PEMKO
ASSA ABLOY

ASSA ABLOY, the global leader in door opening solutions

PEMKO Materials Summary

EPDM – Ethylene-Propylene-Diene-Monomer

EPDM is a synthetic rubber and an elastomer that has the ability to perform in a wide range of applications. This material has outstanding resistance to abrasion, hydraulic fluids, alkalis, heat, ozone, and weather. It is also resistant to polar substances and steam. EPDM can be extruded in varying durometers. This material is not recommended in situations that involve significant gasoline or other fuel oil, kerosene, propane, or mineral oil.

Resilience	Very Good
Resistance to fatigue	Very Good
Resistance to weathering	Excellent
Service temperature range	-75° to +350° F.
Chemical resistance	Excellent
Solvent resistance	Excellent
Color availability	No technical limitations
Used for	Originally designed as a roofing material. Automotive applications, garden tools, hardware fasteners, insulation and other gasket-type applications.

Silicone Rubber

A family of high performance synthetic materials, part mineral and part organic, also known as polysilixane. In the manufacturing process, extrusions may be either solid or foamed with an integral protective skin. This material is capable of being formulated into a wide variety of compounds in varying hardnesses with inherent resistance to harsh environments. Silicone rubber is generally non-reactive, stable, and resistant to extreme environments and temperatures. This material has excellent resistance to sunlight, weather, ozone, oxidization, and water. It also has very good resistance to flame.

Resilience	Excellent
Resistance to fatigue	Excellent
Resistance to weathering	Excellent
Service temperature range	-76° to +446° F.
Chemical resistance	Excellent
Solvent resistance	Fair
Color availability	No technical limitations
Used for	High performance situations, especially those involving continuous exposure to extreme heat/ cold or frequent cleaning with disinfectants, etc.

PemkoPrene - Thermoplastic Elastomer (TPE) – Thermoplastic Rubber (TPR)

A common trade name for PemkoPrene is "SantoPrene". These are rubber-like materials that can be processed like conventional thermoplastics. This material possesses the same flexibility and durability common to natural rubber compounds. Because of its unique properties, the material offers excellent design freedom in the field of architectural door seals. Additionally, PEMKO has selected these materials because of their outstanding resistance to cleaning fluids and disinfectants as well as for their everyday resilience and low impedance to opening or closing requirements on door assemblies.

PemkoPrene - Thermoplastic Elastomer (TPE) – Thermoplastic Rubber (TPR) (Continued)

Resilience	Good
Resistance to fatigue	Good
Resistance to weathering	Excellent
Service temperature range	-22° to +122° F. Will withstand exposure to higher temperature for short periods of time.
Chemical resistance	Excellent
Solvent resistance	Excellent
Color availability	No technical limitations
Used for	General purpose gaskets. Weather stripping for windows and doors. Grips on tennis racquets, bicycles, baseball bats.

Neoprene

This material is included in a family of synthetic rubbers that are produced by polymerization of chloroprene. This material has good chemical stability and maintains flexibility over a wide range of temperatures. The material exhibits a good range of useful properties. Neoprene shows good resistance to sunlight, ozone, oxidization, and water. It has poor resistance to weather. This material exhibits resistance to moderate chemicals and acids, oils, and solvents, but is not recommended in situations where esters, ketones, and many hydrocarbons are present.

Resilience	Excellent
Resistance to fatigue	Good
Resistance to weathering	Excellent
Service temperature range	-22° to +302° F.
Chemical resistance	Good
Solvent resistance	Fair
Color availability	No technical limitations
Used for	Gaskets, hoses and corrosion-resistant coatings. Combat-related attire like gloves and face masks. Weather stripping fire doors.

Flexible PVC – Flexible Vinyl

Both "PVC" (Polyvinyl Chloride) and "Vinyl" are common industry terms for the same basic material.

Flexible PVC is a thermoplastic polymer material that is widely used in the construction industry largely because it is inexpensive and durable. In its standard polymer form, it is only moderately flexible and resultant, but with the addition of plasticizers these characteristics can become more prominent. Polyvinyl Chloride only has limited ultraviolet and weather resistance. The material has good chemical resistance to adhesives and most mild cleaning solutions.

Resilience	Poor
Resistance to fatigue	Fair
Resistance to weathering	Excellent when appropriately stabilized
Service temperature range	-4° to +122° F. Softens beyond 122° and loses all resilience
Chemical resistance	Good
Solvent resistance	Good
Color availability	No technical limitations
Used for	Sewage and drain pipes, electrical wire insulation, commercial signage, inflatable products.

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