Alfa Laval gasket solutions

Plate heat exchanger gaskets for the Semiconductor industry

Alfa Laval, the leading manufacturer of efficient plate heat exchangers, is no stranger to the unique and demanding semiconductor manufacturing industry. We have been present in the industry since the late 1960s.

We work directly with the industry leaders and innovators to design and provide efficient heat exchangers. Our gasketed plate heat exchanger solutions can be designed for your specific clean build and process applications.

Alfa Laval's plate heat exchanger gaskets are designed for use with either titanium or stainless steel plates. Our vast range of gasket options and sizes allow for easy customization to meet your operating demands.

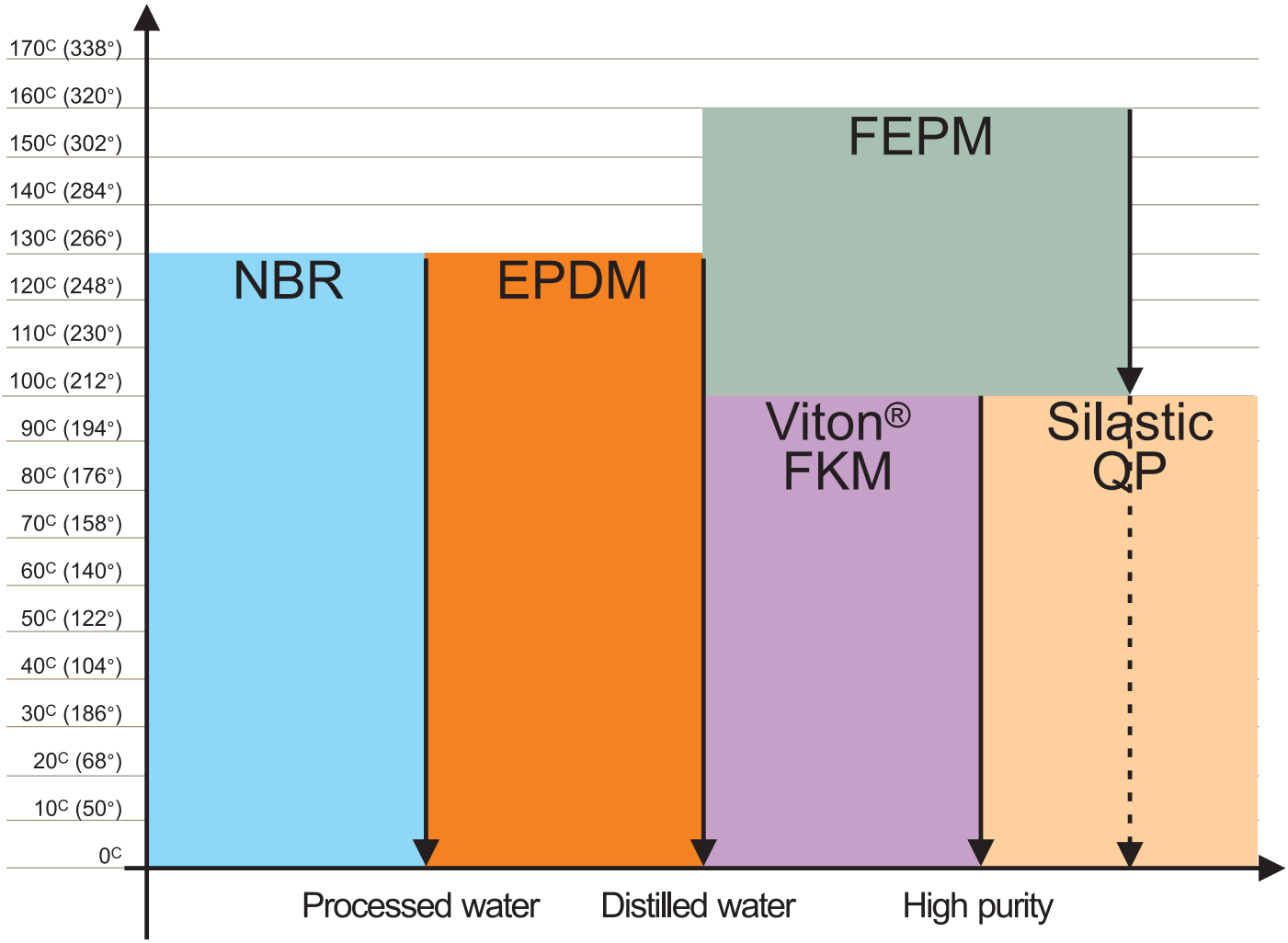
QP Silastic:
Silastic gaskets are the highest purity gasket solution available, containing a silicon elastomer that is based on diethyl and methylvinyl siloxane (VMQ) copolymer that is reinforced with silica. We utilize medical grade silastic to meet the industry's stringent purity demands when measurements of parts per trillion are needed for UPW applications. Silastic gaskets are recommended for use with both titanium and stainless steel, but not to be used with temperatures exceeding 100°C (212°F) with water or steam due to hydrolysis reaction. These gaskets are also ozone resistant, which means they can be stored for later use with proper packaging.

Viton®:
We offer two types of Viton gaskets – FKMT and FKMG. Made of a special fluorocarbon material, these gaskets are tailor-made for use with high temperature steam applications. Viton gaskets are recommended for use with distilled water and systems when lower purity measurements are desired – such as parts per million. Viton gaskets can be used with stainless steel plates up to 180°C (356°F) and up to 100°C (212°F) with titanium plates.

NBR:
The Alfa Laval NBR rubber base is made of an acrylic nitrile and butadiene type of rubber polymer, which gives an oil resistant gasket material combining good oil and solvent resistance at a competitive price. NBR gaskets are the most cost-effective option and are ideal for water-to-water use in non-process related duties such as heat recovery and potable water applications. These gaskets should not come in contact with UPW or steam. NBR gaskets can be used in temperatures up to 138°C (280° F) and are readily stocked and available for immediate delivery.

FEPM:
FEPM is a fluoroelastomer based on an alternating copolymer of tetrafluoro ethylene and propylene. These gaskets have excellent chemical resistance in ammonia/amines, crude oil, hydrogen sulphide, oxidizing fluids, high temperature steam, bases and acids. FEPM gaskets can be used with both titanium and stainless steel plates. They are recommended for use in high temperature applications and for distilled water processes and systems when lower purity measurements are required – such as parts per million. Alfa Laval is currently testing the FEPM material in an actual semiconductor process. (Note: FEPM gaskets cannot be used below 10°C (50°F)).

EPDM and EPDMP:
EPDM gasket material is based on an ethylene-propylene type of rubber polymer. These gaskets have a resistance to water, steam, salt solutions, acids and alkalies and are very good with exception of strong oxidizing acids such as nitric acid or strong hot sulphuric acid. EPDM gaskets can be used with water-to-water and high temperature applications, but it's recommended that these gaskets do not come in contact with UPW, distilled waters or high purity systems.



Alfa Laval can provide additional technical gasket material information. Contact your Alfa Laval thermal specialist for details and technical specifications as it relates to your operating requirements.