

**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/mm<sup>2</sup>. 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



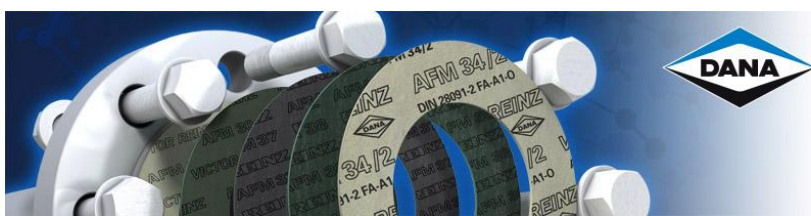
**AFM 34 IGV**

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

<b>Density</b>	g/ cm <sup>3</sup>	2.00 - 2.20
<b>Ignition loss</b> acc. to DIN 52 911	%	< 26
<b>Tensile strength</b>		
across grain	N/ mm <sup>2</sup>	≈ 20
with grain	N/ mm <sup>2</sup>	≈ 38
<b>Residual stress</b> acc. to DIN 52 913		
16 h, 300 °C	N/ mm <sup>2</sup>	≈ 25
16 h, 175 °C	N/ mm <sup>2</sup>	≈ 35
<b>Compressibility and recovery</b> acc. to ASTM F 36, procedure J		
compressibility	%	> 5
recovery	%	> 60
<b>Sealability</b> against nitrogen acc. to DIN 3535, part 6 FA		
	mg/ (s·m)	≈ 0.25
<b>Swelling</b> acc. to ASTM F 146		
<b>in IRM 903 Oil</b> (replaces ASTM Oil No. 3)		
5 h, 150 °C		
increase in thickness	%	< 10
increase in weight	%	< 10
<b>in ASTM Fuel B</b>		
5 h, room temp.		
increase in thickness	%	< 10
increase in weight	%	< 10
<b>in water / antifreeze</b> (50:50)		
5 h, 100 °C		
increase in thickness	%	< 5
increase in weight	%	< 5
<b>Content of water- soluble chloride</b>		
	ppm	< 100
<b>Short- term peak temperature</b>		
	°C	400
<b>Maximum continuous temperature</b>		
for steam up to	°C	250
	°C	200
<b>Maximum operating pressure</b>		
	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:**

<b>Cold creep</b> $\epsilon_{KSW}$	%	5 - 8
<b>Cold recovery</b> $\epsilon_{KRW}$	%	2 - 4
<b>Hot creep during service</b> $\epsilon_{WSW/T}$	%	6 - 9
<b>Hot recovery</b> $\epsilon_{WRW/T}$	%	≈ 1.5
<b>Recovery R</b>	mm	≈ 0.030
<b>Specific leakage rate</b> $\lambda$	mg / (s·m)	< 0.2
<b>Residual surface pressure</b> 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

<b>0.80</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