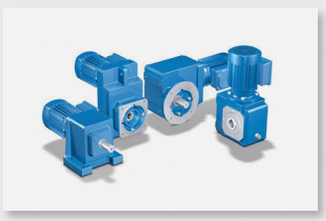
HiMod® FlatSeal™ 17

THE SOLUTION FOR ORIGINAL EQUIPMENT



A range of gaskets to meet market needs

HiMod® FlatSeal™ is based on an innovative blend of high-quality aramid fibers, special functional fillers and Nitrile rubber (NBR). The new material combines the characteristics of fiber gaskets with the positive properties of elastomers, thus making it possible to produce a unique performance profile.

Applications

- Sealing of the lids and housings of gear units, drives and pumps, for example
- Gaskets for easily deformed structural components made of sheet metal or plastic
- Gaskets for non-rigid structures with minimal and inconsistent surface pressure distribution due to large bolt intervals

Features and benefits

- Excellent adaptability to unevenness at minimum surface pressure levels
- Very low leakage levels even when surface pressure is extremely low
- Stable long-term properties at temperature
- Good resistance to media and aging
- Smooth processability and safe handling even with complex gasket outlines
- Approvals: EC 1935/2004, DVGW, FDA and KTW*

Good for people and the environment

HiMod® FlatSeal™ 17 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™ 17

Application recommendations

Media compatibility: HiMod® FlatSeal™ 17 can also be used in contact with oil, lubricant, grease, fuel, cooling agents or gas. It is considerably more resistant to chemicals and aging than pure NBR.

Recommended temperature range: -40°C to 130°C

Recommended pressure range: From high vacuum to a maximum of around 5 MPa

The pressure and temperature limits given are influenced by material characteristics and installation conditions, the surface pressure level in particular.

Special features

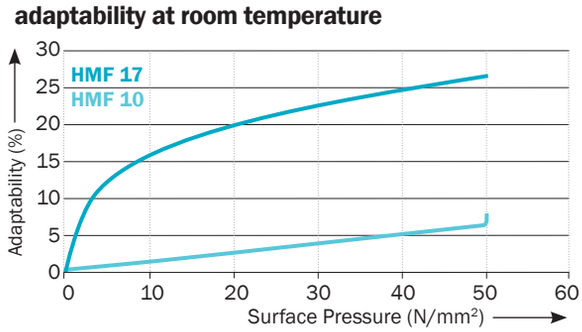
HiMod® FlatSeal™ 17 combines the advantages of a rugged, durable and mechanically stable fiber gasket with those of a flexible, adaptable elastomer gaskets.

The graph below compares the adaptability at a defined surface pressure level of a standard fiber gasket with a HiMod® FlatSeal™ 17. Even at a low surface pressure level, HiMod® FlatSeal™ 17 is significantly more adaptable than a standard fiber gasket. The improved performance of HiMod® FlatSeal™ 17 increases steadily as the pressure rises.

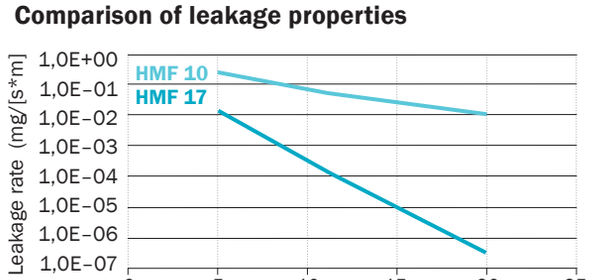
A comparison of leakage properties at an internal pressure level of 10 bar in relation to the surface pressure level shows that HiMod® FlatSeal™ 17 is substantially better than conventional fiber gaskets, almost reaching the level of rubber gaskets. See graph below.

The values contained in this leaflet are for guidance only. It is the responsibility of the user to test material for suitability within a specific application.

Comparison of a standard gasket to HiMod® FlatSeal™ 17 adaptability at room temperature



Comparison of leakage properties



dimension 92x49x1 mm, 10 bar helium, room temperature

Material data

General data	
Components	Aramide fibers and NBR (Nitrile Butadiene Rubber)
Anti-stick coating	Non-standard
Identification color	Both sides light brown
Approvals	EC 1935/2004, DVGW, FDA and KTW*

Physical properties Gasket thickness 1.0 mm	Standard	Unit	Value*
Density	DIN 28 090-2	[g/cm³]	1.25
Tensile strength longitudinal transverse	DIN 52 910	 [N/mm²] [N/mm²]	 9 5
Compressibility	ASTM F 36 J	[%]	35
Recovery	ASTM F 36 J	[%]	65
Residual stress $_{odE/16}$ 175°C	DIN 28 090-2	[%]	5.5
Fluid resistance	ASTM F 146		
ASTM IRM 903 Weight change Thickness increase	5 h/150 °C	 [%] [%]	 8 2
ASTM Fuel B Weight change Thickness increase	5 h/23 °C	 [%] [%]	 13 9
Coolant/water (50:50) Weight change Thickness increase	5 h/100 °C	 [%] [%]	 5 1
Specific leakage rate	DIN 3535-6	[mg/(m*s)]	0.002

* Typical value

Product data	
Dimensions [mm]	1000 x 1500, 1500 x 1500, 3000 x 1500
Thicknesses [mm]	0.5 / 0.75 / 1.0 / 1.5 / 2.0 **Further dimensions and thicknesses are available on request**

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