

SANITARY GASKET TYPES

Sanitary gaskets are available in a variety of materials, each possessing unique performance characteristics, and should be selected based on the specific demands of the application in which they will be used. Please refer to the following sanitary gasket elastomer characteristics to assist with proper gasket selection.

Buna (Nitrile) gaskets are the most popular and economic, and are common in food and beverage applications. They have good resistance to oils and animal fats, and good resistance to moderately aggressive chemicals.

EPDM gaskets are also very popular, economic gaskets, and are common in food and beverage, pharmaceutical and cosmetic/personal care applications. They exhibit higher chemical and heat resistance than Buna, but are acceptable for steam only intermittently and at lower pressures. They can experience swelling and deformation when exposed to certain oils and animal fats.

FKM (Viton®) gaskets exhibit good all-around characteristics, with good oil, alcohol and acid resistance, and a slightly higher heat and steam tolerance than EPDM.

PTFE (Teflon®) gaskets exhibit exceptional chemical resistance, and extremely high tolerances to heat and steam. However, they're a plastic as opposed to an elastomer, and therefore not as compressible as other gasket materials, which can lead to difficulty in sealing if misaligned. They can experience cold flow, especially if clamps are misaligned or overtightened, resulting in a reduction in sealing pressure.

Silicone gaskets exhibit the widest temperature range. They're often used in place of PTFE gaskets in fluid or steam applications when greater compressibility and leak resistance is required.

Elastomer Characteristics

Characteristic	Buna-N (Nitrile)	EPDM	FKM (Viton®)	PTFE (Teflon®)	Silicone
Identification Dot Code	1 red	3 green	1 white and 1 yellow	None	1 pink
Industry Designation	U	E	SFY	G	X
Temperature Range	-65°F (-54°C) to +210°F (+99°C)	-60°F (-51°C) to +300°F (+149°C)	-20°F (-29°C) to +350°F (+177°C)	-40°F (-40°C) to +450°F (+232°C)*	-80°F (-62°C) to +450°F (+232°C)
Fats & Oils Resistance	Good to Excellent	Poor	Good to Excellent	Excellent	Fair
Acid Resistance	Good	Good to Excellent	Good to Excellent	Good to Excellent	Fair
Alkali Resistance	Good	Good to Excellent	Fair	Excellent	Poor to Fair
Abrasion Resistance	Excellent	Good	Good	Fair	Good
Compression Set Resistance	Good	Fair	Good to Excellent	Cold Flows*	Good to Excellent
FDA CFR 21 Compliant	Yes	Yes	Yes	Yes	Yes
Certification	3A	3A	3A	USP Class VI	3A

*PTFE can experience cold flow over time, especially when subjected to temperature fluctuations, resulting in reduction of sealing pressure. Note: the performance of sanitary gaskets depends on many factors that are governed by the application. This chart cannot be construed as an approval of the gasket for any particular purpose, use, or application.

Note: Viton® and Teflon® are registered trademarks of DuPont Dow Elastomers.

Because we continually examine ways to improve our products, we reserve the right to alter specifications or discontinue products without prior notice.



Gasket Identification

The particular type of gasket material can be identified by the dot pattern printed on the side of each gasket.

Material	Identification Dot Code	Example
Buna-N (Nitrile)	1 red dot	●
EPDM	3 green dots	● ● ●
FKM (Viton®)	1 white and 1 yellow dot	○ ●
PTFE (Teflon®)	None	
Silicone	1 pink dot	●



Mesh Gaskets

Gaskets with a mesh screen are available to help filter particulates from the material stream, protecting tanks and pumps from clogging or foreign particle contamination. They come in a variety of mesh sizes, generally ranging from 10 mesh to 100 mesh, with higher values correlating to a higher mesh density.

Mesh	Micron Equivalent	Wire Diameter (in)	Opening Width (in)	Openings Per in ²
10	1887	0.0230	0.075	100
20	855	0.0160	0.034	400
40	377	0.0100	0.015	1600
60	226	0.0075	0.009	3600
80	176	0.0055	0.007	6400
100	151	0.0045	0.006	10000

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