

GEM-SOL Elastomer materials

General information

GEM-SOL solenoid valves can be used for many fluid types including acids, gases, solvents etc. To ensure appropriate functioning of the valve, particular care must be taken with the selection of the valve and seals materials. The information below summarizes the elastomers materials used for GEM-SOL valves.

Please contact our technical department for further information.

NBR or BUNA-N

- NBR is a copolymer of butadiene and acrylonitrile. It is the most used elastomer in the seals industry and is the standard elastomer for GEM-SOL valves.
- NBR is suitable for use from -20°C to 85°C. It has benefits over other elastomers with its compression set, tear and abrasion resistance.
- Air, cold water and inert gases are some of the materials NBR is recommended for.

EPDM - Ethylene Propylene Rubber

- EPDM is an elastomer made from ethylene and propylene monomers. It has a wider temperature range than NBR, -40°C to 149°C. Its main disadvantage is that it cannot be used with petroleum oils.
- Water, alcohol and acetone are some of the materials EPDM is recommended for.

Neoprene

- Neoprene is homopolymers of chloroprene. It has a temperature range of -20°C to 85°C. Neoprene is unusual because it is resistant to both oxygen and petroleum.
- Refrigerants, oxygen and petroleum oils are some of the materials Neoprene is recommended for.

FPM (Viton®)

- FPM (Viton®) is a very important elastomer due to its wide compatibility to chemicals. It has a temperature range of -20°C to 180°C. This gives FPM (Viton®) a significant advantage over NBR, but it is still not the ultimate elastomer.
- Diesel oil, gasoline, some acids and trichlorethylene are some of the materials FPM (Viton®) is recommended for.