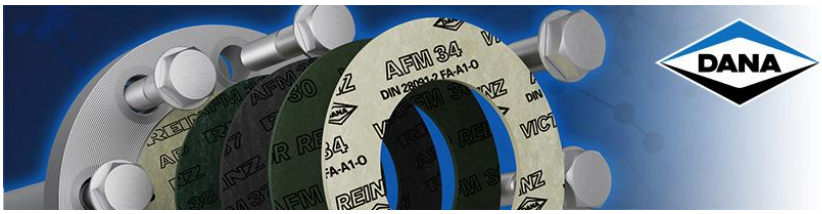
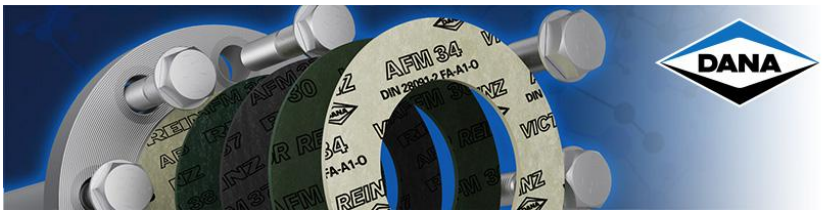


AFM 31

Technical Data Sheet 331 (previously TDS 272)
Edition: 08/2015, supersedes all prior editions.
Please see the latest issue at www.reinz- industrial.com

Material	**AFM 31** is an asbestos- free gasket material. It is composed of aramide fibers and other asbestos substitutes which are resistant to high temperatures. These substitutes are processed with high- grade elastomers under elevated pressure and temperature.
Properties	**AFM 31** is a highly conformable gasket material featuring high compressibility and flexibility plus very good sealability against fluids and gases.
Application	• for sealed joints on lightweight components where surface pressure is relatively low, e.g. on valve covers, oil pans, covers, in IC engines, compressors, pipelines, apparatus and transmissions. • for sealing engine, transmission, hydraulic, and refrigerating oils • for sealing fuels, water, mixtures of water and antifreeze & corrosion inhibitors.
Surfaces	As standard, both sides of **AFM 31** are coated with a non- stick, high- friction layer that greatly facilitates disassembly. In most cases, additional surface treatment is unnecessary.

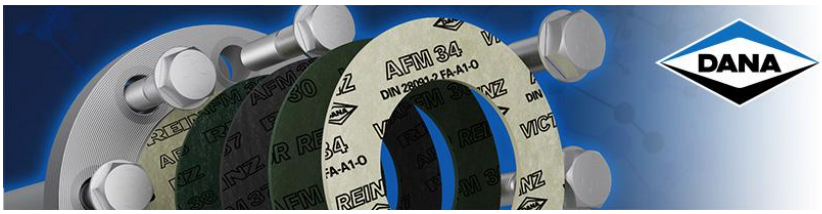


DANA VICTOR REINZ™

AFM 31

Technical Data (nominal thickness 2.00 mm)	**Density**	g/ cm³	1.4 - 1.7
	Ignition loss acc. to DIN 52 911	%	< 45
	Tensile strength		
	acc. to ASTM F 152 across grain	N/ mm²	> 8
	acc. to DIN 52 910 across grain	N/ mm²	> 6
	Residual stress acc. to DIN 52 913		
	16 h, 175 °C	N/ mm²	≈ 24
	Compressibility and recovery		
	acc. to ASTM F 36, procedure J		
	compressibility	%	14 - 23
	recovery	%	> 50
	Sealability against nitrogen		
	acc. to DIN 3535, part 6 FA	mg/ (s·m)	< 0.01
	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	%	< 20
	in ASTM Fuel B		
	5 h, room temp.		
	increase in thickness	%	< 15
	increase in weight	%	< 20
	in water / antifreeze (50:50)		
	5 h, 100 °C		
	increase in thickness	%	< 5
	increase in weight	%	< 15
	Maximum **continuous temperature**	°C	250
	Maximum **operating pressure**	bar	80

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".



DIN 28091-2:

Cold creep ε_{KSW}	%	11 - 20
Cold recovery ε_{KRW}	%	6 - 11
Hot creep during service $\varepsilon_{WSW/T}$	%	60 - 70
Hot recovery $\varepsilon_{WRW/T}$	%	≈ 0.8
Recovery R	mm	≈ 0.015
Specific leakage rate λ	mg/ (s·m)	< 0.025
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

0.30	±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