



# KLINGER TOP-SIL-ML1



Optimised, unique multi-layer combination of a HNBR and NBR Matrices. Premium quality jointing with high temperature resistance in steam and water as well as excellent resistance to oils and hydrocarbons.

This multilayer structure makes it possible to develop materials with new property profiles. The layers containing the elastomers remain flexible over longer periods than standard material, even at higher temperatures, are therefore able to compensate for dynamic loading fluctuations induced by the flange. This flexibility suppresses the creation of micro-crevices, which are responsible for gasket leakage. The layers containing standard elastomers are better able to resist deformation under load due to the formation of a denser network. The gasket remains flexible but still retains its strength.

## APPLICATIONS

- » Designed for high temperatures, steam, oils and hydrocarbons

## GENERAL PROPERTIES

- » Unique multilayer material designed for high temperature service
- » Outstanding resistance to steam
- » Available in sheet form and as cut gaskets
- » Excellent creep resistance
- » Resistant to oils, fuels, hydrocarbons etc.
- » WRAS approved for use in hot and cold potable water
- » 3xA anti-stick finish on both sides

## TESTS AND CERTIFICATES

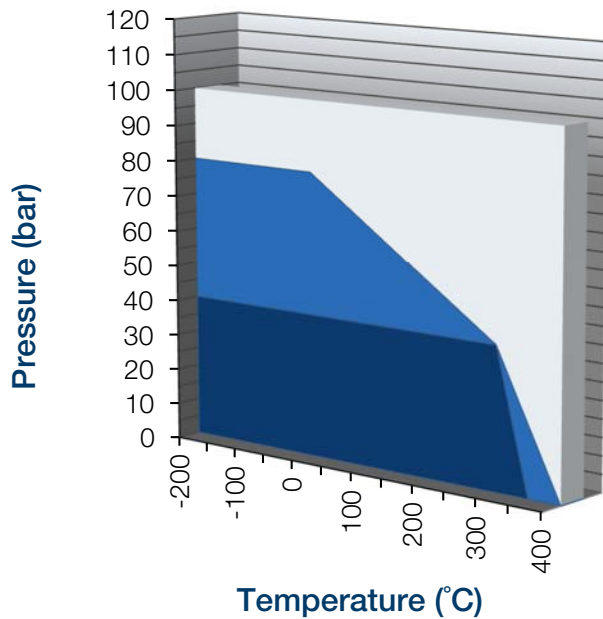
- » BS 7531 Grade X
- » BAM-tested
- » DIN-DVGW
- » WRAS approval
- » TA-Luft (Clean air)
- » Fire-Safe acc. to DIN EN ISO 10497

## AVAILABILITY

- » Sheetting (m): 2.0 x 1.5\*, 4.0 x 1.5
- » Thickness (mm): 0.75, 1.0, 1.5, 2.0, 3.0

## APPLICATION GUIDELINES

# TOP-SIL-ML1



■ 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 must be considered in all cases

## TYPICAL SPECIFICATIONS

(Typical values for 2.0mm thick material)

PROPERTIES	CONDITIONS	VALUES
Compressibility ASTM F 36 J		9%
Recovery ASTM F 36 J		50%
Stress relaxation DIN 52913	50MPa, 16h/175°C	34MPa
	50MPa, 16h/300 °C	28MPa
Klinger cold/hot compression (50MPa)	Thickness decrease 23°C	8%
	decrease at 300°C	15%
Tightness	DIN 28090-2	0.05 mg/s.m
Thickness increase after immersion in:	Oil IRM 903, 5h/150°C	4%
	Fuel B, 5h/23 °C	8%
Density		1.7g/cm <sup>3</sup>

### HEAD OFFICE

KLINGER Ltd  
Wharfedale Road  
Euroway Trading Estate  
Bradford BD4 6SG

Tel: 01274 688 222  
Fax: 01274 688 549  
www.klinger.co.uk  
enquiries@klingeruk.co.uk



FM 602916 FM 10571 OHS 570166 EMS 570165

### KLINGER RUNCORN

Tel: 01928 577 030  
Fax: 01928 575 233

### KLINGER SOUTHAMPTON

Tel: 02380 611 855  
Fax: 02380 610 360

### KLINGER ABERDEEN

Tel: 01224 772 962  
Fax: 01224 772 953

### KLINGER IMMINGHAM

Tel: 01469 575 289  
Fax: 08449 676 779

### KLINGER MIDDLESBROUGH

Tel: 01642 220 289  
Fax: 01642 220 290

### KLINGER GRANGEMOUTH

Tel: 01324 472 231  
Fax: 01324 482 111