## **Resilient Materials**

## **BUNA N, NBR OR NITRILE**

Common Name Buna N FDA Approved

NBR Nitrile

Chemical Name (Butadiene Acyonitrile Copolmer)

Color Black White FDA Food Grade Yes Yes Temperature Range 0-200 20-180

Buna N is a copolymer of butadience and acrylonitrile. It is a general-purpose polymer that has good resistance to oil, water, solvents and hydraulic fluids. It also displays excellent compression set properties, abrasion resistance and tear resistance. This material performs admirably in areas where fatty acids, oils, alcohols or glycerins are present. It is limited by its poor resistance to acetones, ketones, chlorinated hydrocarbons, ozone and by its mediocre heat resistance.

## EPDM, EPT, OR ETHYLENE-PROPYLENE

Common Name EPDM FDA Approved

EPT EPR

Chemical Name Ethylene Propylene Diene Monomer)

Color Black White
FDA Food Grade Yes Yes
Temperature Range -40-275 -40-250

EPDM is a compound of ethylene, propylene and usually a third monomer and is increasingly popular in many industrial services. It has a wide variety of uses, including applications requiring good chemical, weather, abrasion and heat resistance. EPDM is suitable for use in animal and Vegetable oils, ozone, oxidizing chemicals and low-pressure steam. It is also resistant to mild acids, alkalis, silicon oils, and ketones. It is limited by its poor performance in applications involving petroleum oils and solvents.

## VITON, FKM OR FLUOROCARBON

Common Name Viton

FPM

Fluoro-Elastomer

Chemical Name (Fluorocarbon Polymer)

Color Black FDA Food Grade Yes Temperature Range 0-325

Viton is a fluorocarbon elastomer that is compatible with a board range of chemicals. It is an excellent choice as a seat material for applications involving chemical at higher temperatures. Viton is suitable for and resistant to mineral acids, salt solutions, animal and vegetable oils, and performs extremely will in hydrocarbon services. It may be used on bleached paper lines. It is not suitable for use in hot water, steam and applications where ketones are present.