

## **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 <sup>3</sup>	1,18	±0,03
Hardness at 23°C:	DIN 53505	Shore A	88	±5
100% Modulus:	DIN 53504	N/mm <sup>2</sup>	14,6	*
Tensile strength:	DIN 53504	N/mm <sup>2</sup>	19,7	*
Elongation at break:	DIN 53504	%	168,0	*
Tear resistance:	DIN 53515	kN/m	63,9	*
Rebound resilience:	DIN 53512	%	47,0	*
Compression set, 24h, 70°C, 25%:	DIN 53517	%	5,5	*
Compression set, 24h, 100°C, 25%:	DIN 53517	%	2,6	*

\* mentioned values are subject to a tolerance of +/- 25%

**Temperature range:** **-45°C to 120°C**

#### **Chemical resistance**

Resistant to: Water up to 90°C, HFC, HFD-R Fluids, Ozone, Oxygen, Alcohols, Ketones, Esters, Air up to 100°C

Not Resistant to: Steam up to 180°C, HFA, HFB, HFD-S Fluids, Mineral Oils, Vegetable Oils, Biodegradable Oils, Fuels, Air up to 150°C

#### **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**

Values mentioned above are based on several tests performed during development and production of the material. Tests have been performed on standard test pieces specified within the relevant standard within the laboratory. Tests performed on any other pieces which are not related to the corresponding standard or made out of any (semi)finished part or any other part deviating in production process, dimension or age of the material from above may result in different values. The data represent our present empirical values and do not disengage the processor or user from his obligation to examine the usage of the material for his specific application.

We reserve the right to update this data sheet from time to time if new empirical values are available. Errors and omissions excepted.

V2.0