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## **Material Data Sheet AF101-B85**

### **AFLAS\* AF101-black (bisphenol cross linked)**

#### **General**

AF101-B85 is a Tetrafluoroethylene/Propylene copolymer (TFE/P), commonly referred to as FEPM or AFLAS\*. AFLAS\* has a very high resistance to hydraulic fluids (incl. Alkyl-Acryl-Phosphate Esters), all break fluids (on glycole, minerale and silicone base), acids, steam and hot water, sour oils/gases (H<sub>2</sub>S) and heavily formulated oils with amine additives.

#### **Physical properties**

|                                   |           |                   |       |       |
|-----------------------------------|-----------|-------------------|-------|-------|
| Density:                          | DIN 53479 | g/cm <sup>3</sup> | 1,76  | ±0,03 |
| Hardness at 23°C:                 | DIN 53505 | Shore A           | 86    | ±5    |
| 100% Modulus:                     | DIN 53504 | N/mm <sup>2</sup> | 10,6  | *     |
| Tensile strength:                 | DIN 53504 | N/mm <sup>2</sup> | 12,1  | *     |
| Elongation at break:              | DIN 53504 | %                 | 107,4 | *     |
| Tear resistance:                  | DIN 53515 | kN/m              | 47,6  | *     |
| Rebound resilience:               | DIN 53512 | %                 | 9,0   | *     |
| Compression set, 24h, 70°C, 25%:  | DIN 53517 | %                 | 21,7  | *     |
| Compression set, 24h, 100°C, 25%: | DIN 53517 | %                 | 21,0  | *     |
| Compression set, 22h, 175°C, 25%: | DIN 53517 | %                 | 36,8  | *     |

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

**Temperature range:** -15°C to 210°C

#### **Chemical resistance**

Resistant to: Water up to 90°C, Steam, HFA, HFB Fluids, HFC, HFD Fluids, Mineral Oils, Vegetable Oils, Ozone, Break Fluids, Air up to 200°C

Not Resistant to: Fuels, Solvents

#### **Main application**

Static and dynamic seals (standard and special), wipers, O-rings, flange seals, rotary seals, rubber energizers (preload elements). Applications where high temp. and/or chemical resistance is required, oil and gas industry.