Brief description of the materials

Acryl rubber
(ASM)

Distinctive properties of the acrylate rubber is its excellent resistance to high temperatures and hot oils. ASM is resistant to motor oils with advanced additive packages, gear oils, greases, etc. To this are added and high oxidation and ozone resistance. The temperature range is from - 40º C to + 200ºC

Acryl nitrile – butadiene rubber (NBR)

First NBR rubber is resistant to the effects of oils, particularly hydraulic oils, greases, gasoline, and other aliphatic hydrocarbons, acids and lyes. Good physical parameters, such as high pressure resistance, hardness and temperature (- 25 ºC to + 120 ºC) of this rubber provides a wide range of applications.

Aflas (TFE/P)

The Aflas is a special rubber and belongs to the new generations of fluorinateh, elastomers. O-rings aflas shows very good resistance to many chemicals and specific environments, hot water, steam, acids, lye, ammonia, bleach, acids (H_2S) gas and oil, especially with amine-containing additives and corrosion inhibitors doped motor oils and gear oils, brake fluids and oxidizing environments. Temperatures of application are similar to those of fluorinated elastomers (- 20º C to + 120ºC)

Butyl rubber (IIR)

Seals made of this material are with very low permeability, high resistance to impact the ability of oxygen and ozone, good electrical properties and stability above average compared to animal and vegetable oils and fats. Not suitable for use of mineral oils. Temperature range from - 40º C to + 140ºC

Chloroprene rubber (CR)

Chemical and physical properties of rubber CR are similar to those of NBR. Resistance to mineral oils is slightly weaker. Resistance to aging from ozone, acids and bases, however, is excellent. Temperature range is from - 40º C to + 120ºC

Chlorosulphonated polyetilen (CSM)

Sectors of CSM shows excellent resistance to ozone, high impact resistance to acids and lyes, aging resistance, good mechanical and physical properties. Mineral oil scan cause swelling, the amount used depends on the temperature and type of the hydrocarbon link. The temperature range is from - 25º C to + 135ºC

Ethylene-propylene dyen rubber (EPDM)
This rubber is used where required high resistance used to seal hot water and steam. Resistance at low temperatures compared to the usual types of synthetic rubber can be described as good. Behavior compared to oils, greases and solvents corresponds approximately to that of butadiene styrol rubber. Resistance to chemicals and agents against axidative action is very good. The temperature range if from - 40º C to + 140ºC

Fluorene (FPM)
Exceptional resistance to impact of mineral oils, aliphatic and aromatic hydrocarbons and hydrocarbons containing chlorine, concentrated and dilute acids, weak bases. Excellent resistance to high temperatures - up to + 200 º C - and temperatures - up to- 30 º C - depending on the type, very good mechanical properties and outstanding resistance to aging rubber FPM placed beyond traditional synthetic rubbers.

Fluor silicone rubber (FVMQ)
Along with the typical characteristics of the normal silicone rubber, the Fluor silicone rubber shows significantly improved resistance to oils, fuels and solvents. This applies primarily to aromatic and chlorinated hydrocarbons and alcohols. Their fields of application are determined by the requirments of the sustainability in a wide temperature range from - 60º C to + 200ºC, with simultaneous action of aggressive environments, such as gasoline, alcohol blends, aromatic oils and a range of chlorinated solvents.

Natural rubber (NR)
The natural rubber is highly plastic material with excellent physical properties. Despite the variety of the different types of rubber synthetics with their special features, natural rubber has found considerable application. The temperature range if from - 40º C to + 100ºC

Polytetrafluoroethylene (PTFE)
Universal resistance with the exception of liquid alkali metals and fluorine gas pressure. Good slip properties, low wear resistance of the temperature - 200 º C to +260 º C. Since PTFE has a hardness of about 95 º Shore, recommended the incorporation of O-rings in separate grooves.

Polyurethane rubber (AU)
Manufactured of polyurethane rubber seals are distinguished by particularly high profit ability. Polyurethane O-rings have a high mechanical characteristics such as resistance to wear and tear, very good elasticity in bouncing, high gas resistance. Resistance to fuels and widely used technique in oils, especially those with a high content of aromatic rings, is remarkable. The polyurethane seals have long lives because of its good thermal stability (up to + 125 º C) and its good flexibility (up to - 30 º C), and excellent resistance to oxygen and ozone.

Silicone rubber

Scope of this rubber is determined by its superior thermal resistance (- 55º C to + 200ºC), although these indicators are not valid for application in hot water or steam. Although silicone rubber oil resistance reaches approximately that of the NBR, can not reach his best physical and mechanical properties though.

Viton Extreme ® (FPM)

Chemical resistance of Viton Extreme surpasses even that of fluorine rubber Viton. Swelling in solvents and strong basic environments is significantly reduced by modifying the polymer structure, resistance to high temperatures and flexibility at low temperatures are maintained and are in the range of - 15 º C to + 200 º C. This material is used wherever the environment is composed of particularly aggressive chemicals and requires significant indicators of endurance.