

# HiMod® FlatSeal™ 20

Long-term resistance  
to high pressure



**Your Partner for Sealing Technology**

## A range of gaskets to meet market needs

The HiMod® flat gasket range consists of products that will satisfy the requirements of the majority of gasket applications within aerospace, chemical and processing industries. It offers compliance with virtually all relevant standards including FDA and those for blowout and fugitive emissions.

### HiMod® FlatSeal™ 20

Providing high long-term pressure resistance, this gasket is also blowout resistant and complies with fugitive emissions standards.

### Applications

- Petrochemicals
- Chemical processing
- Plant construction and maintenance
- General industrial applications

## Features and benefits

- Very high long-term pressure resistance
- Compatible with a high proportion of media commonly used in the chemical industry including oils, greases, acids, alkalis, solvents, refrigerants, water and steam
- Good temperature resistance
- Extended life reduces intervals for planned maintenance
- Compensates for flange unevenness and roughness
- Environmentally-friendly solvent-free
- Leakage less than limits specified in DIN 3535-6
- Blowout resistant
- Complies to fugitive emissions standards
- Approvals: DVGW, KTW, BAM\*, VP-401, WRAS, W270, TA Luft

## Good for people and the environment

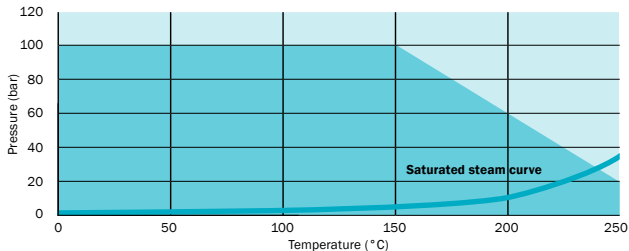
HiMod® FlatSeal™ 20 is manufactured in facilities that comply with ISO/TS 16949 and ISO 14001. This means complete transparency in all areas of production and a high degree of security for our customers.

# Technical information about HiMod® FlatSeal™ 20

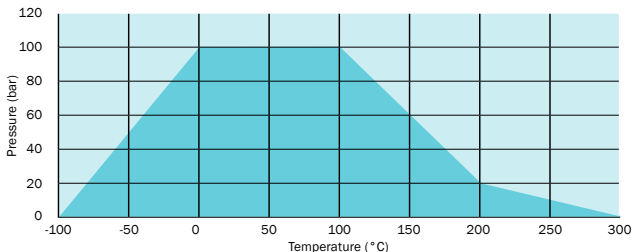
## Recommendations for use

according to pressure and temperature

### Water/steam



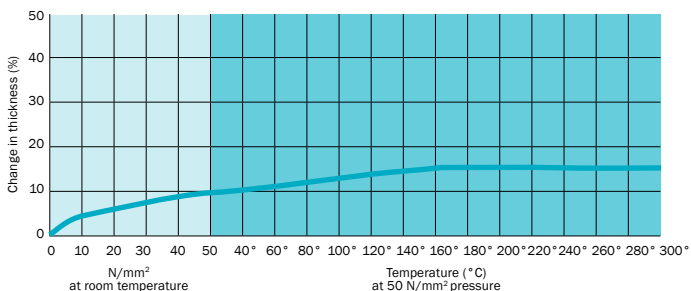
### Other Media



The temperature and pressure recommendations in the graphs apply to gaskets with a thickness of 2.0 mm and smooth flanges. Higher stresses are possible when thinner gaskets are used.

Example for the most commonly used other media. Exact data for specific, individual cases are available on demand.

### Deformation under temperature 2.0 mm



## Material data

General data	
<b>Elements</b>	Graphite, aramide fibers and NBR (Nitrile Butadiene Rubber)
<b>Approvals</b>	DVGW, KTW, WRAS, W 270, VP 401, BAM* (max. 110 °C/130 bar), TA Luft
<b>Color</b>	Royal blue
<b>Anti-stick coating</b>	Both sides to A 310 standard
<b>Thickness in mm</b>	1.0/ 1.5/ 2.0/ 3.0 Further thicknesses are available on request.
<b>Thickness tolerance</b>	According to DIN28091-1

Physical properties	Standard	Unit	Value**
Gasket thickness 2.0 mm			
<b>Identification</b>	DIN 28 091-2		FA - A 1 - 0
<b>Density</b>	DIN 28 090-2	[g/cm <sup>3</sup> ]	1.70
<b>Tensile strength</b>	DIN 52 910		
longitudinal		[N/mm <sup>2</sup> ]	18
transverse		[N/mm <sup>2</sup> ]	14
<b>Residual stress <math>\sigma_{dE/16}</math></b>	DIN 52 913		
175 °C		[N/mm <sup>2</sup> ]	37
300 °C		[N/mm <sup>2</sup> ]	30
<b>Compressibility</b>	ASTM F 36 J	[%]	7
<b>Recovery</b>	ASTM F 36 J	[%]	60
<b>Cold compressibility <math>\epsilon_{KSW}</math></b>	DIN 28 090-2	[%]	6
<b>Cold recovery <math>\epsilon_{KRW}</math></b>	DIN 28 090-2	[%]	3
<b>Hot creep <math>\epsilon_{WSW/200}</math></b>	DIN 28 090-2	[%]	6
<b>Hot recovery <math>\epsilon_{WRW/200}</math></b>	DIN 28 090-2	[%]	2
<b>Recovery R</b>	DIN 28 090-2	[mm]	0.04
<b>Specific leakage rate</b>	DIN 3535-6	[mg/(s·m)]	≤ 0.1
<b>Specific leakage rate <math>\lambda_{2.0}</math></b>	DIN 28 090-2	[mg/(s·m)]	≤ 0.1
<b>Fluid resistance</b>	ASTM F 146		
<b>ASTM IRM 903</b>	5h/150 °C		
Weight change		[%]	≤ 10
Thickness increase		[%]	≤ 5
<b>ASTM Fuel B</b>	5h/23 °C		
Weight change		[%]	≤ 10
Thickness increase		[%]	≤ 5
<b>Chloride content</b>	FZT PV-001-133	[ppm]	≤ 50

\* Approvals applied for. \*\* Mode (typical value).

For further information on the entire HiMod® FlatSeal™ range please contact your local Trelleborg Sealing Solutions marketing company.

[www.tss.trelleborg.com](http://www.tss.trelleborg.com)