



HANNA RUBBER COMPANY

Types of Rubber

Viton® (ASTM D2000 Designation HK)

Viton® is a brand name for a specific type of fluoroelastomer (FKM) material that is produced by Chemours, formerly a part of DuPont. It is a synthetic rubber that is known for its excellent resistance to chemicals, heat, and aging, making it suitable for a wide range of applications, particularly in harsh environments. Below are some of the key technical properties of Viton®:

Chemical Resistance: Viton® is highly resistant to a wide range of chemicals, such as oils, fuels, lubricants, acids, and solvents. This resistance is due to the high fluorine content in the polymer, which forms a protective barrier against chemical attack.

Temperature Resistance: Viton® offers excellent resistance to high temperatures, typically ranging from -20°C (-4°F) to 200°C (392°F) for continuous use, with some grades capable of withstanding even higher temperatures for short periods.

Aging and Ozone Resistance: Viton® is resistant to aging, weathering, and ozone exposure. The material maintains its flexibility and mechanical properties over time, even when exposed to harsh environmental conditions.

Mechanical Properties: Viton® offers good mechanical properties, such as tensile strength, elongation at break, and hardness. These properties can be tailored by adjusting the formulation and processing conditions to suit specific applications.

Low Gas Permeability: Viton® exhibits low gas permeability, making it a suitable material for sealing applications where low gas transmission is crucial, such as in the automotive and aerospace industries.

Flame Resistance: Some grades of Viton® offer flame resistance and low smoke generation, which can be important in certain applications.

Electrical Properties: Viton® exhibits good electrical insulating properties, which can be useful in applications where electrical isolation is required.

It is important to note that the specific properties of Viton® can vary depending on the grade and formulation used.

Viton® First Use In Commerce 1956-12-00, Filing Date March 11, 1958, Registration Date March 24, 1959. Current owner THE CHEMOURS COMPANY.

Different grades of Viton® are designed to meet specific application requirements, so it is crucial to choose the appropriate grade for the intended use.

Viton® Fluoroelastomers APA Grades: GLT-S, AL, A, GBL-S, B, GFLT-S, F, GF-S and ETP-S.

FKM is a family of fluorocarbon-based fluoroelastomer materials defined by ASTM International standard D1418, and ISO standard 1629. It is commonly called fluorine rubber or fluoro-rubber. FKM is an abbreviation of Fluorine Kautschuk Material. All FKMs contain vinylidene fluoride as a monomer. Originally developed by DuPont (under the brand name Viton®, now owned by Chemours), FKMs are today also produced by many companies, including: Daikin (Dai-El), 3M (Dyneon), Solvay S.A. (Tecnoflon), HaloPolymer (Elaftor), Gujarat Fluorochemicals (Fluonox), and several Chinese manufacturers.