Styrene Butadiene

Description: Styrene Butadiene is a family of copolymers that consists of styrene and butadiene. SBR was the elastomer substituted for Natural Rubber during World War II. The properties of the compound are similar to Natural Rubber.

Characteristics: Styrene Butadiene features excellent impact strength, very good tensile strength, abrasion resistance, resilience and flexibility at low temperature applications.

Typical Applications: Styrene butadiene is typically used to manufacture Cement Plugs, Liner Wipers and Flex Plugs. The main use for Styrene Butadiene today is in the manufacturing of automobile and truck tires, and conveyor belts.

Limitations: Styrene Butadiene is not recommended for exposure to petroleum oils, most hydrocarbons, strong acids, ozone and sunlight. This compound is seldom used in sealing applications.

ASTM Abbreviation: SBR
ASTM D-2000 Classification: AA, BA
Polymer Nomenclature: Styrene Butadiene

Physical Properties

Durometer Hardness Range: 40 – 90 (Shore A)
Tensile Strength (psi): 500 – 3000
Elongation @ Break (%): 450% – 600%

Thermal Properties

Low Temperature Range (°F): -60°F – -30°F
High Temperature Range (°F): 210°F – 250°F