



HANNA RUBBER COMPANY

Types of Rubber

Neoprene

Neoprene, also known as polychloroprene, is a synthetic rubber created by the polymerization of chloroprene. It was first developed by DuPont in 1930 and has since become a popular material for a wide range of applications due to its unique technical properties.

Some of the key properties of Neoprene include the following, keeping in mind there are several grades based on polymer content and customer requirements.

Chemical Resistance: Neoprene exhibits excellent resistance to a variety of chemicals, including oils, solvents, alkalis, and acids. This makes it suitable for applications where exposure to harsh chemicals is expected, such as protective gloves or gaskets and seals.

Thermal Insulation: Neoprene has a low thermal conductivity, allowing it to effectively insulate against heat and cold.

Weather Resistance: Neoprene is highly resistant to weathering, ozone, and ultraviolet (UV) radiation. This property makes it a suitable material for outdoor applications, such as weather seals and automotive parts.

Elasticity and Flexibility: Neoprene has good elasticity and maintains its flexibility over a wide temperature range. This allows it to return to its original shape after being stretched or compressed, making it ideal for applications that require flexibility and resilience, such as seals and hoses.

Water Resistance: Neoprene is inherently hydrophobic, meaning it repels water. This property, combined with its thermal insulation capabilities, makes it a popular choice for wetsuits and other water sports gear.

Flame Resistance: Neoprene (depending on the compound) has a relatively low flammability and self-extinguishes when removed from a flame. This property makes it suitable for applications where flame resistance is essential, such as cable jacket (sheathing) and protective clothing.

Abrasion Resistance: Neoprene is resistant to wear and tear, making it suitable for applications where durability is important, such as protective gear, conveyor belts, and tires.

Cushioning: Neoprene has excellent shock absorption and vibration damping properties, which makes it useful in applications where cushioning and impact resistance are important.

Adhesion: Neoprene can be easily bonded to other materials, such as fabric, metal, or plastic, which makes it versatile for a wide range of applications.

These technical properties make Neoprene a popular choice for various industries, including automotive, marine, construction, and consumer goods. Neoprene can be produced in a wide durometer range from 10-80 Shore-A depending on the method of manufacture.

For more information, please contact Hanna Rubber Company.