PTFE

Encapsulated FEP silicone o-rings

Encapsulated silicone with FEP or PFA, in round, rectangular , square, oval cross section and for Camlok-type fittings, solid or hollow, with no limit as to inside diameter of the o-ring.

¿Why use encapsulated gaskets?

In some applications the use of conventional rubbers is forbidden. Corrosion or high temperatures may have devastating effects on o-rings, causing premature ageing and leaks, therefore it is recommended to use encapsulated gaskets in these circumstances.

O-ring material comparison:

Pure PTFE o-ring:

PTFE is inert and gives an excellent chemical resistance, but as a rigid plastic with practically no memory it cannot be used as a compression gasket since, once removed, it will not ensure proper sealing.

PTFE sandwich:

even though these gaskets are cheaper due to their design, the possibility of side permeation makes them a weak gasket which can be quickly attacked by chemical products.

PTFE-coated o-rings:

With acrylic or latex emulsions with PTFE you can obtain a lower friction coefficient but they do not provide a chemical resistant barrier and the coating gets damaged very easily.

.

merefsa
meet your silicone

PTFE

Encapsulated FEP silicone o-rings

Perfluorelastomer o-rings:
The most advanced material, it provides a fantastic chemical resistance in a very wide range of temperatures but its high cost makes these impossible to use in many occasions.

Metal o-rings:
they have a good chemical resistance and an excellent working capacity under high pressures, but they are very rigid and often expensive.

Encapsulated o-rings:
Always used as a static seal, FEP and PFA give an excellent chemical resistance and the silicone body a flexibility that plastic does not have. A silicone (-60 a +260 ºC) core will be preferably used in conditions where FDA approved items need to be used or there is a potential contact with foodstuff. The use of FEP cover will limit the working temperature range below that of PFA which remains stable up to +260 ºC, having as well a superior resistance to abrasion and pressure.