

# KLINGER® QUANTUM

Unique gasket material with the highest flexibility at high temperatures

KLINGER® Quantum is the first fiber reinforced gasket material in the world that is exclusively HNBR-bound. Together with a unique production process developed specifically for the purpose, this material can be used at higher temperatures and with a much wider range of media than any other fiber reinforced gasket material that is currently available.

This material is suitable for use in oils, water, steam, gases, salt solutions, fuels, alcohols, weak organic and inorganic acids, hydrocarbons, lubricants and refrigerants. KLINGER® Quantum is manufactured with a high-quality fiber and filler compound reinforced with a high temperature resistant HNBR matrix.



## TYPICAL VALUES REFER TO 2.0 MM THICK MATERIAL UNLESS NOTED

Compressibility ASTM F36J	8 - 14 %
Recovery ASTM F36J	50 % minimum
Stress Relaxation DIN 52913	
50 MPa, 16h/175°C	32 MPa
50 MPa, 16h/300°C	30 Mpa
Stress Relaxation BS 7531	
40 MPa, 16h/300°C	29 MPa
KLINGER Hot Compression Test	
Thickness Decrease 73°F (23°C)	10 % initial
Thickness Decrease 572°F (300°C)	14 % additional
Thickness Decrease 752°F (400°C)	20 % additional
Tightness DIN 28090-2	0.02 mg/s x m
Thickness Increase ASTM F146 after immersion in	
ASTM Oil IRM903, 5h/300°F (149°C)	3 %
ASTM Fuel B, 5h/73°F (23°C)	5 %
Average Dielectric Strength E <sub>d</sub>	18.5 kV/mm
Density	106 lb/ft <sup>3</sup> (1.7 g/cm <sup>3</sup> )
ASTM F104 Line Call Out	F712122B3E22M5
Color	White

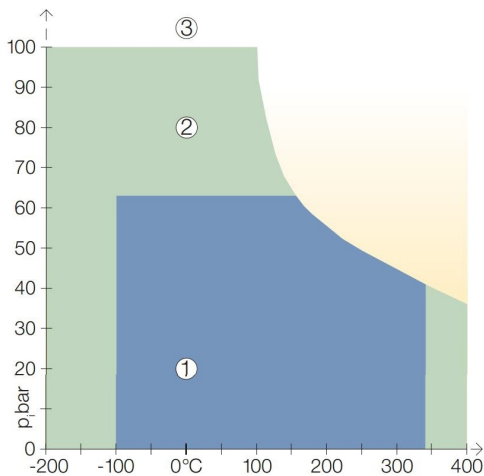
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### CERTIFICATES & APPROVALS

- » BAM-tested
- » DIN-DVGW
- » TA-Luft (Clean air)
- » Fire-Safe acc. to DIN EN ISO 10497
- » FDA conformity (must specify unbranded)

The pressure/temperature graphs shown are the most current method of determining the suitability of a gasket material in a known environment. However, chemical compatibility must also be considered.

#### pT diagram for thickness 2.0 mm:



In area ① the gasket material is suitable using common installation practices subject to chemical compatibility.

In area ② appropriate measures are necessary for installation of the gasket to ensure maximum performance. Please call or refer to KLINGERexpert for assistance.

In area ③ do not install gaskets in these applications without first referring to KLINGERexpert or contacting KLINGER's technical support service.

The ability of a gasket to make and maintain a seal depends not only on the style and quality of the gasket material, but also on medium being sealed, the flange design, the amount of pressure applied to the gasket by the bolts and how the gasket is assembled onto the flanges and tightened. These factors are beyond the manufacturer's control.

#### KLINGER Thermoseal

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