

## E.P.D.M.

Excellent resistance to ozone and oxygen. The EPDM rubber based products are immune to oxidizing agents in both static and dynamic conditions, without adding antioxidant and antiozone agents.

Excellent resistance to degradation caused by the atmosphere.

Good resistance to high temperature (up to 150 °C) both in dry and damp rooms (preserved mixtures).

Good resistance to low temperature: the flexibility maintains down to -55 °C.

Excellent dielectric properties.

Very good hardness to permanent deformations.

Very good mechanical and elastic characteristics and preservation of this property.

Good resistance to various chemical materials (organic and inorganic acids, alkali, amines, phosphoric esters, hydraulic liquids, antifreeze liquids, pickles, bleaching agents, biodegradable and un biodegradable

detergents, vegetal oils and fats) and polar solvents with short molecular weight (alkali, eters, ketones, glycols). The resistance to the hydrocarbon solvents and to mineral oils is low.

Low resistance to the propagation of a fuel if their formula is not right.

Very high impermeability to water.

Resistance to the chemical agents of vulcanized based EPDM	
Chemical agents	EPDM
Inorganic and organic acids	G - E
Inorganic bases	G - E
Oxone	E
Oxigen	E
Water steam	E
Water	E
Oxidant agents (H <sub>2</sub> O <sub>2</sub> , HClO, Sodium perborate agents )	E
Synthetic detergents	E
Vegetal fats and oils	G
Mineral olis	L
Aliphatic solvents	L
Aromatic solvents	L
Chlorinated solvents	L
Solvents rich in oxygen (alcohols??i, ketones )	G

G = GOOD - E = EXCELLENT - L = LOW

Principal characteristics of the EPDM elastomers			
Properties	Measures	EPDM	Rules used for the measure
Specific weight	g/cm <sup>2</sup>	0,865	ASTM D 792-66
Tensile stress	Kg/cm <sup>2</sup>	50-220	ASTM D 412-66
Elongation to breakage	%	150-700	ASTM D 412-66
Compression set			ASTM D 395-67/B
22 hours at 70 °C	%	1-15	ASTM D 412-66
70 hours at 100 °C	%	14-70	ASTM D 464-54
Tear strength	Kg/cm	25-60	ASTM D 464-54
Hardness Shore A	points	30-90	ASTM D 676
Elastic efficiency	%	15-60	BS 903 part A8
Resistance to flame	-	RSF	ASTM D 470-67T
Electric propreties	-	E	ASTM D 150-65T
Abrasion resistance	cm <sup>3</sup> /1000 cycle	G	BS 903 part A9 (1967)
Water absorption	mg/cm <sup>2</sup>	Low	ASTM D 470-67T

