Maxiprofile

KLINGER

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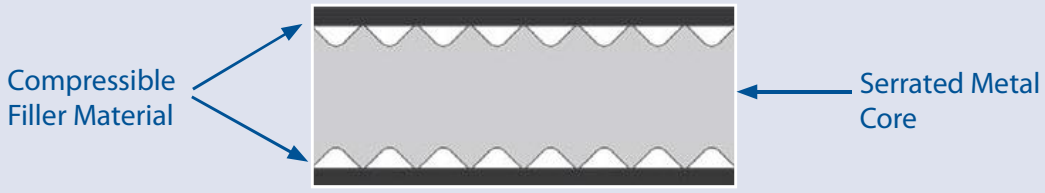
MAXIPROFILE

The Klinger Maxiprofile is a composite gasket which utilises a serrated metal core with a soft facing material. The metal core is a machined on each contact face with concentric serrations which provide high pressure areas, ensuring that the soft coating flows into any imperfections in the flange even at relatively low bolt loads. The soft facing material is engineered to compress in to the serrations on the core and form a thin film across the peaks creating the ideal sealing density in the grooves of the profile. The result is a gasket which combines the benefits of soft cut materials with the advantages of seal integrity associated with metallic gaskets.



Expanded graphite is the most common facing material used for Maxiprofile gaskets. However, other materials can be used, such as PTFE for chemically aggressive duties or mica for high temperature service.

Facing Material	Maximum Temperature
Graphite	550ºC
PTFE	260ºC
Mica	1000ºC
KLINGERSIL® C-4430	250ºC

Maxiprofile gaskets can also be manufactured from a range of core materials according to media compatibility and temperature considerations.

Core Material	Maximum Temperature
316L Stainless Steel	800°C
304 Stainless Steel	550°C
Duplex UN S31803	800°C
347 Stainless Steel	800°C
321 Stainless Steel	800°C
Monel 400	450°C
Nickel 200	315°C
Titanium Gr 2	350°C
Hastelloy B-2/B-3	450°C
Hastelloy C-276	450°C

Core Material	Maximum Temperature
Inconel 600	1000°C
Inconel 625	450°C
Incoloy 825	450°C
Zirconium	500°C
Super Duplex	600°C
254 SMO	600°C
Titanium Gr7	350°C
Hastelloy C-22	450°C
Hastelloy G-31	450°C
Alloy 20	600°C

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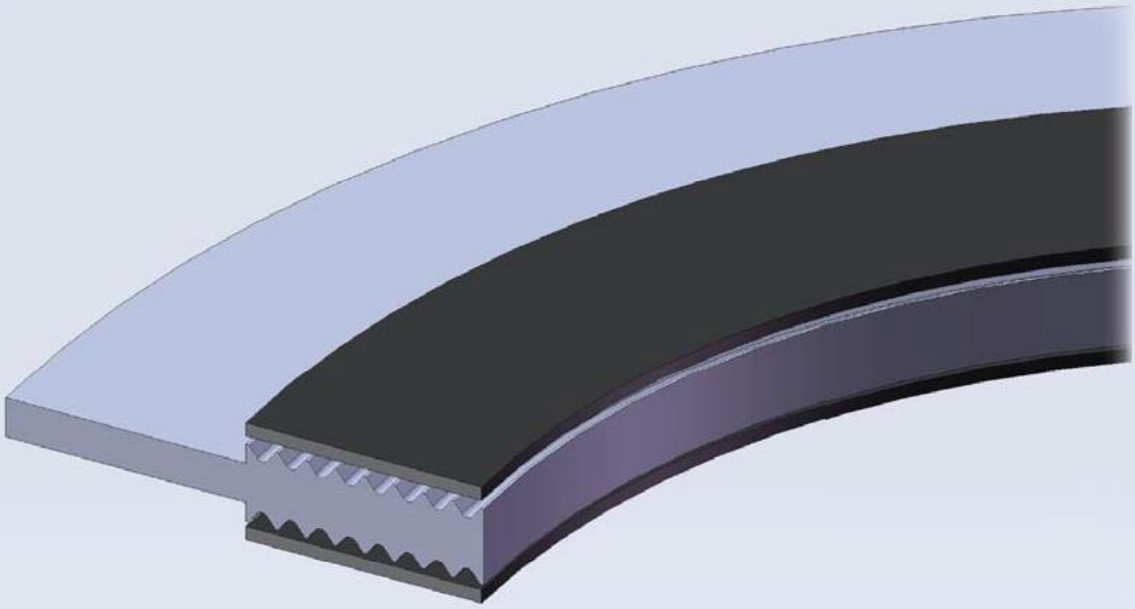
General Properties of Maxiprofile Gaskets:

- A wide range of seating stresses under which the seal is effected and maintained
- Can be used when there is insufficient bolt load to seal conventional gasket materials
- Easy to handle and fit
- Suitable for a wide range of operating conditions
- The soft facing layer prevents damage to the mating flange
- Sealing is not sensitive to uneven bolt loading conditions
- Can be refurbished with a new facing layer and reused



Applications of Maxiprofile Gaskets:

- Heat exchanger and vessel applications
- High and low temperatures
- Pressures of up to 250 bar
- Low bolt loads
- Narrow flange widths
- Damaged flanges

Core Design

Standard core design is parallel which offers the advantage of even stress distribution across the gasket face. Convex Maxiprofiles are also available which have a reduced depth of grooves towards the profile centre. This type of profile ensures a high seating stress in the middle of the profile and is effective for low bolt load applications.

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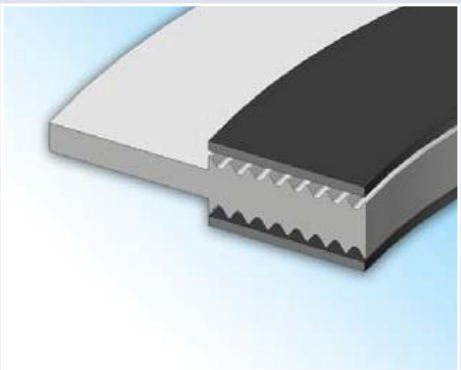
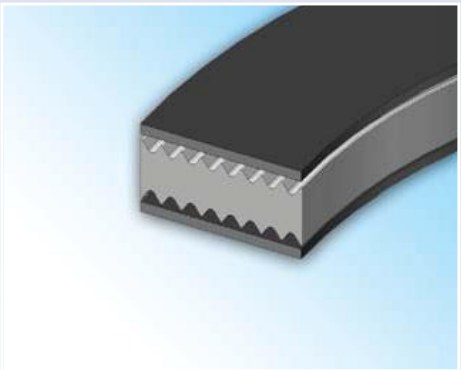
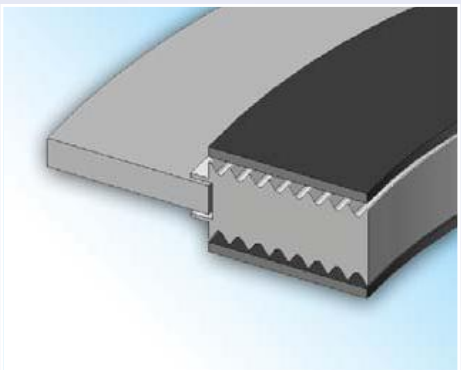


Maxiprofile LA 1



Maxiprofile LA 2



Maxiprofile LA 3

Klinger Maxiprofile Type 109

Applications:

- Used for a wide range of applications including steam, oil , hydrocarbons and can also be tailored to suit more aggressive chemicals
- Used for applications requiring a high-integrity seal such as chlorine
- Especially suited to use in heat exchangers

Typical Properties:

- High pressure gasket with a wide seating stress range
- Excellent tightness even at low bolt loads
- Reusable metallic core can be refaced after service
- Available facings include:
- Graphite, PTFE, KLINGERSIL and Soft-chem

Typical Specifications:

Core material :	316L - 3.0, 4.0, 5.0mm	
Facing material:	Graphite - 0.5mm	
Facing density:	1 g/cm³ (alternative 0.7g/cm³)	
Max. temperature :	550ºC	
Max. pressure	>400 bar	
Suitability	For flanges to:	ASME B16.5, DIN standards, BS 10, JIS standards and custom designs

Style:	Description:
LA 1	Used for standard pipework. Lateral profiled joint with guide ring for raised and flat face applications
LA 2	Used for vessels and heat exchangers. Lateral profiled joint without guide ring for male and female, tongue and groove and grooved flanges
LA 3	Used for large diameter standard pipework. Lateral profiled joint with floating guide ring for raised and flat face applications
CA1, 2 & 3	Convex profiled joints in the same style as LA 1, 2 and 3. The convex profile is designed to assist sealing in low bolt load applications

Metallic cores are available in a wide range of metallic materials shown on page 62.

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Klinger Maxitherm

Applications:

- Designed for use at high temperatures and to create a seal at low bolt loads.
- Especially suited to use in heat exchangers

Typical Properties:

- High pressure gasket with a wide seating stress range
- Excellent tightness even at low bolt loads
- Reusable metallic core can be refaced with mica after service

Typical Specifications:

Core material :	Inconel 600 - 3.0, 4.0 or 5.0mm	
Facing material:	Mica - 0.5mm	
Facing density:	1 g/cm^3 (alternative 0.7g/cm^3)	
Max. temperature :	900ºC	
Max. pressure	>40 bar	
Suitability	For flanges to:	ASME B16.5, DIN standards, BS 10, JIS standards and custom designs

Style:	Description:
LA 1	Used for standard pipework. Lateral profiled joint with guide ring for raised and flat face applications
LA 2	Used for vessels and heat exchangers. Lateral profiled joint without guide ring for male and female, tongue and groove and grooved flanges
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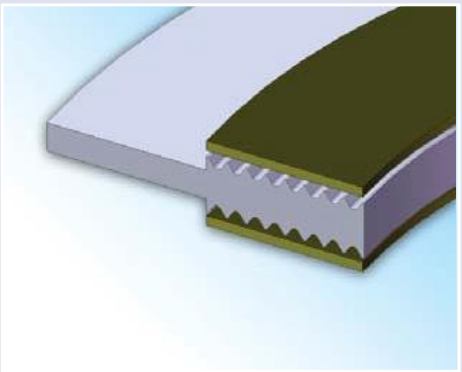
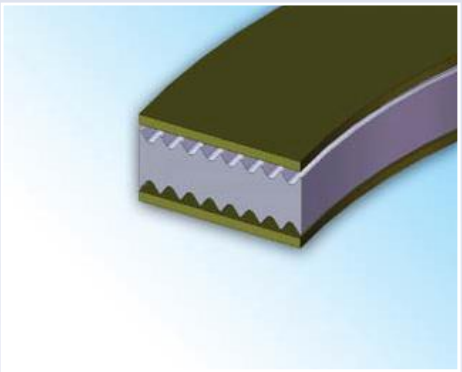
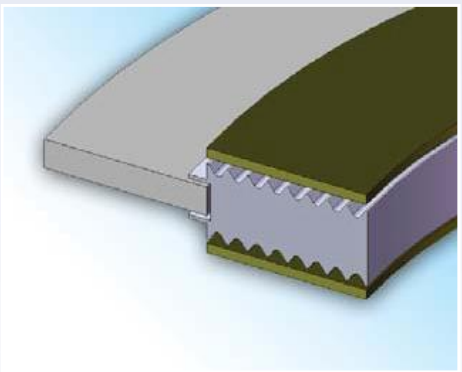


Maxitherm LA 1



Maxitherm LA 2



Maxitherm LA 3

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