

Material Data Sheet E133-B85

EPDM-KTW-W270 E133 – black (peroxide cross linked)

General

E133-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 to observe 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	1,18
Hardness at 20°C:	DIN 53505	Shore A	87 ±5
Tensile strength:	DIN 53504	N/mm ²	16,3 ±15%
Elongation at break:	DIN 53504	%	188 ±20%
Compression set: 72h/23°	DIN 53517A	%	28,1 ±20%
Compression set: 22h/70°	DIN 53517A	%	18,8 ±20%
Compression set: 22h/100°	DIN 53485	%	13,3 ±20%
Min. service temperature:		°C	-45
Max. service temperature:		°C	120
Short time maximal service temp. in air:		°C	150

Chemical resistance

Water up to 90°	R	Biodegradeable oils	U
Steam up to 180°	U	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; applications where KTW and W270 requirements are needed.

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.