



# KLINGERSIL C-4400



High quality non-asbestos grade based on aramid fibre with nitrile rubber binder. A general purpose material for many industrial-sealing applications.

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**

- » Good resistance to oils, fuels, hydrocarbons
- » Good creep resistance
- » Low leakage
- » Very successful in internal combustion engine applications
- » 3xA anti-stick finish on both sides

### **TESTS AND CERTIFICATIONS**

- » BS 7531 Grade Y
- » BS F 130 Type A
- » Firesafe HTB 90.0223.39.0
- » DIN-DVGW
- » BAM U W28 for use with oxygen 100℃ / 80 Bar
- » KTW A 528/88/G
- » SVGW 89-053-7
- » Germanischer Lloyd 98 952 97 HH
- » TA-Luft (Clean Air) certificate acc. VDI 2440

### **AVAILABILITY**

- » Sheeting (m): 2.0 x 1.5\*, 4.0 x 1.5
- » Thickness (mm): 0.25, 0.4, 0.5, 0.75, 1.0, 1.5, 2.0, 2.5, 3.0
- \* Denotes standard sheet size

Also available with re-inforcements: KLINGERsil C-4408, mild steel mesh KLINGERsil C-4409, expanded mild steel



### **APPLICATION GUIDELINES**

# Pressure (bar) 100 90 80 70 60 100 100 200 100 320 100 350 Temperature (°C)

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- Caution: May be suitable but essential that you refer to Klinger for advice
- Usually Satisfactory, but suggest you refer to Klinger for advice
- Usually Satisfactory to Use Without Reference

NOTE: Chemical Compatibility should be considered in every case.

### **TYPICAL SPECIFICATIONS**

(Typical Values for 1.5mm thick material)

PROPERTIES	CONDITIONS	VALUES
Compressibility ASTM F 36 J		11 %
Recovery ASTM F 36 J		55 %
Stress relaxation DIN 52913	50MPa, 16h/175°C	37MPa
	50MPa, 16h/300°C	25MPa
Stress relaxation BS 7531	40MPa 16h/300°C	25MPa
Klinger cold/hot compression, 50MPa	Thickness decrease 23°C	10 %
	Thickness decrease at 300°C	20 %
Gas leakage according to DIN 3535/6		0.02mg/s.m
Thickness increase after fluid immersion ASTM F 146	Oil no.3:5h/150°C	3 %
	Fuel B:5h/23°C	5 %
Chlorides (soluble)		<150ppm
Density		1.6g/cm <sup>3</sup>
Average surface resistance	ρΟ	1.4x10 <sup>12</sup> Ω
Average specific volume resistance	ρD	$1.2 \mathrm{x} 10^{12}  \Omega \; \mathrm{cm}$
Average dielectric strength	E <sub>d</sub>	21.6 kV/mm
Average power factor	1kHz,ca. 2mm thick	0.131 tan <b>δ</b>
Average dielectric constant	1kHz,ca. 2mm thick	9.2 εr
Thermal conductivity	λ	0.40-0.42W/mK



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