

HiMod® FlatSeal™ 36

Maximum safety and standardization throughout the processing plant



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™ 36 - Maximum safety and standardization throughout the processing plant

The gasket's unique material profile offers the best pressure to temperature ratio of any gasket on the market allowing standardization throughout a processing facility.

Applications

- Aircraft engine and APU Gaskets
- Aerospace anti-ice systems and high temperature applications such as vanes
- Can be used universally in a wide variety of areas in the chemical and processing industries including in pipe flanges, apparatuses, pumps, heat exchangers and fittings

Features and benefits

- Unique material profile for the maximum safety requirements
- Metal insert guarantees easy handling before installation and a strong performance in the flange
- Operating temperatures from -240 °C to +550 °C
- Withstands extreme pressure up to 250 bar
- Maximum thermal and mechanical stresses possible, even under changing loads
- Compatible with practically all organic and inorganic acids, alkalis, oils and solvents
- Resistant to corrosion (expanded and flat stainless steel inserts, A ISI 316L / 1.4404)
- Fire safe approved (DIN EN ISO 10497 / AP1607 / BS6755)
- Leakage less than limits specified in DIN 3535-6
- Blowout resistant
- Complies to fugitive emissions standards with or without an inner eyelet
- Approvals: TA Luft*, Fire safe, BAM*, DVGW

Good for people and the environment

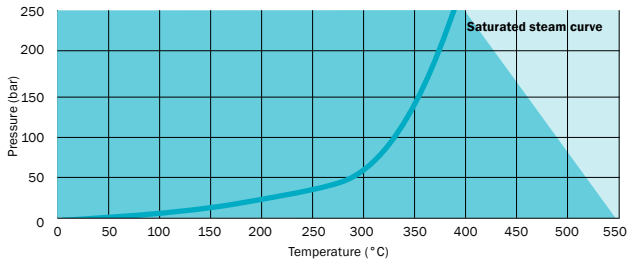
HiMod® FlatSeal™ 36 is manufactured in facilities that comply with ISO/TS 16949 and ISO 14001. This means complete transparency in all areas of production and a high degree of security for our customers.

Technical information about HiMod® FlatSeal™ 36

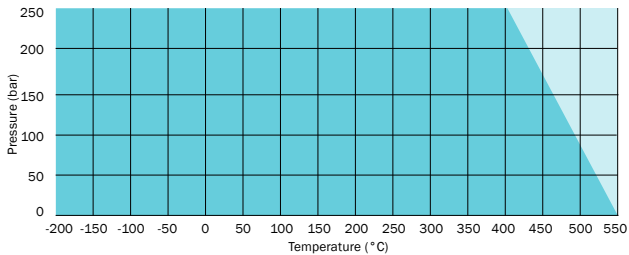
Recommendations for use

according to pressure and temperature

Water/steam



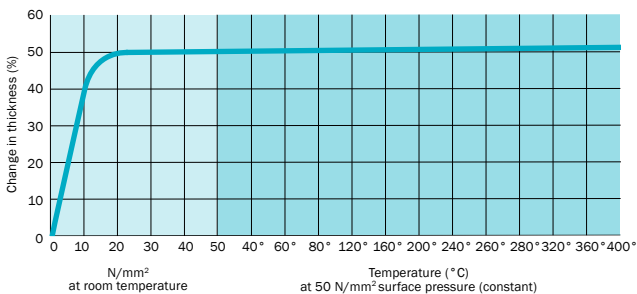
Other Media



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 other media used. Exact data for specific, individual cases are available on demand.

Deformation under temperature 3.0 mm



Material data

General data	
Elements	Expanded graphite (purity >99.5%), expanded and flat metal inserts made from acid-proof stainless steel. Contains no bonding or filling agents.
Approvals	TA Luft* (German clean air act), Fire safe (DIN EN ISO 10497 / AP1607 / BS6755), BAM* (O ₂ : 200 °C/130 bar), DVGW
Color	Graphite gray with white label
Thickness in mm	1.0/ 1.5/ 2.0/ 3.0/ 4.0 Further thicknesses are available on request.
Thickness tolerance	According to DIN28091-1

Physical parameters	Test standard	Unit	Value**
Sample thickness 3.0 mm			
Identification	DIN 28 091-4		GR-8-I-5-Cr
Density	DIN 28 090-2	[g/cm ³]	1.30
Tensile strength	DIN 52 910		
longitudinal		[N/mm ²]	30
transverse		[N/mm ²]	25
Residual stress $\sigma_{dE/16}$ 300 °C	DIN 52 913	[N/mm ²]	> 45
Compressibility	ASTM F 36 J	[%]	45
Recovery	ASTM F 36 J	[%]	15
Cold compressibility ϵ_{KSW}	DIN 28 090-2	[%]	42
Cold recovery ϵ_{KRW}	DIN 28 090-2	[%]	3.5
Hot creep $\epsilon_{WSW/300}$	DIN 28 090-2	[%]	2.5
Hot recovery $\epsilon_{WRW/300}$	DIN 28 090-2	[%]	3
Recovery R	DIN 28 090-2	[mm]	0.09
Specific leakage rate	DIN 3535-6	[mg/(ms)]	< 0.010
Leakage (TA LUFT) <small>Component test 30 Mpa, 300 °C, 1 bar helium</small>	VDI 2200	[mbar·l/(s·m)]	< 0.0001
Chloride content (total)	DIN 28 090-2	[ppm]	≤ 50
Leachable Chloride content	FZT PV-001-133	[ppm]	≤ 20
Total Fluoride and Chloride		[ppm]	≤ 100

* 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