

Gaskets

The following charts show the abbreviations according to ISO 1629 and ASTM 1418, the temperature range, the chemical description, some trade names, essential qualities of those gasket materials normally used, as well as the compatibility with several media.

Abbreviation	Temperature range	Chemical description	Trade names
NBR	-30 °C – 100 °C	Acrylonitrile-Butadiene-Elastomer	Perbunan, Buna, Baypren, Hycar, Breon, Butakon
EPDM	-35 °C – 140 °C	Ethylene-Propylene-Diene-Elastomer	EPDM, Dutral, Keltan, Vistalon, Nordel, Epsyn
VMQ (MVQ)	-40 °C – 200 °C	Silicone-Elastomer	Silicone, Silastic, Silopren, Rhodorsil
FKM (FPM)	-20 °C – 200 °C	Fluoro-Elastomer	Viton, Fluorel, Tecnoflon, Noxtite, Dai El
PTFE	-200 °C – 260 °C	Polytetrafluoroethylene	Teflon, Halon, Hostafon, Algofton, Fluon

Material properties

Grading: 1 = very good, 2 = good, 3 = satisfying, 4 = sufficient, 5 = deficient, 6 = insufficient

	NBR	EPDM	VMQ	FKM	PTFE
Aging resistance	3	1	1	1	1
Ozone resistance	3	1	1	1	1
Petrol resistance	1	5	5	1	1
Oil and fat resistance	1	4	1	1	1
Acid resistance	4	1	5	1	1
Alkali resistance	3	2	5	1	1
High temp. water res.	3	2	5	2	1
Steam resistance	6	1	4	6	2
Gas impermeability	3	2	2	2	5
Abrasion resistance	2	3	5	4	3
Electric resistance	4	2	1	4	1

Qualified for

NBR

Aliphatic hydrocarbons, for example propane, butane, mineral oil, fats, fuel, inorganic acids, bases of less concentration.

EPDM

Wash bases, acids, alkaline media, organic media, ketones, brake fluid, chlorine, ester, glycol, sodium, phosphates, soda.

VMQ (MVQ)

Gases, hot air, oxygen, vegetable and animal oils and fats, condiments, hydraulic fluid, brake fluid.

FKM (FPM)

Mineral oil, fats, fuel, aliphatic and aromatic hydrocarbons, solvents, weak alkalies, many chemicals.

PTFE

Almost all chemicals.

Not qualified for

Chlorinated and aromatic hydrocarbons, oxydising media, solvents, ester, ketones.

Aliphatic, aromatic and chlorinated hydrocarbons, silicones containing oils and fats (strong swelling).

Hot water, steam.

Solvents, ketones, brake fluid.

Liquid alkali metals, several fluoride and methyl compounds at high pressure and high temperature, sulfur trioxide.