



FlatSeal™ HMF10

VERSATILE FLAT GASKET FOR A WIDE RANGE OF APPLICATIONS



Suitable for a broad variety of standard applications, FlatSeal™ HMF10 is ideal for use in operating environments with moderate temperatures and pressures.

FlatSeal™ HMF10 is an excellent standard flat gasket, suitable for use in moderate pressure and temperature ranges. Its unique composition gives the material special properties:

- Good media resistance
- Excellent residual stress characteristics
- Low gas leakage

For decades, FlatSeal™ HMF10 has proven itself effective in mechanical engineering, plant engineering and shipbuilding applications, as well as in pipework for gas and water supply.

Applications

- Gas and water supply in sanitary systems
- Pipework
- Machine tools and manufacturing equipment

Features and benefits

- Good chemical compatibility
- Ideal for use in moderate temperatures and pressures
- Satisfies leakage limits specified in DIN 3535-6
- Anti-stick coating on one side
- Approvals: DVGW, KTW, VP-401, W270, WRAS, BS7531 (Y)

Ensuring the highest quality every step of the way

Using a state-of-the-art calendaring process, HMF FlatSeal™ gaskets are manufactured with the highest quality raw materials. Every batch of material must match precise specifications and is subjected to rigorous inspection to ensure that only approved materials are used in production.

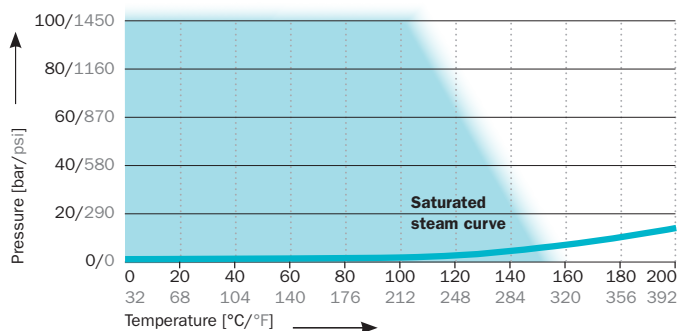
To guarantee consistent high quality at all steps, a process control system monitors and controls the preparation of formulations, their blending operation, and the calendaring process that forms the material sheet from which a FlatSeal™ is formed.

TECHNICAL INFORMATION ABOUT FLATSEAL™ HMF10

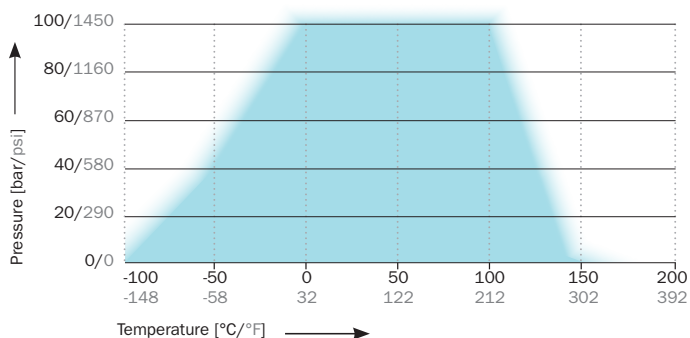
Recommendations for use

The temperature and pressure recommendations in the graphs apply to gaskets 2.0 mm / 0.08 inch thick that are used with raised face flanges. Higher stresses are possible when thinner gaskets are used. The recommendations are based on material characteristics and installation conditions. The information provided should therefore be considered cautious estimates rather than specific operational limits.

Water/water vapor



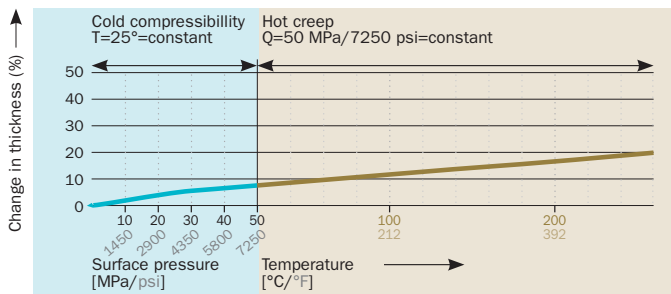
Other Media*



* Other media refers to other media commonly used in gasket applications that is not chemically critical.

Temperature Test

at 50 MPa - sample thickness: 2.0 mm



A precise description of the temperature test can be found in FlatSeal™ Guide 10.

General Data	
Elements	Aramid fibers, functional fillers and Nitrile Butadiene Rubber (NBR)
Approvals*	DVGW, „KTW“ ELL, HTB DIN 30653, W270, WRAS, BS7531 (Y)
Color	Orange
Anti-stick coating	On one side
Thickness in mm	0.5 / 1.0 / 1.5 / 2.0 / 3.0 Further thicknesses are available on request
Thickness tolerance	According to DIN 28091-1

* Details concerning approvals and tests can be found in the Declaration of Compliance which can be requested from your local Customer Solution Center.

Physical Properties	Standard	Unity	Modal Value
Gasket thickness 2.0 mm			
Density	DIN 28090-2	[g/cm ³]	1.70
Tensile strength transverse	DIN 52910	[N/mm ²]	6
Residual stress $\sigma_{dE/16}$ 175 °C	DIN 52913	[N/mm ²]	25
300 °C		[N/mm ²]	18
Compressibility	ASTM F 36 J	[%]	6
Recovery	ASTM F 36 J	[%]	55
Cold compressibility ϵ_{KSW}	DIN 28090-2	[%]	8
Cold recovery ϵ_{KRW}	DIN 28090-2	[%]	3
Hot creep $\epsilon_{WSW/200}$	DIN 28090-2	[%]	27
Hot recovery $\epsilon_{WRW/200}$	DIN 28090-2	[%]	2
Specific leakage rate	DIN 3535-6	[mg/(m*s)]	0,05
Fluid resistance	ASTM F 146		
ASTM IRM 903 Weight change	5h/150 °C	[%]	7
Thickness increase		[%]	2
ASTM Fuel B Weight change	5h/23 °C	[%]	9
Thickness increase		[%]	5
Leachable Chloride content	PV01605	[ppm]	≤ 150



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