AFM 55

Technical Data Sheet 355
Edition: 08/2015, supersedes all prior editions.
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Material	**AFM 55** is an asbestos- free gasket and insulating material. It consists of aramide fibers and other asbestos substitutes that are resistant to high temperatures and are processed with high- grade elastomers under elevated pressure and temperature.
Properties	**AFM 55** exhibits good electrical and thermal insulating properties as well as excellent thermal resistance. In the delivered condition, **AFM 55** is soft, pliable and easy to work and process. By means of special temperature treatment or during normal use at elevated temperatures, the material to hardens and obtains its maximum mechanical strength.
Application	For sealing fluids and for thermal and/ or electrical insulation, e.g. in hot pressing or welding devices or for manufacturing transport rollers that are resistant to high temperatures.
Surfaces	As standard, one side of **AFM 55** is coated with a non- stick, high- friction layer that greatly facilitates disassembly.

AFM 55

Technical Data (nominal thickness 2.00 mm)	**Density**	g/ cm³	1.8 - 2.0
	Ignition loss acc. to DIN 52 911	%	< 34
	Tensile strength		
	acc. to ASTM F 152, across grain	N/ mm²	> 10
	acc. to DIN 52 910, across grain	N/ mm²	> 8
	Residual stress acc. to DIN 52 913		
	heated material (2h, 200 °C)		
	16 h, 300 °C	N/ mm²	≈ 20
	16 h, 175 °C	N/ mm²	≈ 28
	Compressibility and recovery		
	acc. to ASTM F 36, procedure J		
	compressibility	%	4 - 10
	recovery	%	> 50
	Swelling acc. to ASTM F 146:		
	in IRM 903 Oil (replaces ASTM Oil No. 3)		
	5 h, 150 °C		
	increase in thickness	%	< 10
	increase in weight	%	< 15
	in ASTM Fuel B		
	5 h, room temp.		
	increase in thickness	%	< 10
	increase in weight	%	< 10
	in water / antifreeze (50:50)		
	5 h, 100 °C		
	increase in thickness	%	< 5
	increase in weight	%	< 10
	Thermal conductivity		
	of a two- sheet device similar to DIN 52612, at 5 N/ mm² surface pressure		
	fresh material (48 h, room temp. 60% rel. hum.)	W/ m·K	≈ 0.65
	heat- treated material (2 h, 200 °C)	W/ m·K	≈ 0.58
	Electrical specific resistance		
	acc. to DIN 53482, at 5 N/ mm² surface pressure		
	fresh material (48 h, room temp., 60% rel. hum.)	cm	≈ 3.7×10^{9}
	heat- treated material (2 h, 200 °C)	cm	≈ 1.7×10^{14}
	Dielectric strength		
	acc. to DIN 53481, at constant voltage		
	fresh material (48 h, room temp., 60% rel. hum.)	kV/ mm	≈ 8.5
	heat- treated material (2 h, 200 °C)	kV/ mm	≈ 10.0
	Short- term **peak temperature**	°C	400
	Maximum **continuous temperature**	°C	300
	Maximum **operating pressure**	bar	100

Max. continuous temperature and max. pressure must not occur simultaneously.

The data quoted above are valid for the material "as delivered" without any additional treatment. In view of the countless possible installation and operating conditions, definitive conclusions cannot be drawn for all applications regarding the behaviour in a sealed joint. Therefore, we do not give any warranty for technical data, as they do not represent assured characteristics. If you have any doubt, please contact us and specify the exact operating conditions.

Form of delivery

Gaskets or punched parts according to a drawing, dimensions supplied, or other arrangement.

Sheets 1500 x 1500 mm (standard size)

Nominal thicknesses and tolerances acc. to DIN 28091-1 **(mm)**
Dimensional limits within a shipment:

0.30	±0.10
0.50	±0.10
0.75	±0.10
1.00	±0.10
1.50	±0.15
2.00	±0.20
3.00	±0.30

Max. thickness variation in a sheet:
0.1 mm for sheet thickness ≤1.00 mm, and 0.2 mm for thickness >1.00 mm