FCM (Food Contact Materials)

Suitability and restrictions of use

SEALS - Part of Diploma PLC

The below suitability and restrictions must be taken into consideration for products used in food and drug applications according to:

FDA CFR 21: 177.2600 / FDA CFR: 21:177.1550 / EU 1935/2004 / EU 2023/2006/ EU10/2011

FDA

EPDM: Good resistance to alcohol, ketones, mineral acids, and alkalis. Suited for CIP
Not suited with oils and hydrocarbons and fatty foods.
Not recommended for milk fat concentrations higher than 8%
Temperature ranges from -40°c to +140°c

FPM/FKM: High resistance to commonly used chemicals in food, dairy and pharmaceutical applications.
Not suited in ketones, esters, hot concentrated caustic solutions or steam.
Temperature ranges from -20°c to +200°c

VMQ/SIL: Chemical resistant to commonly used chemicals in food, dairy and pharmaceutical applications.
Good resistance to oxidizing agents, alkali solutions, animal, and vegetable fat.
Not recommended in steam, strong acids and alkaline. Low mechanical properties
Temperature ranges from -60°c to +200°c

NBR: Good resistance to mineral oil, animal, and vegetable fat.
Not recommended for CIP
Temperature ranges from -30°c to +100°c

PTFE: Universal chemical resistance.
Caution to be taken for cold flow and overtightening
Temperature ranges from -100°c to +250°c

PTFE: (Envelope) Universal chemical resistance.
Composite gasket, outer PTFE shell and an inner FPM insert providing elasticity
Temperature ranges from -20°c to +200°c

KALREZ: Outstanding universal chemical resistance.
Suitable for CIP, SIP and WFI
Temperature ranges from -20°c to +250°c

PUR: Good resistance to mineral oil, fat, and water. Not suited for SIP
Temperature ranges from -20°c to +100°c

In accordance with FDA cfr21: 177.2600(g), good manufacturing practice, rubber articles intended for contact with food must be thoroughly cleaned prior to food contact