Elastomer Applications and Properties							
Elastomer	**Art.-No.**	**Hardness**	**Temperature Range**	**Colour**	**FDA**	**Resistance**	**Properties**
NBR	E-10011	74	-30°C up to +90°C	Black	No	Mineral oil, grease, low-viscosity media such as water, gases such as air	Standard material for many general applications in the lower price segment
	E-10006	80	-35°C up to +120°C	Light	177.2400		For applications in the food sector
HNBR	E-10009	80	-35°C up to +140°C		177.2400	Mineral oil, grease, low-viscosity media such as water, gases such as air, lye, water vapor	Excellent wear resistant material. Recommended for applications with abrasive particles such as dirty water, dust, etc. High durability.
EPDM	E-10017	69	-45°C up to +130°C	Black	**No**	Thin liquids, gases such as air, washing lye, water vapor, generally high chemical resistance.	**Caution: Not resistant to mineral oils! Use silicone-based lubricants.**
	E-10018	80	-40°C up to +130°C		177.2400		For applications in the food sector
***FPM**	E-10005	80	-10°C up to 210°C	Black	No	Mineral oils, mineral greases, thin liquids such as water, gases such as air, generally high chemical resistance.	High-quality material. Not resistant to water vapor and lye! Standard for general applications.
	E-10004	80	-12°C up to 210°C	Gray	177.2400		For applications in the food sector
***FPM Peroxyd**	E-10001	72	-20°C up to +200°C	Black	177.2400	Steam resistant in addition to FPM	For applications in the food sector
***FPM/PTFE**	E-10008	79	-10°C up to +200°C	Black	177.2400	In addition to FPM resistant to acids	PTFE additive improves the lubricity. For applications in the food sector.
FFKM	E-10002	70	-10°C up to 230°C	White	177.2400	Oils, gasoline, low viscosity media such as water, acids, diluted lye, steam, cleaning agents, alcohol, generally good chemical and media resistance	This high-quality material is used when the chemical resistance of FPM is not sufficient or high temperatures are required. For applications in the food sector
	E-10003	72	-10°C up to +300°C	White			
VMQ	E-10007	80	-40°C up to +200°C	White	177.2400	Oils and greases of aliphatic type, animal and vegetable oils and greases, low-viscosity media such as water, hot water and steam up to 120°C	This material is used where cold stability is required. Has less good mechanical properties than other elastomers.

* FPM is the international abbreviation according to the DIN-ISO standard, while
* FKM is the abbreviation for fluoroelastomers according to the American ASTM standard.

The maximum temperature must not be exceeded at the sealing lip. The maximum permissible temperature is made up of the ambient temperature and the frictional heat. The frictional heat depends on the circumferential speed (surface speed of the shaft), pressure and lubrication). If a material is permanently operated at the limit of its maximum allowed temperature, its life expectancy is shortened.

Elastomer seals are not suitable for dry running. If there is no ambient lubrication, use the double-lip versions and fill the space between the lips with grease to lubricate the sealing lips (see installation instructions).

Most materials can be supplied FDA-compliant for use in the food industry. In the food industry, the cleaning process is often decisive for the selection of a suitable material.

If you cannot find a material for your application in the table, we can also procure suitable materials in small quantities.

For further information on materials and applications, please contact us.