



Elastomer Characteristics

Check Valve Technical Information

Pure Gum Rubber (PGR)

Excellent resiliency, tensile strength, and abrasion resistance. Generally good for most weak chemicals, wet or dry organic acids, sodium hydroxide (caustic), alcohols and ketones.

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

Affected by: ozone, strong acids, fats, oils, greases, wet chlorine gas, methane and most hydrocarbons.

Neoprene

Generally resistant to moderate chemicals, ozone, fats, sodium hydroxide (caustic), methane and most hydrocarbons.

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

Affected by: strong oxidizing acids, acetic acid, ketones, wet chlorine gas, chlorinated and nitro-hydrocarbons, and aromatic hydrocarbons.

White Food Grade Neoprene

Generally resistant to moderate chemicals, ozone, fats, sodium hydroxide (caustic), methane and most hydrocarbons.

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

Affected by: strong oxidizing acids, acetic acid, ketones, wet chlorine gas, chlorinated and nitro-hydrocarbons, and aromatic hydrocarbons.

EPDM (Nordel)

Excellent abrasion and chemical resistance at elevated temperatures. Good with dilute acids (sulfuric and acetic), steam, ketones, sodium hydroxide (caustic), hydrogen sulfide and domestic wastewater. Good UV resistance. Also used with radioactive wastewaters. EPDM is unsatisfactory for use with petroleum and petroleum products.

Maximum operating temperature: -50°F to +300°F.

Affected by: petroleum oils, hydrochloric acid, concentrated methane, wet chlorine gas.

White Food Grade EPDM (Nordel)

Excellent abrasion and chemical resistance at elevated temperatures. Good with dilute acids (sulfuric and acetic), steam, ketones, sodium hydroxide (caustic), hydrogen sulfide and domestic wastewater. Good UV resistance. Also used with radioactive wastewaters. EPDM is unsatisfactory for use with petroleum and petroleum products.

Maximum operating temperature: -50°F to +300°F.

Affected by: petroleum oils, hydrochloric acid, concentrated methane, wet chlorine gas.

Buna-N

Resistant to many hydrocarbons, fats, oils, grease, kerosene, and moderate chemicals. Excellent with methane.

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

Affected by: ozone, strong acids, hydrogen sulfide and ketones.

White Food Grade Buna-N

Resistant to many hydrocarbons, fats, oils, grease, kerosene, and moderate chemicals. Excellent with methane.

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

Affected by: ozone, strong acids, hydrogen sulfide and ketones.

Hypalon®

Resistant to heat, ozone, weathering, sodium hydroxide (caustic), and oxidizing chemicals. Good resistance to strong acids at room temperature and methane. Resistant to some hydrocarbons, alcohols.

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

Affected by: aromatic ketones, acetyl compounds, benzene compounds, petroleum oils, wet chlorine gas.

Viton®

Resistant to many halogenated hydrocarbons, fats, oils, grease, sodium hydroxide (caustic), solvents and most chemicals. Excellent resistance to ozone, oxygen, methane, and weathering. Viton is unsatisfactory for steam service.

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

Affected by: ketones, esters, hydrogen sulfide, and anhydrous ammonia.

White Food Grade Viton®

Resistant to many halogenated hydrocarbons, fats, oils, grease, sodium hydroxide (caustic), solvents and most chemicals. Excellent resistance to ozone, oxygen, methane, and weathering.

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

Affected by: ketones, esters, hydrogen sulfide, and anhydrous ammonia.

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