

**AFM 34 IGV****AFM 34 IGV****Technical Data Sheet 135**

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Material

AFM 34 IGV is an asbestos-free gasket material reinforced with a mesh of galvanized carbon steel. The composite material is physiologically safe and contains no color pigments. It consists of aramide fibers, inorganic fillers and other asbestos substitutes that are resistant to high temperatures, and are processed with high-grade elastomers under elevated pressure and temperature.

Properties

AFM 34 IGV is resistant to many media, e.g. oils, solvents, fuels, saline solutions, refrigerants, alcohols, etc. It is also suitable for sealing hot water and steam up to 200 °C in stationary applications and with an installation surface pressure of at least 50 N/mm². Please consult us if you have a specific application.

Compared with non-reinforced AFM 34, the metal reinforcement lends the gasket material particularly high tensile strength plus high stress & shear resistance, and makes it extremely easy to handle.

AFM 34 IGV withstands higher combined pressure & temperature loads far better than non-reinforced materials.

Application

- for DIN and ANSI flanges, fittings, pumps and apparatus in chemical plants, refineries, power stations, and in shipbuilding
- in general for sealed joints in which high mechanical and/ or thermal stresses or alternating loads occur
- for sealing components with relatively narrow lands, e.g. heat exchangers, steam fittings, air and refrigerating compressors as well as all threaded couplings

Surfaces

As standard, both sides of **AFM 34 IGV** are coated with a non-stick, high-friction layer that greatly facilitates disassembly. In most cases, additional surface treatment is unnecessary.

However, a graphite coating on one or both sides of the gasket is required when used with components that rotate on the gasket during assembly, e.g. in threaded couplings, radiator plugs, etc., as a low friction value is required in these cases.

Approvals

Germanischer Lloyd (DNV GL)
Approval for shipbuilding



AFM 34 IGV

Technical Data
(nominal thickness
2.00 mm)

Density	g/ cm ³	2.00 - 2.20
Ignition loss acc. to DIN 52 911	%	< 26
Tensile strength		
across grain	N/ mm ²	≈ 20
with grain	N/ mm ²	≈ 38
Residual stress acc. to DIN 52 913		
16 h, 300 °C	N/ mm ²	≈ 25
16 h, 175 °C	N/ mm ²	≈ 35
Compressibility and recovery acc. to ASTM F 36, procedure J		
compressibility	%	> 5
recovery	%	> 60
Sealability against nitrogen acc. to DIN 3535, part 6 FA		
	mg/ (s·m)	≈ 0.25
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	%	< 10
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	%	< 5
Content of water- soluble chloride	ppm	< 100
Short- term peak temperature	°C	400
Maximum continuous temperature	°C	250
for steam up to	°C	200
Maximum operating pressure	bar	170



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 34 IGV

DIN 28091-2:		
Cold creep ϵ_{KSW}	%	5 - 8
Cold recovery ϵ_{KRW}	%	2 - 4
Hot creep during service $\epsilon_{WSW/T}$	%	6 - 9
Hot recovery $\epsilon_{WRW/T}$	%	≈ 1.5
Recovery R	mm	≈ 0.030
Specific leakage rate λ	mg / (s·m)	< 0.2
Residual surface pressure after 1000 h (in air at 100 °C)	%	> 50



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

0.80	±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