

Elastomer Characteristics Pinch Valve Technical Information

Red Valve Pinch Valve Sleeves are constructed similarly to a heavy-duty truck tire. This cutaway of a Red Valve handcrafted Pinch Valve Sleeve illustrates the design: an elastomer inner tube, the only part of the valve in contact with the process; high strength nylon, polyester or Kevlar fabric; and an exterior Neoprene cover. These parts are vulcanized under pressure to form a pressure-containing sleeve that is the heart of a Pinch Valve. Red Valve Pinch Valve Sleeves offer value and cost-effectiveness with a long service life. Pinch Valve Sleeves are offered in the following elastomers.

Pure Gum Rubber

This is Red Valve's standard sleeve material for Pinch Valves. It has excellent resiliency, tensile strength and abrasion resistance. Pure Gum Rubber is generally good for most weak chemicals, wet or dry organic acids, alcohols and ketones.

Maximum operating temperature: -50°F to +180°F continuous service.

Neoprene

This elastomer is generally resistant to moderate chemicals, ozone, fats and many hydrocarbons.

Maximum operating temperature: -50°F to +230°F continuous service.

Also available in: White food-grade Neoprene.

Buna-N

Buna-N is resistant to many hydrocarbons, fats, oils, grease, kerosene and moderate chemicals.

Maximum operating temperature: -30°F to +230°F continuous service.

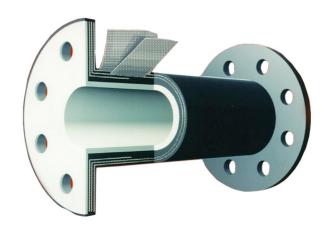
Also available in: White food-grade Buna-N.

Chlorobutyl

Generally resistant to animal and vegetable fats, oils, greases ozone, heat and strong oxidizing chemicals. Chlorobutyl has the lowest permeability of all the synthetic rubbers.

Maximum operating temperature: -50°F to $+250^{\circ}\text{F}$ continuous service, intermittent service to 300°F .

Also available in: White food-grade Chlorobutyl.



Hypalon®

Resistant to heat, ozone, weathering and oxidizing chemicals. It has good resistance to strong acids at room temperatures. **Maximum operating temperature:** -50°F to +230°F continuous service.

EPDM

Also known as Nordel, EPDM is recommended for good abrasion resistance at elevated temperatures. Good for steam, water, ketones and diluted acids. EPDM is unsatisfactory for use with petroleum and petroleum products.

Maximum operating temperature: $-50^{\circ}F$ to $+300^{\circ}F$ continuous service and surge temperatures of $+325^{\circ}F$.

Also available in: White food-grade EPDM.

Viton®

Viton® exhibits good resistance to most oils, chemicals, solvents, and halogenated hydrocarbons and an excellent resistance to ozone, oxygen and weathering. Viton is unsatisfactory for steam service.

Maximum operating temperature: -10°F to +400°F.

Also available in: White food-grade Viton®.

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