abrasion resistance		•		
Flame resistance		•		
Gas permeability	•			

**Chemical Resistance:**

	Excellent	Good	Fair	Poor
Ozone	•			
Weather	•			
Water	•			
Steam	•			
Dilute acids	•			
Dilute alkalis	•			
Oxygenated solvents		•		
Hydraulic fluids		•		
Alcohols		•		
Gasoline				•
Petroleum oils and greases				•