High Temperature Specialists

Well-known in the industry for decades, Robco's High Temperature Division supplies high temperature resistant materials to maximize your operation’s efficiency and meet extreme conditions found in Oil & Gas, Petrochemical, Pulp & Paper, Mining, Metal Transformation, Power Generation and General Industry. Robco’s specialists take pride in the performance of our engineered products that allow you to work smarter.

Since 1911, Robco products are used everywhere in heavy industry as components of original equipment and in aftermarket maintenance and repair.

ISO 9001 and ISO 14001 Certified, our commitment to focusing on engineered solutions has fostered an alignment between our customers’ satisfaction and our success while caring for our environment.

Total Cost of Ownership

Our T.C.O. approach to problem-solving often results in our customers saving more than the acquisition cost of the products supplied.

Robco High Temperature Materials are manufactured at our Montreal, Quebec, Toronto and Independence (VA) facilities, thus ensuring unsurpassed quality control and quick turnaround times for our North American customers.

- Blankets
- Boards / Millboards
- Cloths / Fabrics
- Papers
- Ropes
- Sleevings
- Tapes
- Removable Covers
- Specialized Products
**BLANKETS**

**Robco 1200 Matting**
- Insulation weight during installation is an issue.
- Robco Silica Matting
- MIL-I-16411 Type II, MIL-I-24244, ASTM-C-1086-88

**Robco Insulute**
- Unique lightweight insulation used in removable pads for power generation, steam process, valves and piping where insulation weight during installation is an issue.
- Robco Q21 Ceramic Blanket
- Economical thermal insulation used as primary or secondary refractory insulation.
- Robco Q23 Ceramic Blanket
- General purpose thermal insulation for pads as primary and secondary refractory insulation.
- Robco Q26 Ceramic Blanket
- Extreme temperature thermal insulation for pads as primary and secondary refractory insulation.
- Robco Silica Matting
- Mechanically strong at elevated temperatures. Thermal and acoustic insulation, fire protection, heat shields, turbine wrap.
- Robco Treo™ - Biosoluble Blanket
- General purpose biosoluble thermal insulation for pads as primary and secondary refractory insulation.
- Robco Silica Matting
- Robco Q26 Ceramic Blanket

**GAUGE GLASS**

Max. Temp. Density Color Material

<table>
<thead>
<tr>
<th>Robco 1200 Matting</th>
<th>1200°F (648°C)</th>
<th>6-11 lb/cu ft (96-173kg/m³)</th>
<th>White</th>
<th>Long needed glass fibers. 100% recycled material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robco Q21 Ceramic Blanket</td>
<td>1100°F (593°C)</td>
<td>5.5 lb/cu ft (80kg/m³)</td>
<td>White</td>
<td>Glass fibers.</td>
</tr>
<tr>
<td>Robco Q23 Ceramic Blanket</td>
<td>2000°F (1093°C)</td>
<td>6, 8 lb/cu ft (96-128kg/m³)</td>
<td>White</td>
<td>Long glass fibers. Needled.</td>
</tr>
<tr>
<td>Robco Q26 Ceramic Blanket</td>
<td>2552°F (1400°C)</td>
<td>6, 8 lb/cu ft (96-128kg/m³)</td>
<td>Light grey</td>
<td>Vitreous silica fibre. 100% recycled materials.</td>
</tr>
<tr>
<td>Robco Treo™ - Biosoluble Blanket</td>
<td>1600°F (870°C)</td>
<td>8-11 lb/cu ft (128-176kg/m³)</td>
<td>Off White</td>
<td>Vitreous silica fibre and E-Glass. 100% recycled materials.</td>
</tr>
</tbody>
</table>

**GASS FABRICS**

Max. Temp. Weight Color Material

| Robco 2060 | 1000°F (538°C) | 6 oz/yd² (142 g/m²) | White | E-glass continuous multifilament |
| Robco 2175 Cloth | 1000°F (538°C) | 17.5 oz/yd² (595 g/m²) | White | E-glass continuous multifilament |
| Robco 2175 Navy Red Cloth | 1000°F (538°C) | 17.5 oz/yd² (595 g/m²) | Red | E-glass continuous multifilament |
| Robco 2240 Cloth | 1000°F (538°C) | 24 oz/yd² (814 g/m²) | White | E-glass continuous multifilament |
| Robco 2240 Aluminized Cloth | 1000°F (538°C) | 26 oz/yd² (882 g/m²) | Off White/silver | E-glass continuous multifilament, aluminium foil |
| Robco 2240 Cloth with PTFE Coating | 1325°F (718°C) | 26 oz/yd² (882 g/m²) | White to Off-White | E-glass continuous multifilament, PTFE Coating |
| Robco 2260 with High Temperature Treatment | 1000°F (538°C) | 36 oz/yd² (1220 g/m²) | White | E-glass continuous multifilament heat treated |
| Robco 2360 Cloth | 1000°F (538°C) | 20-100 oz/yd² (678-3390 g/m²) | Black | E-glass continuous multifilament with unique inert coating |
| Robco 3000C Series | 1000°F (538°C) | 20-100 oz/yd² (678-3390 g/m²) | Black | E-glass continuous multifilament with unique inert coating and silicone |
| Robco 3000CSB Series | 1000°F (538°C) | 20-100 oz/yd² (678-3390 g/m²) | Black | E-glass continuous multifilament with unique inert coating and silicone |
| Robco 3640 Cloth | 1000°F (538°C) | 64 oz/yd² (2170 g/m²) | White | E-glass continuous multifilament |

**COATED GLASS FABRICS**

Max. Temp. Weight Color Material

| Robco 3640 Cloth | 1000°F (538°C) | 64 oz/yd² (2170 g/m²) | White | E-glass continuous multifilament |
**GLASS FABRICS**

<table>
<thead>
<tr>
<th>Max. Temp.</th>
<th>Weight</th>
<th>Color</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>400°F (204°C)</td>
<td>70 oz/yd² (213 g/m²)</td>
<td>Ivory</td>
<td>Rubber coated E-Glass cloth - laminated for thicker versions</td>
</tr>
<tr>
<td>500°F (260°C)</td>
<td>72 oz/yd² (241 g/m²)</td>
<td>Ivory</td>
<td>Wire reinforced rubber coated E-Glass cloth - laminated for thicker versions</td>
</tr>
<tr>
<td>500°F (260°C)</td>
<td>17 oz/yd² (57 g/m²)</td>
<td>Silver</td>
<td>Silicone Coated &amp; Impregnated E-Glass Cloth</td>
</tr>
<tr>
<td>800°F (427°C)</td>
<td>18 oz/yd² (61.3 g/m²)</td>
<td>Grey</td>
<td>Silicone Coated E-Glass Welding Cloth</td>
</tr>
<tr>
<td>800°F (427°C)</td>
<td>32 oz/yd² (108.5 g/m²)</td>
<td>Grey</td>
<td>Silicone Coated E-Glass Welding Cloth</td>
</tr>
<tr>
<td>600°F (315°C)</td>
<td>14 oz/yd² (47.5 g/m²)</td>
<td>Grey</td>
<td>PTFE Coated &amp; Impregnated E-Glass Cloth</td>
</tr>
<tr>
<td>550°F (288°C)</td>
<td>17 oz/yd² (57.6 g/m²)</td>
<td>Grey or Aluminum Other colors available</td>
<td>PTFE Coated &amp; Impregnated E-Glass Cloth</td>
</tr>
<tr>
<td>550°F (288°C)</td>
<td>18 oz/yd² (61.0 g/m²)</td>
<td>Grey</td>
<td>PTFE Coated &amp; Impregnated E-Glass Cloth</td>
</tr>
<tr>
<td>1000°F (538°C)</td>
<td>18 oz/yd² (61.0 g/m²)</td>
<td>Gold</td>
<td>Vermiculite Coated E-Glass Cloth</td>
</tr>
<tr>
<td>1000°F (538°C)</td>
<td>35 oz/yd² (118.7 g/m²)</td>
<td>Gold</td>
<td>Vermiculite Coated E-Glass Cloth</td>
</tr>
</tbody>
</table>

**BOARDS AND PAPERS**

<table>
<thead>
<tr>
<th>Max. Temp.</th>
<th>Weight</th>
<th>Color</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1810°F (1000°C)</td>
<td>60 lb/ft³ (0.96 g/cm³)</td>
<td>Beige</td>
<td>Mineral wool fibre, inert fillers</td>
</tr>
<tr>
<td>1810°F (1000°C)</td>
<td>62.3 lb/ft³ (1 g/cm³)</td>
<td>Beige</td>
<td>Mineral wool fibre, inert fillers, coating</td>
</tr>
<tr>
<td>1925°F (1052°C)</td>
<td>14 - 22 lb/ft³ (0.23 - 0.35 g/cm³)</td>
<td>Beige</td>
<td>Ceramic Fibers, Binding Materials</td>
</tr>
<tr>
<td>2300°F (1260°C)</td>
<td>14 - 22 lb/ft³ (0.23 - 0.35 g/cm³)</td>
<td>Beige</td>
<td>Ceramic Fibers, Binding Materials</td>
</tr>
<tr>
<td>1850°F (1010°C)</td>
<td>11 lb/ft³ (0.18 g/cm³)</td>
<td>White</td>
<td>Ceramic Fibers, Binding Materials</td>
</tr>
<tr>
<td>2300°F (1260°C)</td>
<td>12.5 lb/ft³ (0.20 g/cm³)</td>
<td>White</td>
<td>Ceramic Fibers, Binding Materials</td>
</tr>
<tr>
<td>1800°F (982°C)</td>
<td>0.05 - 0.1 lb/ft³ (250 - 480)</td>
<td>Greenish</td>
<td>Phlogopite mica, silicone binder</td>
</tr>
<tr>
<td>1292°F (705°C)</td>
<td>137 - 143 lb/ft³ (2.2 - 2.3 g/cm³)</td>
<td>Grey</td>
<td>Greenish</td>
</tr>
<tr>
<td>932°F (506°C)</td>
<td>134 lb/ft³ (2.15 g/cm³)</td>
<td>Grey</td>
<td>Muscovite mica, bonding material</td>
</tr>
<tr>
<td>1000°F (538°C)</td>
<td>100 lb/ft³ (1.6 g/cm³)</td>
<td>Grey</td>
<td>Vitreous silicate fibre, Aluminum foil</td>
</tr>
</tbody>
</table>

**Robco 700 Millboard**
High density board with fire resistance, used as high temperature insulating plates, thermal barrier for crucibles, gaskets, insulation for boiler or furnace doors, etc.

**Robco 720 Millboard**
Economical board with fire resistance, used as high temperature insulating plates, thermal barrier for crucibles, insulation for boiler or furnace doors, etc.

**Robco Ceramic Board 805**
Economical semi-rigid insulation. Ideal for use as high temperature/low pressure gaskets. Low thermal conductivity and homogeneous density.

**Robco Ceramic Board 806**
Semi-rigid insulation. Ideal for use as high temperature/low pressure gaskets. Low thermal conductivity and homogeneous density.

**Robco Ceramic Paper 630**
Economical soft insulation material also used for high temp and low pressure gasketing. Fair thermal conductivity.

**Robco Ceramic Paper 990**
Soft insulation material also used for high temperature and low pressure gasketing. Low thermal conductivity.

**Robco Mica Slip-Plane**
Rigid sheet refractory separator for coilless induction furnaces. Acts as electrical and thermal insulator, vapor-barrier and protects coil from overheating. Enables easy push-out of refractory. Various grades available, including with liners.

**Robco Mica Phlogopite**
The best choice for shunting, refractory separator and insulation foil. Its resilience is useful for some applications. Meets: IEC 371-3, VDE 0332 / DIN 40612 – FLK

**Robco Mica Plate M**
Press Insulation between Platens and Die. Thermal and Electrical Insulators. Replaces Asbestos Cement Plates.

**Transite HT**
An economical liner for core, drying and carrying plates, induction furnaces, casings, busbar supports, electrode arm insulation. Used as load bearing gaskets, spacers, supports and machined parts for OEM applications.
**ROPE**

- **Robco 273 Rope**
  - Medium density packing rope for doors on wood stoves, industrial ovens and boilers as well as tadpole tape core.
- **Robco 280 Biosoluble fiber**
  - Specialty rope designed to provide sealing during rodding of cathodes with collector bars.
- **Robco 290 Crucible Lid Seal**
  - Custom-made for crucible lid covers found in the aluminum industry. This dense packing rope can incorporate various elastomeric core, Inconel wire reinforcement as well as surface mineral coatings to enhance resiliency, sealability and resistance to outside elements.
- **Robco 290 Series Ropes**
  - Heavy duty packing rope for coke batteries, goose necks, tapping crucible seal.
- **Robco 350-D Rope (Tight Knit)**
  - Economical packing rope for doors on wood stoves, industrial ovens and boilers as well as tadpole tape core.
- **Robco 350-S Rope (Loose Knit)**
  - Economical packing rope for doors on wood stoves, industrial ovens and boilers as well as tadpole tape core.
- **Robco 78 Glass Lagging Rope**
  - Consists of HT fibers assembled with an open braided jacket used for lining steam lines.
- **Robco Ceramic Ropes (274 Twisted, 275 Round or Square)**
  - High temperature gasketing and packing for boilers and furnaces. Used as tadpole seal core. Also available with wire Inconel wire insertion.
- **Poly / Fiberglass Knitted Rope**
  - Braided specifically to attach removable pad covers exposed to outside elements.
- **Silica Twisted and Braided Ropes**
  - Packing for high temperature sealing applications; such as tadpole tape cores, furnace door gaskets, high temperature caulking, and coke oven door seals.

**SILICA / CERAMIC FABRICS**

<table>
<thead>
<tr>
<th>Max. Temp.</th>
<th>Weight</th>
<th>Color</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000ºF (1649ºC) Continuous</td>
<td>18-36 oz/yd² (610-1221 g/m²)</td>
<td>Tan</td>
<td>96% minimum Silica</td>
</tr>
<tr>
<td>3000ºF (1649ºC) Continuous</td>
<td>21-39 oz/yd² (712-1332 g/m²)</td>
<td>Silver / Tan</td>
<td>Silica cloth, Mylar aluminized</td>
</tr>
<tr>
<td>1200ºF (204ºC)</td>
<td>44-46 oz/yd² (1485-1560 g/m²)</td>
<td>White</td>
<td>Spun ceramic fiber onto Glass or Inconel carrier</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Max. Temp.</th>
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<th>Color</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>600ºF (315ºC)</td>
<td>41 oz/yd² (1380 g/m²)</td>
<td>Tan</td>
<td>Heavy E-Glass saturated, coated and laminated with specially Perfluoroplastic</td>
</tr>
<tr>
<td>500ºF (260ºC)</td>
<td>34 oz/yd² (1153 g/m²)</td>
<td>Blue / Gray</td>
<td>100% PTFE film</td>
</tr>
<tr>
<td>400ºF (204ºC)</td>
<td>22 oz/yd² (746 g/m²)</td>
<td>Yellow</td>
<td>Kevlar/Nomex yarn,E-Glass, aluminized mylar</td>
</tr>
<tr>
<td>400ºF (204ºC)</td>
<td>17 oz/yd² (576 g/m²)</td>
<td>Silver and Yellow</td>
<td>Kevlar/Nomex yarns,E-Glass, aluminized mylar</td>
</tr>
<tr>
<td>400ºF (204ºC)</td>
<td>10 oz/yd² (339 g/m²)</td>
<td>Yellow</td>
<td>Perfluoroplastic / Kevlar composite</td>
</tr>
<tr>
<td>1000ºF (538ºC)</td>
<td>101 oz/yd² (3425 g/m²)</td>
<td>Beige</td>
<td>E-Glass insulation &amp; fabric - heavy PTFE</td>
</tr>
</tbody>
</table>

**SPECIALIZED FABRICS**

- **Robco CLT 9704-2F (for expansion joints)**
  - Laminated coated fabric specifically for expansion joint belts. Heavy coating and film provide outstanding chemical resistance.
- **Robco EJTM12**
  - 100% PTFE film provides outstanding flexing and chemical resistance for expansion joints, removable pad covers, tubing and steam lines.
- **Robco Kevlar®/Nomex® Cloth**
  - High abrasion resistant cloth for piping, jacketing, flexible gaskets where high heat and mechanical strength is needed.
- **Robco Kevlar®/Nomex® Cloth Aluminized**
  - High abrasion resistant cloth used in protective clothing such as gloves, mittens, pants, and jackets.
- **Robco Perfluoroplastic Coated Kevlar® Fabric**
  - Material of choice where durable, impermeable, flexible fabric is required for expansion joint belts, tadpole tapes and other applications where high mechanical strength is needed.
- **Robco 50-1406**
  - Heavy PTFE coated expansion joint belt glass fabric laminated with insulation mat for applications requiring an upper use continuous temperature of 1000ºF.
High Temp. Resistant Materials

**SPECIALIZED FABRICS**

- **RobcoGuard Plastic Flame-Resistant Protection**
  - Temporary protection for all types of indoor and outdoor finishes such as walls, paneling, bulkheads and doors. Also useful for protecting large objects and large furniture.

- **RobcoGuard Floor**
  - Temporary protection of carpet, vinyl, lino, screwed, wood, steel, pored resin floors, walkways, open areas, weather decks, flight decks, pillars, bulkheads cabins and control rooms.

- **Robco Knitted Wire Insulation Mesh**
  - Ideal for fabricating removable and reusable insulation blankets for thermal insulation systems. Excellent for marine, aerospace, industrial, and commercial pad construction.

**FABRICATED PRODUCTS**

- **Robco Larry Car Seal**
  - Superior specialty gas seal used mostly on coke batteries and homogenizing furnaces where durability is essential.

- **Robco Waste Gas Boots**
  - Flexible connectors operating at extreme temperatures, especially on anode baking pits.

- **Robco Enviropak B.O.P. Ram Seal**
  - High pressure sealing component for use in blow out preventers using steam injection during oil extraction.

- **Robco Tadpole Tapes**
  - Used to seal oven doors or furnaces, where thermal conditions are elevated while pressures are minimal.

- **Robco 1000 Braided Slewing**
  - Economical protection for hydraulic hoses and electric cables, steam tracer wrap, covering for glass handling equipment.

- **Robco 1010 Knitted Tubing**
  - Economical extra flexible protection for hydraulic hoses and electric cables, steam tracer wrap, covering for glass handling equipment.

**TAPES AND TUBINGS**

- **Robco I180 & F120 Ceramic Tapes**
  - Extreme temperature insulation tape used as gasket and wrapping material. Main uses include: furnace coil insulation, cable and wire insulation, infrared radiating diffusers, "mop style" curtains.

- **Robco GW-Series Fiberglass Tape**
  - Used as low pressure/high temperature gasket on thin flanges as well as wrapping of pipes, odd shapes, etc. where high temperature is an issue.

- **Robco Silica Slewing**
  - Molten metal resistant flexible slewing for protection for pneumatic and hydraulic hose covering and electric cable protection.

- **Robco Silicone Coated Fiberglass Slewing**
  - Impervious Silicone coating prevents fluid absorption. High-temperature protection for pneumatic and hydraulic hose covering and electric cable protection.

- **Robco Woven Silica Tapes**
  - Extreme heat insulation or thermal protection; Power generation, furnace, shipbuilding, construction, welding and metal processing industries. Also used as ‘mop style’ furnace curtains, furnace door gasketing and high temperature seals.

**ROPES**

- **Robco 267 with PTFE**
  - As requested

- **Robco 267 with PTFE**
  - 0.015" - 0.125" ID

- **Robco 267 with PTFE**
  - 0.125" - 0.25" ID

- **Robco 267 with PTFE**
  - 0.25" - 0.5" OD

- **Robco 267 with PTFE**
  - 0.5" - 1" OD

**TAPES AND TUBINGS**
Robco High Temperature Materials for Heavy Industry

We believe that the best way we can support our customers is by saving energy while protecting personnel, equipment and avoiding injuries: Robco High Temperature Resistant Materials.

Manufacturing Capability

We’re ready! We invest in state-of-the-art equipment to produce quality parts at the best possible cost: whether in the fabrication of small batches of intricate parts or large volume production.

Engineering Group

You’re looking for the best possible life cycle-cost for your applications; we develop custom products to achieve exactly this. Helping our customers is what makes our job fun! We test, reverse-engineer and develop products that will meet your needs.

Implicit Industry Knowledge

Time flies! 100 years in business means a lot of experience under our belt through implicit industry knowledge. The culture of supporting our customers with products that provide value remains intact. You are in good hands with us!

Fabrics, Ropes, Sleevings and Tapes

Available in a choice of thicknesses, grades, weaves, coatings and densities. Fabrics are mostly used as heat shield during welding operations or molten metal works. Ropes and Tapes are manufactured as HT gasket applications, on furnaces, tapping crucibles, etc.

Blankets, Boards and Papers

Available in a range of thicknesses, grades and densities. Engineered to insulate / seal the highest temperatures found in heavy industry from 500ºC to 1650ºC (900ºF to 3000ºF). Robco manufactures blankets using a unique, patented process. Cut to size parts available.

Removable Insulating Covers

Robco is the sole vertically-integrated manufacturer of HT removable insulation in Canada. We produce the lightest, most efficient pads on the market, thanks to our unique insulation blankets. All parts custom-made to your requirements to save energy, protect your personnel and reduce thermal exposure in enclosed areas.

Robco is one of the very few companies in the world that both specializes in fluid sealing components and heat resistant materials, bringing an unequal expertise at your service. Our engineers will identify the optimal product for your applications.

Expert Customer Service

Our on-site technicians, high temperature materials and Customer Service departments are available to guide you and answer all your questions in the selection of the ideal product for your application.