



AFM 33 2

AFM 33/2

Technical Data Sheet 333 (previously TDS 270)

Edition: 08/2015, supersedes all prior editions.

Please see the latest issue at www.reinz-industrial.com

Material	AFM 33/2 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	AFM 33/2 is a gasket material with controlled swelling characteristics in oil. In spite of its controlled swelling in oil that results in particularly good conformability to sealing surfaces, AFM 33/2 exhibits dimensional stability and good tensile strength. In addition, the material seals gases very well.
Application	<ul style="list-style-type: none">• for sealing engine, hydraulic, transmission, refrigerating oils and other hydrocarbons• for sealing air, mixtures of water and antifreeze & corrosion inhibitors• for sealed joints with low sealing pressure or uneven sealing surfaces, e.g. for covers, housings, valve covers, oil pans• for components that are subject to high mechanical stress, yet require a relatively "soft" gasket.
Surfaces	As standard, both sides of AFM 33/2 are coated with a non-stick, high-friction layer that greatly facilitates disassembly. In most cases, additional surface treatment is unnecessary.



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Technical Data
(nominal thickness 2.00 mm)

Density	g/ cm ³	1.55 - 1.75
Ignition loss acc. to DIN 52 911	%	< 40
Tensile strength acc. to ASTM F 152 across grain acc. to DIN 52 910 across grain	N/ mm ² N/ mm ²	> 14 > 10
Residual stress acc. to DIN 52 913 16 h, 175 °C	N/ mm ²	≈ 32
Compressibility and recovery acc. to ASTM F 36, procedure J compressibility recovery	% %	8 - 15 > 55
Sealability against nitrogen acc. to DIN 3535, part 6 FA	mg/ (s·m)	< 0.1
Swelling acc. to ASTM F 146 in IRM 903 Oil (replaces ASTM Oil No. 3) 5 h, 150 °C increase in thickness increase in weight	% %	10 - 30 10 - 30
in ASTM Fuel B 5 h, room temp. increase in thickness increase in weight	% %	10 - 30 10 - 20
Short- term peak temperature	°C	400
Maximum continuous temperature	°C	200
Maximum operating pressure	bar	120



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".

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DIN 28091-2:

Cold creep ϵ_{KSW}	%	8 - 15
Cold recovery ϵ_{KRW}	%	4 - 8
Hot creep during service $\epsilon_{WSW/T}$	%	60 - 70
Hot recovery $\epsilon_{WRW/T}$	%	≈ 0.6
Recovery R	mm	≈ 0.011

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

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

Max. thickness variation in a sheet:

0.1 mm for sheet thickness ≤ 1.00 mm, and 0.2 mm for thickness > 1.00 mm