

## ULTIMATE RING SEAL

Keramab's **Ultimate Ring Seals (URS)** are uniquely strong endless textile ring seals, that are specially designed for high temperature sealing and insulation.

### Advantages

The **URS** have an unprecedented high tensile strength. Also, the **URS** have a high density and a low compressibility. These properties can be changed on demand.



The **URS** are particularly suitable for applications where high temperatures, gas tightness, tensile strength and dimensional accuracy are involved. The typical and unique endless construction of the URS does not need glue, stitching or tapes. Thus avoiding the typical problems (nodules, inaccurate dimensions and weak spots where the ends are merged) seen when using conventional seals.

### Qualities

**URS** can be made out of various types of textile yarns: Ecomab<sup>®</sup> (body soluble fibres) 1200°C, Keramab<sup>®</sup> (refractory ceramic fibres) 1260°C, Ecosil<sup>®</sup> 1000 (silica fibres) 1000°C, Ecotex<sup>®</sup> 750 HT (HT-glass) 750°C and E-Glass 550°C. Other materials are available on request.

The **URS** are available with open or closed meshes. And can be made in round, square and rectangular section. The available sizes are in rope sections from 5 till 20 mm. The diameter of the ring can go up to 800 mm. Special sizes can be made on demand.

To improve the properties like gas tightness, anti-stick behaviour and resistance against chemical attack, the URS can be coated and/or impregnated with vermiculite, silicone, PTFE, graphite and various other impregnations and coatings according to customer's demand.

### **Applications:**

- Seals in heat exchangers
- Seals between boiler and chimney
- Seals in filter elements
- Seals in boiler burners
- Seals between heating appliances segments
- Seals for (non)ferrous moulds and dams

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## Material overview

	Continuous Use Limit (*)	Melting Point	Density	Basic Composition
Keramab®	1260°C	1790°C	500 – 900 kg/m <sup>3</sup>	Alumina-Silica
Ecomab®	1200°C	> 1330°C	500 – 900 kg/m <sup>3</sup>	Silica-Calcium
Ecosil® 1000	1000°C	> 1550°C	750 – 1100 kg/m <sup>3</sup>	Silica
Ecotex® 750 HT	750°C	840°C	750 – 1100 kg/m <sup>3</sup>	Silica
E-Glass	550°C	840°C	750 – 1100 kg/m <sup>3</sup>	Silica

	Continuous Use Limit (*)
Vermiculite	1100°C
Silicone	280°C
PTFE	250°C
Graphite	450°C

(\*) Keramab's Ultimate Ring Seals (URS) can be made out of various types of textile yarns with several coatings. Therefore the maximum use limit depends on the exact composition of the seal.