



AFM 39

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Technical Data Sheet 339

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Material	AFM 39 is an asbestos-free gasket 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	The gasket material is physiologically safe and does not contain any colour pigments. On the one hand, this economical gasket material is conformable and flexible, which ensures adequate sealing even with low surface pressure. On the other hand, it provides adequately high stress resistance coupled with good gas sealability. In addition, AFM 39 is resistant to solvents, oils, fuels, water, and many other media.
Application	<ul style="list-style-type: none">• for sealed joints that are subject to moderate thermal and mechanical stress• for lightweight components and flanges• for apparatus, transmissions, pumps• for sealing lightweight components with comparatively low surface pressure, e.g. transmissions, valve covers, oil pans and covers in IC engines.
Surfaces	As standard, both sides of AFM 39 are coated with a non-stick, high-friction layer that greatly facilitates disassembly. In most cases, additional surface treatment is unnecessary.
Approvals	Germanischer Lloyd (DNV GL) Approval for shipbuilding



AFM 39

Technical Data
(nominal thickness 2.00 mm)

Density		g/ cm ³	1.8 - 2.0
Ignition loss acc. to DIN 52 911		%	< 27
Tensile strength			
acc. to ASTM F 152	across grain	N/ mm ²	> 7
acc. to DIN 52 910	across grain	N/ mm ²	> 5
Residual stress acc. to DIN 52 913			
16 h, 175 °C		N/ mm ²	> 25
Compressibility and recovery			
acc. to ASTM F 36, procedure J			
compressibility		%	9 - 18
recovery		%	> 55
Sealability against nitrogen			
acc. to DIN 3535, part 6 FA		mg/ (s·m)	≈ 0.05
Swelling acc. to ASTM F 146			
in IRM 903 Oil (replaces ASTM Oil No. 3)			
5 h, 150 °C			
increase in thickness		%	< 25
increase in weight		%	< 20
in ASTM Fuel B			
5 h, room temp.			
increase in thickness		%	< 25
increase in weight		%	< 20
in water/ antifreeze (50:50)			
5 h, 100 °C			
increase in thickness		%	< 10
increase in weight		%	< 10
Short- term peak temperature		°C	300
Maximum continuous temperature		°C	220
Maximum operating pressure		bar	60



Max. continuous temperature and max. pressure must not occur simultaneously, please refer to the table entitled "Max. operating pressures at various temperatures and with various media"

AFM 39

DIN 28091-2:

Cold creep ϵ_{KSW}	%	9 - 18
Cold recovery ϵ_{KRW}	%	5 - 10
Hot creep during service $\epsilon_{WSW/T}$	%	30 - 35
Hot recovery $\epsilon_{WRW/T}$	%	≈ 0.8
Recovery R	mm	≈ 0.014
Specific leakage rate λ	mg/ (s·m)	< 0.1
Residual surface pressure after 1000 h (in air at 100 °C)	%	> 50

Sealing parameters see corresponding [Table](#)



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** 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:

0.50	±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