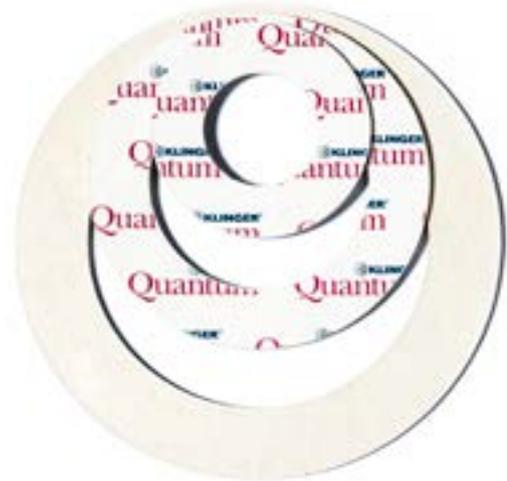


# KLINGER® Quantum

KLINGER® Quantum is a unique gasket material with the highest flexibility at high temperatures.

High-quality fibre and filler compound bonded in a high temperature resistant HNBR-matrix. This material is suitable for the use in oils, water, steam, gases, salt solutions, fuels, alcohols, moderate organic and inorganic acids, hydrocarbons, lubricants and refrigerants.



## Key features:

- » Unique HNBR matrix
- » Special curing technology
- » Resistant to creep and cold flow
- » Dimensionally stable

## Benefits:

- » Superior long-term flexibility at higher temperatures
- » Outstanding temperature resistance
- » FDA conformity

## Certificates and approvals:

- » BAM-tested
- » DIN-DVGW
- » TA-Luft (Clean air)
- » Fire-Safe acc. DIN EN ISO 10497

## Properties: referring to KLINGERSIL® product range

SUPERIOR	[Shaded]			
EXCELLENT	[Shaded]	[Shaded]	[Shaded]	[Shaded]
VERY GOOD	[Shaded]	[Shaded]	[Shaded]	[Shaded]
GOOD	[Shaded]	[Shaded]	[Shaded]	[Shaded]
MODERATE	[Shaded]	[Shaded]	[Shaded]	[Shaded]
	MECHANICAL RESISTANCE	THERMAL RESISTANCE	SEALABILITY	CHEMICAL RESISTANCE

## Industries:



## Typical technical data for thickness 2.0 mm:

Compressibility ASTM F 36 J		%	10
Recovery ASTM F 36 J		%	50
Stress relaxation DIN 52913	50 MPa, 16 h/175°C	MPa	32
	50 MPa, 16 h/300°C	MPa	30
Stress relaxation BS 7531	40 MPa, 16 h/300°C	MPa	29
KLINGER cold/hot compression	thickness decrease at 23°C	%	10
50 MPa	thickness decrease at 300°C	%	14
	thickness decrease at 400°C	%	20
Tightness	DIN 28090-2	mg/s x m	0.02
Specific leakrate $\lambda$	VDI 2440	mbar x l/s x m	4.4E-08
Thickness increase after fluid immersion ASTM F 146	oil IRM 903: 5 h/150°C	%	3
	fuel B: 5 h/23°C	%	5
Density		g/cm <sup>3</sup>	1.7
Average surface resistance	$\rho_O$	$\Omega$	7.7x10E12
Average specific volume resistance	$\rho_D$	$\Omega$ cm	4.7x10E12
Average dielectric strength	$E_d$	kV/mm	18.5
Average power factor	50 Hz	tan $\delta$	0.064
Average dielectric coefficient	50 Hz	$\epsilon_r$	6.8
Thermal conductivity	$\lambda$	W/mK	0.44
Classification acc. to BS 7531:2006	Grade AX		
<b>ASME-Code sealing factors</b>			
for gasket thickness 1.0 mm	tightness class 0.1mg/s x m	MPa	y 15 m 1.1
for gasket thickness 2.0 mm	tightness class 0.1mg/s x m	MPa	y 15 m 2.5
for gasket thickness 3.0 mm	tightness class 0.1mg/s x m	MPa	y 15 m 3.8

## Dimensions of the standard sheets:

### Sizes:

1000 x 1500 mm, 2000 x 1500 mm

### Thicknesses:

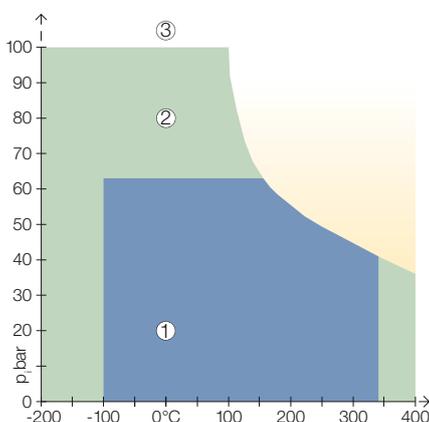
0.8 mm, 1.0 mm, 1.5 mm, 2.0 mm, 3.0 mm

### Tolerances:

Thickness acc. DIN 28091-1  
 Length  $\pm$  50 mm, width  $\pm$  50 mm

Other thicknesses, sizes and tolerances on request.

## pT diagram for thickness 2.0 mm:



①

In area one, the gasket material is normally suitable subject to chemical compatibility.

②

In area two, the gasket material may be suitable but a technical evaluation is recommended.

③

In area three, do not install the gasket without a technical evaluation.

Always refer to the chemical resistance of the gasket to the media.

