

## Material Data Sheet F111-B85

### FPM-black F111 (bisphenole cross linked)

#### General

F111-B85 is a black Fluorocarbon elastomere, commonly referred to as VITON\* and FPM. FPM materials have a very high resistance to hydraulic fluids, chemicals and a number of organic compounds and operate in temperatures between -25 to +210°C. F111-B85 is recommended for applications where its outstanding resistance to heat, chemicals, weathering and ozone is required.

#### Physical properties

Density:	DIN 53479	g/cm <sup>3</sup>	1,88
Hardness at 20°C:	DIN 53505	Shore A	85 ±5
Tensile strength:	DIN 53504	N/mm <sup>2</sup>	11,5 ±15%
Elongation at break:	DIN 53504	%	180 ±20%
Modulus 100%:	DIN 53504	N/mm	7,3 ±30%
Tear strength:	DIN 53507B	N/mm	6,4
Compression set: 70h/RT	DIN 53517A	%	32,0 ±20%
Compression set: 22h/70°C	DIN 53517A	%	27,3 ±20%
Compression set: 22h/100°C	DIN 53517A	%	25,3 ±20%
Compression set: 24h/175°C	DIN 53517	%	32,8 ±20%
Min. service temperature:		°C	-25
Max. service temperature:		°C	210
Short time max. service temp. in air:		°C	280

#### Chemical resistance

Water up to 90°	S	Biodegradable oils	R
Steam	U	Hydrocarbons	R
HFA, HFB, HFC Fluids	S	Alcohols	U
HFD-S, R	R	Diesel, Gasoline, Fuels	R
Mineral oils	R	Ozone, Oxygen	R
Vegetable oils	R	Air up to 200°	R
Silicone oils	R		

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