

A very important component of a seal is the elastomer type. GBSA can specially compound elastomers for specific sealing requirements. Below we provide general properties and fluid compatibilities.

ELASTOMER TYPE	HARDNESS SHORE A	GENERAL PROPERTIES
NITRILE Acrylonitrile Butadiene NBR	35 to 95	Low, medium and high nitriles are available based on increasing acrylonitrile content which significantly affects low temperature and fluid swell properties. Nitrile compounds can exhibit very good tear and abrasion resistance and excellent compression set. Unless specifically compounded, they do not have a good resistance to ozone, sunlight or weather.
THERBAN Hydrogenated Acrylonitrile Butadiene HNBR	55 to 75	This material is a hydrogenated acrylonitrile butadiene and unlike standard nitriles it exhibits resistance to the ozone and other atmospheric conditions. Therban also exhibits a very good resistance to heat and aging in the 300°F range and refrigeration. All other properties are NBR.
FLUOROCARBON Fluorinated Hydrocarbon FPM	55 to 93	This polymer exhibits very good resistance to petroleum products, low compression set and high temperature resistance.
NEOPRENE Chloroprene CR	40 to 70	Compounds from neoprene exhibit good ozone and weather resistance. Due to the excellent resistance to refrigerants such as Freon, these compounds are used in refrigeration systems.
ETHYLENE PROPYLENE EPDM EPM	35 TO 85 30 TO 80	Compounds of this material exhibit excellent resistance to automotive brake fluids and steam as well as ozone, sunlight and weather.
SILICONE VMQ		Silicone compounds are noted for their excellent heat resistance and exhibit the best over all temperature range of all available elastomers. Not recommended for dynamic applications.
FLUOROSILICONE FMQ	35 TO 80	This polymer is used in aerospace and automotive applications for fuel systems. It substitutes FPM where low temperature resistance is required.
POLYACRYLATE ACM	60 TO 80	Due to the excellent resistance to automotive transmission fluid, oil, flex, and oxidation cracking, this material is used in power steering and transmission applications.

GBSA molded rubber parts are available in every conceivable configuration to fit your exact application. We have the ability to mold in odd shapes and exotic materials or colors. Rubber to metal bonding is no problem.

We can supply either short or long runs and tooling costs are surprisingly low. Our deliveries are among the fastest in the industry for custom parts, going from concept to delivery in as little as 4 weeks. Our selection of materials is vast to allow our parts to give you the optimum performance in your particular application.

