Material Data Sheet E131-B85

EPDM E131 – black (peroxide cross linked)

General

E131-B85 is a black Ethylene Propylene Rubber, commonly referred to as EPDM. This material is often used in hot water steam applications as well as in fire resistant fluids where synthetic oils are used. EPDM materials are also used in bases, acids and alcohols. EPDM is also used for brake fluids, but we recommend observing local safety-regulations before installing an EPDM seal in breaking systems. EPDM is not resistant to mineral- vegetable- and animal oils.

Physical properties

Density:	DIN 53479	g/cm^3	1,22
Hardness at 20°C:	DIN 53505	Shore A	85 ±5
Tensile strength:	DIN 53504	N/mm^2	12,8 ±15%
Elongation at break:	DIN 53504	%	200 ±20%
Modulus 100%:	DIN 53504	N/mm	6,2 ±30%
Tear strength:	DIN 53507B	N/mm	3,2
Compression set: 70h/RT:	DIN 53517A	%	20,9 ±20%
Compression set: 22h/70°C:	DIN 53517A	%	20,7 ±20%
Compression set: 22h/100°C:	DIN 53517A	%	19,8 ±20%
Compression set: 22h/150°C:	DIN 53517A	%	40,9 ±20%
Min. service temperature:		°C	-50
Max. service temperature:		°C	130

Chemical resistance

Water up to 90°	R	Biodegradeable oils	U
Steam up to 180°	R	Fuels	U
HFA, HFB, HFD-S fluids	U	Ozone, Oxygen	R
HFC, HFD-R fluids	R	Alcohols	R
Mineral oils	U	Ketones, Esters	R
Vegetable oils	U	Air up to 100°	R
Silicone oils	S	Air up to 150°	U

Key to chemical resistance: **R = resistant** **S = suitable** **U = unsuitable**

Main application

Static and dynamic seals (standard and special), wipers, O-rings, flange seals, rotary seals, rubber energizers (preload elements); cleaning and washing technology.

Analysis and Evaluation

The mentioned properties are only valid for test pieces of the corresponding ISO, DIN and ASTM standards. They cannot be directly related to seals, gaskets and other sealing products and should be used only as a general guide.