

## Gasket Material Information

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### FKM for Gasket applications

The materials are especially developed for plate heat exchangers. The most suitable grades are based on terpolymers, with cure site monomers, to enable peroxide cure. This gives the ultimate steam and temperature resistance. The main difference between the grades is the fluorine level where the medium types are used for best temperature range and the high fluorine types for best chemical resistance.

The materials have very high cross-linking density. This means that the FKM gaskets exhibit an extremely low compression set at high temperatures over a long period of time. Consequently, the gasket counterforce will endure at a high level and thus ensure a long service life even at high service temperature.

Resistance to salt solutions and strong acids is excellent but base resistance is poor. The material is resistant in many organic fluids including aromatic and alkylated aromatic hydrocarbons (heat transfer oils), chlorinated hydrocarbons and sour fuels. Resistance against low molecular esters, ketones, ethers and aldehydes is very poor. Organic amines (which are included in many corrosion inhibitors), ethanolamine's and ammonia are particularly dangerous and already at ppm level readily attack the material, causing dehydrofluorination, depolymerization and complete dissolution of the rubber. The degradation of FKM from corrosion inhibitors may also cause stress corrosion cracking of stainless steel plates at high temperature. Therefore, always be very careful with dosage and selection of corrosion inhibitors.

Water and steam resistance are very good and continuous service up to 200 °C is possible. Service temperature down to -15 °C is possible as some materials have a TR30 at -15°C.

For specific information regarding temperature range for different materials, see relevant Material Data Sheets.

Ozone resistance is excellent, and storage of gaskets for several years is not critical.

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