Sponge Rubber

Sponge rubber gasket material is a type of compressible rubber material commonly used in sealing applications where flexibility and resilience are required. Here are some typical specifications for sponge rubber gasket material:

1. Material Composition:

- Sponge rubber gasket material is typically made from synthetic rubber compounds such as neoprene, EPDM (Ethylene Propylene Diene Monomer), silicone, or natural rubber.
- It may also contain additives such as fillers, reinforcing agents, and curing agents to enhance its properties.

2. Density:

- Sponge rubber gasket material has a cellular structure with voids or pores, which gives it a low density compared to solid rubber.
- Density can vary depending on the specific formulation and application requirements, but typically ranges from 0.3 g/cm^3 to 1.2 g/cm^3.

3. Compression Set:

- Compression set refers to the ability of the material to recover its original shape after compression.
- Sponge rubber gasket materials are designed to have low compression set, ensuring reliable sealing performance over time.

4. Compression Deflection:

- Compression deflection or compression hardness measures the force required to compress the material to a certain percentage of its original thickness.
- Sponge rubber gasket materials typically have a low compression deflection, allowing them to conform to irregular surfaces and provide effective sealing.

5. Tensile Strength:

- Tensile strength measures the maximum stress a material can withstand while being stretched or pulled before breaking.
- Sponge rubber gasket materials usually exhibit moderate to high tensile strength, depending on the specific rubber compound and reinforcement.

6. Temperature Resistance:

- Sponge rubber gasket materials are available in various grades with different temperature resistance properties.
- Common temperature ranges for sponge rubber gasket materials range from -40°C to 200°C (-40°F to 392°F), although specialized formulations can extend this range.

7. Chemical Resistance:

- Sponge rubber gasket materials may exhibit resistance to oils, fuels, water, acids, bases, and other chemicals depending on the specific rubber compound used.
- Compatibility with specific chemicals should be verified for each application.

8. Thickness and Dimensions:

- Sponge rubber gasket materials are available in various thicknesses and dimensions to suit different sealing requirements.
- Typical thicknesses range from a few millimeters to several centimeters, and custom sizes can be manufactured to meet specific needs.

9. Certification and Compliance:

- Depending on the application, sponge rubber gasket materials may need to meet certain industry standards and certifications such as ASTM, FDA (for food-grade applications), or specific automotive standards.

These specifications can vary depending on the manufacturer, grade, and intended application of the sponge rubber gasket material. It's essential to consult with the manufacturer or supplier to ensure that the chosen material meets the requirements of your specific sealing application.