



# KLINGER Quantum

*Quantum was developed to bring an unprecedented level of flexibility for fibre reinforced gasket materials at high temperatures. Klinger Quantum is exclusively HNBR bound which affords the material excellent temperature resistance and resistance across a much broader range of chemicals than all other fibre reinforced gasket materials.*

The Klinger group has been recognised as the market leader in gaskets and sealing for over a century. Our research and development laboratories have investigated over 250 different fibre forms in the search for asbestos free alternatives. The search has resulted in a range of high quality and high performance asbestos free materials that have been proven in service.

### General Properties

- Unique material with HNBR
- Suitable for continuous service at 350 °C
- Outstanding resistance to steam
- Excellent chemical resistance
- 3xA anti-stick finish on both sides

### Tests and Certifications

- BS 7531 Grade AX
- Fire-safe to DIN EN ISO 10497 / API 607
- DIN-DVGW
- BAM for use with oxygen 160 bar / 90 °C
- KTW
- TA-Luft (Clean Air) certificate acc. VDI 2440

### Availability

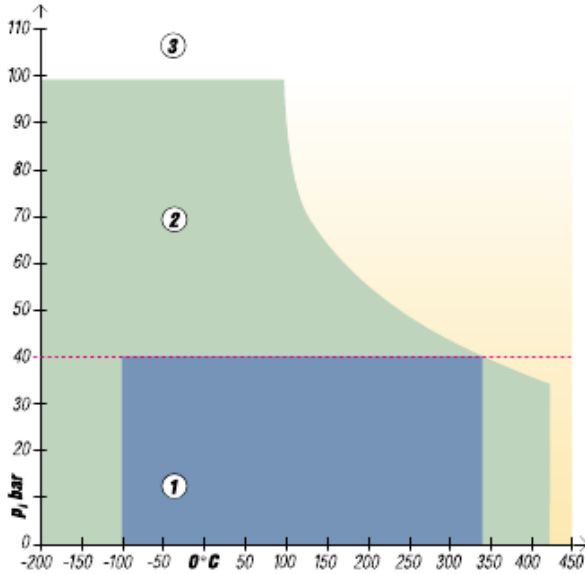
Sheeting (m): 2.0 x 1.5\*, 4.0 x 1.5  
Thickness (mm): 0.8, 1.0, 1.5, 2.0, 3.0

\* - Denotes standard sheet size





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## Application Guidelines

1. Usually satisfactory without reference.
2. Usually satisfactory, but suggest you refer to Klinger for advice
3. Caution: May be suitable but essential that you refer to Klinger for advice.

Chemical compatibility must be considered in all cases.

### Typical Specifications

Compressibility ASTM F 36 A		10%
Recovery ASTM F 36 A		60% min.
Stress relaxation DIN 52913	50MPa, 16h/175 °C	32MPa
	50MPa, 16h/300 °C	28MPa
Stress relaxation BS 7531		27MPa
Klinger cold/hot compression, 50MPa	Thickness decrease 23 °C	10%
	Thickness decrease at 300 °C	14%
	Thickness decrease at 400 °C	20%
Thickness increase after fluid immersion ASTM F 146	Oil no.3:5h/150 °C	3%
	Fuel B:5h/23 °C	5%
Density		1.7g/cm <sup>3</sup>
Tightness	DIN 28090-2	<0.02mg/(m.s)
Specific leak rate λ	VDI2440	4.4x10 <sup>-8</sup> mbar.l/(m.s)
Cold Compression	DIN 28091-2	6-9%
Cold recovery	DIN 28091-2	3-5%
Hot compression	DIN 28091-2	<18%
Hot recovery	DIN 28091-2	2%

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