

**AFM 38****AFM 38****Technical Data Sheet 338 (previously TDS 278)**

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<b>Material</b>	<b>AFM 38</b> 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.
<b>Properties</b>	<b>AFM 38</b> is the most economical gasket material in the AFM range. The material which is resistant to oils and solvents is characterized by its very high compressibility and flexibility as well as outstanding gas sealability. AFM 38 ensures very effective sealing even under low surface pressure.
<b>Application</b>	<ul style="list-style-type: none"><li>• for sealed joints that are subjected to low mechanical and thermal stress</li><li>• for sealing lightweight components with comparatively low surface pressure, e.g. valve covers, oil pans and covers in IC engines</li><li>• for transmissions, pumps, apparatus, and pipelines in the fittings and sanitary fields.</li><li>• for sealing engine, transmission, hydraulic and refrigerating oils, fuels, and solvents</li><li>• for sealing water as well as mixtures of water and antifreeze &amp; corrosion inhibitors</li></ul>
<b>Surfaces</b>	As standard, both sides of <b>AFM 38</b> are coated with a non-stick, high-friction layer that greatly facilitates disassembly. In most cases, additional surface treatment is unnecessary.
<b>Approvals</b>	<b>Germanischer Lloyd (DNV GL)</b> Approval for shipbuilding



**AFM 38**

**Technical Data**  
(nominal thickness  
2.00 mm)

<b>Density</b>	g/ cm <sup>3</sup>	1.5 - 1.7
<b>Ignition loss acc to DIN 52 911</b>	%	< 45
<b>Tensile strength</b>		
acc. to ASTM F 152 accross grain	N/ mm <sup>2</sup>	> 7
acc. to DIN 52 910 accross grain	N/ mm <sup>2</sup>	> 5
<b>Residual stress acc. to DIN 52 913</b>		
16 h, 175 °C	N/ mm <sup>2</sup>	≈ 20
<b>Compressibility and recovery</b>		
acc. to ASTM F 36, procedure J		
compressibility	%	15 - 25
recovery	%	> 60
<b>Sealability against nitrogen</b>		
acc. to DIN 3535, part 6 FA		
	mg/ (s·m)	< 0.01
<b>Swelling acc. to ASTM F 146</b>		
<b>in IRM 903 Oil (replaces ASTM Oil No. 3)</b>		
5 h, 150 °C		
increase in thickness	%	< 10
increase in weight	%	< 20
<b>in ASTM Fuel B</b>		
5 h, room temp.		
increase in thickness	%	< 15
increase in weight	%	< 15
<b>in water / antifreeze (50:50)</b>		
5 h, 100 °C		
increase in thickness	%	< 5
increase in weight	%	< 10
<b>Short- term peak temperature</b>	°C	300
<b>Maximum continuous temperature</b>	°C	200
<b>Maximum operating pressure</b>	bar	50



**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 38**

**DIN 28091-2:**

<b>Cold creep</b> $\epsilon_{KSW}$	%	15 - 25
<b>Cold recovery</b> $\epsilon_{KRW}$	%	8 - 13
<b>Hot creep during service</b> $\epsilon_{WSW/T}$	%	60 - 70
<b>Hot recovery</b> $\epsilon_{WRW/T}$	%	≈ 0,8
<b>Recovery R</b>	mm	≈ 0.015
<b>Specific leakage rate</b> $\lambda$	mg/ (s·m)	< 0.1
<b>Residual surface pressure</b> 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

<b>0.30</b>	±0.10
<b>0.50</b>	±0.10
<b>0.75</b>	±0.10
<b>1.00</b>	±0.10
<b>1.50</b>	±0.15
<b>2.00</b>	±0.20
<b>3.00</b>	±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