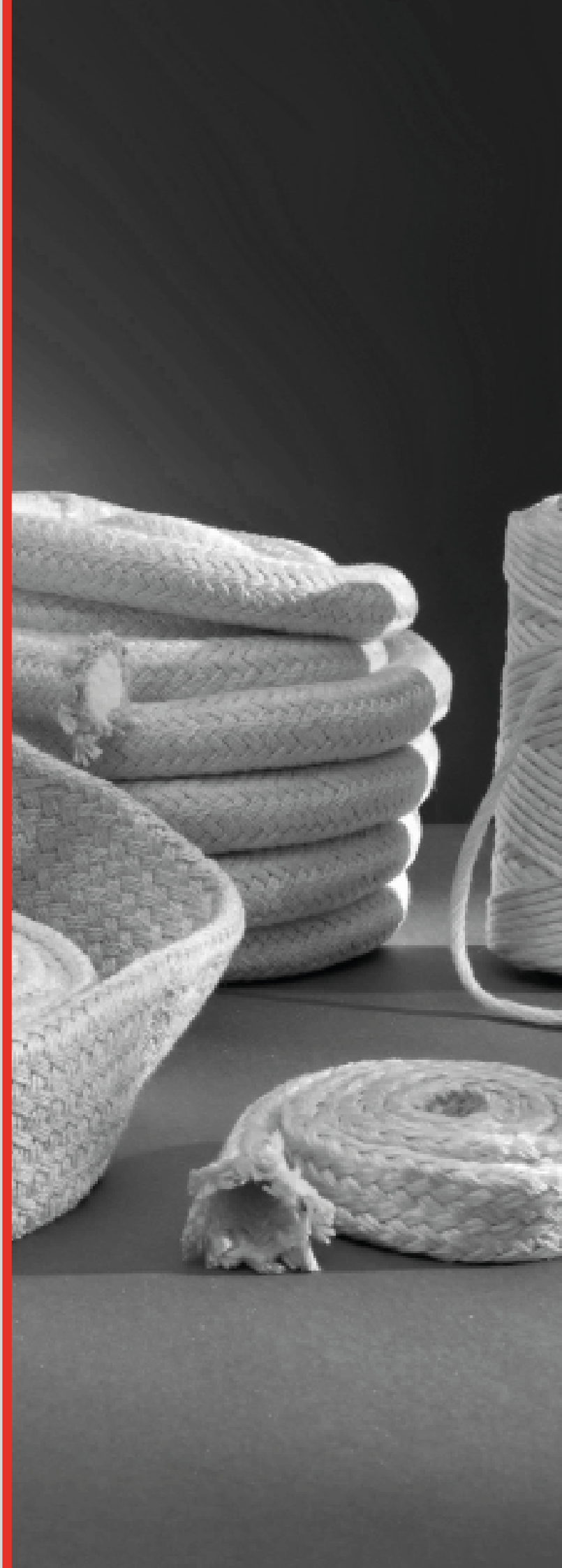
HIGH TEMPERATURE TEXTILE PRODUCTS



INSULCON

LEADER IN HIGH TEMPERATURE SOLUTIONS

INTRODUCTION

The Insulcon Group is the leading European manufacturer and supplier of high temperature textile products. In our own production facilities a wide range of heat resistant insulation- and sealing materials are being custom made, such as twisted ropes, fibre ropes, braided and knitted packings and sleevings, woven and knitted tapes as well as fabrics.

Next to high temperature textile products, the Insulcon Group also manufactures an extensive range of refractory materials with high thermal insulation properties and/or chemical- and wear resistance, such as hard and soft refractories, special ceramics, insulating firebricks, etc. Most of our products are available from stock and/or can be manufactured to customers' specification.

We aim to supply our customers with tailor-made, high quality products and services specially designed to suit the specific usage of our customers. We highly value quality, reliability and problem solving. We think along with the customer to engineer a sustainable solution that ensures safety, saves energy and reduces CO_2 emissions.

HIGH TEMPERATURE TEXTILE PRODUCTS

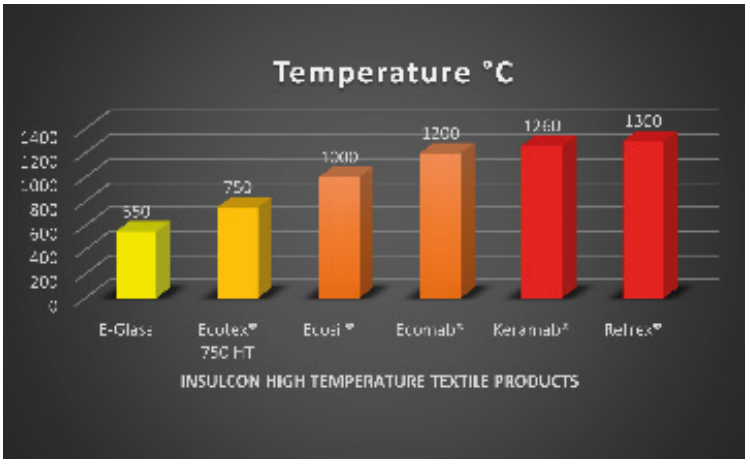
Our high temperature textile products are made out of different types of raw materials, such as glass fibres, body soluble fibres, ceramic fibres, etc. Our raw materials can be divided into two categories: continuous filament fibres and discontinuous fibres.

Continuous filament fibres:

- E-Glass fibre 550°C
- Ecotex® 750 HT glass fibre 750°C
- Ecosil® Silica fibre 1000°C
- Refrex® textile 1300°C

Discontinuous fibres:

- Ecomab® body soluble fibre 1200°C
- Keramab® ceramic fibre 1260°C



All our Keramab® and Ecomab® products are reinforced with glass- (650°C) or metal wire (1050°C). Next to the above-mentioned materials, other raw materials such as Basalt or Silica staple fibers, are also used in our production process.

From these different types of raw materials, a complete range of industrial textile products are being manufactured, using the latest state of the art technology in textile production. Our production facilities apply the following textile technologies; carding, spinning, stitching, twining, texturizing, twisting, braiding, overbraiding, weaving and knitting.

TECHNICAL TEXTILES & SEALING MATERIALS

- **Fabrics and Woven Tapes**

Our fabrics and woven tapes are available in a wide range of qualities, thicknesses, widths and in different kinds of weaving (flat, diagonal, multilayer, tubular textures). They can also be sewed in multi-layers. All our tapes can be supplied with a self-adhesive backing and/or with various special coatings.

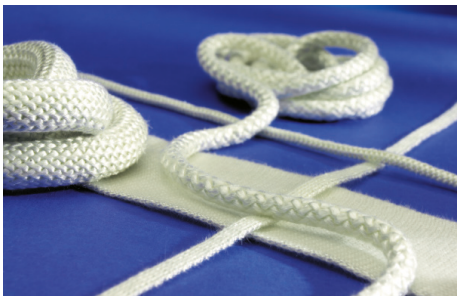
Ladder tapes are a type of tape that has regular perforations in the middle to produce a ladder like structure for easy installation around a.o. bolts.

- **Fibre Ropes and Joints**

Our Keramab® and Ecomab® fibre ropes and joints are sealing products composed of a soft core with an overbraiding (open or closed meshes). Keramab® and Ecomab® fibre ropes are reinforced with glass- (650°C) or metal wire (1050°C).
For those applications where wear resistance is of essence, we can supply our fibre ropes with a heavy duty overbraiding. An overbraiding with E-Glass, Ecotex® 750 HT or Silica yarns is also a possibility. In order to increase the mechanical resistance, the hardness and the density of the ropes, two or more outside braids can be made.

- **Twisted Ropes**

Our twisted ropes are available in several qualities and thicknesses. Twisted ropes are extremely flexible and soft insulating cords made by twisting multiple individual yarns together. The diameter of the rope is determined by the number and thickness of the yarns which are used.



- **Knitted Tapes**

For those applications where flexibility and resilience are of essence, we can also produce knitted (ladder) tapes. Knitted tapes are adapting perfectly to irregular surfaces and to the bending of carpentry. Our knitted tapes are available in several qualities, thicknesses and widths.

- **Packings and Sleevings**

In our assortment we have several qualities of knitted and braided packings and sleevings. Our knitted packings are produced by knitting several types of yarns into a round, flexible and soft rope. Braided packings are compact and resistant ropes, which are made in various sizes and sections, and are used as seals for doors of ovens, boilers and stoves. Our braided packings can be supplied in round, square and rectangular sections by braiding several types of yarns on a compact core of twisted or braided ropes.

For special purposes these packings can be impregnated with graphite, PTFE, siliconized and/or covered by a steel net or braid. Both also available in hollow sleevings.

SPECIAL PRODUCTS

Next to our technical textiles and sealing materials, we have other special products in our assortment that can also be manufactured to customers' specification. As we believe that no industry is the same, our specialists will partner up with you, to advice and engineer the best possible solution for your application. Furthermore, we offer special options like impregnating with PTFE, graphite and other coatings.

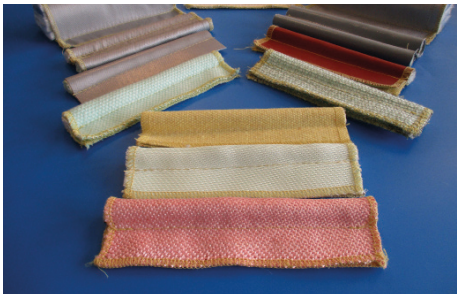
Our special products are:

- **Ultimate Ring Seal**

A unique strong, endless textile ring seal that is particularly suitable for applications where high temperatures, gas tightness, tensile strength and dimensional accuracy are involved. Ultimate Ring Seals can be made out of E-Glass textile yarns and Ecotex® 750 HT textile yarns.

- **Golden Super® Rope**

A one-of-a-kind high temperature and mechanical resistant seal. Due to its high density, it can be used for applications where mechanical resistance is of high importance. Moreover, the special impregnation increases the temperature resistance and heat reflection, and improves the non-wetting and gas tightning roperties, which enhances the lifetime of the seal.

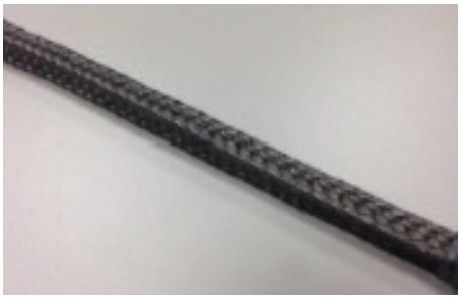


- **Tadpoles**

We are specialised in manufacturing high temperature resistant tadpoles which can be used as a seal in a wide range of applications, such as sealing kiln doors, inspection doors, around peepholes, etc. Tadpoles can be made out of many different materials, among others Refrex®.

- **STEELTEX**

STEELTEX textile products are crafted using special fibre yarns in AISI 316L stainless steel. This unique combination merges the outstanding technical properties of steel with the softness and flexibility of textile fibres. The result is products that offer excellent mechanical resistance, even at temperatures up to 650°C, and exceptional resistance to surface abrasion. These qualities make them ideal for various industrial applications, especially in the glass industry. STEELTEX is available in a square packing, round packing and tapes.



- **Blister Packaging**

We can manufacture tailor-made blister packagings with service items, perfectly suitable as door seals for stoves. We offer the possibility to supply the blisters in a packaging completely according to your design (private label), including the sealing rope and the special glue. Available in various lengths, thicknesses and colours.

APPLICATIONS

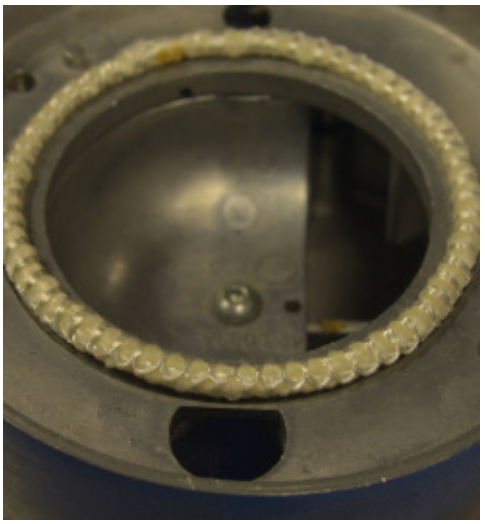
Our products are worldwide mostly applied as (door) seals in the domestic appliances industry, such as in boilers, wood-burning stoves, gas fired stoves, oil fired stoves, etc. However, there are many more industries where our high temperature textile products are applied. Below a few examples of applications:

Stove door seal
Domestic Appliances Industry

Kiln car seal
Ceramic Industry

Lid cover filling
Non-Ferrous Industry

Boiler door seal
Furnace Building Industry



Ultimate Ring Seal in a burner
Domestic Appliances Industry

Peephole door seal
Petrochemical Industry

INDUSTRIES

- Domestic Appliances Industry
- Ceramic Industry
- Aluminium and Non-Ferrous Industry
- Glass Industry
- Marine & Offshore
- Automotive Industry
- Power Generation
- And more...

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