



Australian Owned and Operated

Fire Protection & Insulation Solutions





"Your Problem, Our Solution"



Darco Industries offers a wide range of high quality thermal insulation fabrics and accessories for a multitude of industrial equipment & applications. Our team helps fabricators engineer material systems solutions designed to suit specific chemical and physical environments

Who we are

Darco Industries is an import/wholesale business established in July 2010 by James Dar BSc who has technical sales experience since 1980. Since 1998 his time has specifically been with high temperature textiles and advanced industrial insulation materials.

Our success is primarily based on fostering competent trust with customers and suppliers. We have long established relationships with the worlds leading glass textile suppliers and core clients spread around Australia and overseas. Darco Industries strive to improve our product range and services by supplying our customers with cost effective, engineered material system solutions

We understand the properties of our materials and suitability for the various applications where physical and chemical factors like temperature, abrasion, vibration, tensile strength, thermal conductivity, UV, fire ratings, sound absorption, chemical resistance, liquid and vapour permeability etc.

The Darco Advantage

Darco Industries is Australia's leading importer and wholesaler of the widest range of specialist thermal insulation and fire protection glass textiles and accessories. Based in Perth, Western Australia, our customer focused staff has a proven record of being very responsive to customer needs and special testing demands. Our client base is worldwide and consists of the automotive OEM's, heavy-duty engine OEM's, industrial suppliers and hydraulic companies. Darco is a leading provider of quality and thermal insulation solutions serving a wide range of industries around the world. From industrial to commercial, aeronautical to marine, Darco Industries are dedicated to adding value to fabricators products and processes, supporting their success in the global marketplace. Darco has the expertise, resources and global reach to support its clients through its extensive network of leading manufacturers and suppliers worldwide.



For more information see https://www.darco.com.au/about_us



"Your Global Solutions Experts"

Whilst we import products that are certified from renowned suppliers around the world we still carry out our own quality control which includes inspecting and testing samples for various properties from each imported batch



"One stop shop for thermal insulation glass textiles, accessories and more"



Core Products

MATERIALS FOR FABRICATED INSULATION JACKETING, FLEX CONNECTORS, THERMAL SEALS

- Fabrics Assorted high temperature E glass, silica glass and ceramic fibre fabrics and infill needled mats.
- Stainless steel Mesh, Capstan
- Fasteners Springs, Lacing Hooks & Washers, Tie Wire, Pneumatic staplers, and fixings.
- Sewing Threads Fiberglass, Kevlar covered Stainless Steel.

WELDING BLANKETS & SCREENS

- Assorted Glass Fabric Blankets Standard sizes 0.9m x 1.8m and 1.8m x 1.8m.
- Plastic Welding Screens. Choice of Red and Green in sizes 1.8m x 1.8m and 1.8m x 2.4m
- Other sizes manufactured to specification
- Welding Frames 1.8m x 1.8m

FIRE PROTECTION (CERTIFIED)

- Global Solutions Fire blankets certified for Oil & Gas Industry etc. (see <u>www.global-ww.com</u>)
- Fire & Smoke Barrier Curtain Fabrics
- Fire Sleeves for hose & cable protection
- Navy Board Facing Fabric.

THERMAL & ACOUSTIC INSULATION

We are also distributors for:

- Ceramic Fibre and soluble fibre blankets, boards, papers etc.
- Calcium Silicate 650°C, 800°C, & 1000°C
- Boards, Pipe sections, Superplastic Castable Cement & AC1 Protective Coating
- Rockwool to 750°C & Glass wool to 480°C Blanket, Board, Pipe section
- Noise absorbers and barriers for commercial and industrial applications.
- Foams, Loaded Vinyls & Composites
- Quiet Acoustics structural noise control panels for industrial and commercial applications.



"Your Global Solutions Experts"







High temperature fabrics play a big part in Industry and we carry a large range of fabrics to suit all situations. The Darco team is trained and understands the technical capabilities of each of its products and will guide you in terms of the suitability of a particular recommended product for its application in terms of technical (physical, chemical, UV, heat resistance, permeability, etc.) properties

High Temperature Glass Textile Range

Coated E-Glass Fabrics

- Teflon
- Silicone
- Polyurethane
- Graphite
- Wire Reinforced Fabrics
- Neoprene
- Vermiculite

Heat Treated Fabrics

- Vermiculite Coated
- Non-coated (Plain)

Laminated Fabrics

- Aluminium Foil Faced Fabrics
- Mylar Faced Fabrics
- Stainless Steel Faced Fabrics

Silica Fabrics

- Vermiculite Coated Silica Fabrics
 - PU Coated Silica Fabrics

Ceramic Fibre Fabric

- High quality ceramic fibre
- Stainless Steel wire reinforced

Needlemat

- Silica Needlemat
- E-Glass Needlemat

Loomstate

Loomstate Fabric

Fiberglass Scrim

- High tensile strength
- High temperature
- Corrosion resistant
- Reinforcement material



Datasheets are available on all our products

For more information see https://www.darco.com.au/high_temperature_glass_fabrics

Contact us at: sales2@darco.com.au or call: +61 8 9418 8826

"Widest range of thermal insulation glass textiles in Australia"



"Engineered Material System Solutions"



How are they installed?

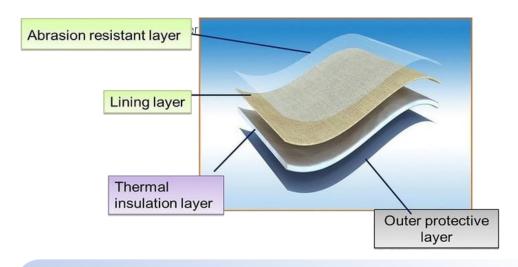
Removable insulation covers are wrapped around the part to be insulated. The blankets are then fastened in place using lacing wire. Other fastening options, while less versatile, do exist, including snaps, straps, springs, and Velcro.

We can best help you by working with you to solve your thermal and acoustic insulation application problems most cost effectively. Given the essential application conditions such as physical environment of temperature, weather, UV, tension, abrasion, vibration and chemical, we can suggest appropriate combinations of materials to achieve the optimum cost effective system to suit your applications. **Removable reusable insulation covers** are used to insulate engine parts, exhaust piping, components, industrial process piping and machinery. Applications which use diesel engines, such as power generation, commercial transport and marine vessels often require insulation covers to manage the heat they generate

How are they made?

Removable insulation covers are generally constructed in 3 layers. However certain applications may require alternative construction methods, in the case of sound or fluid barriers, an extra layer may be added In some cases the stainless steel inner liner may be replaced by a fiber-containing material, where fiber containment is a requirement. For more demanding and unique applications Darco offers a wide range of alternative materials and construction.

Layers		Material	Temperature Limit Function
Inner	٠	Stainless Steel Mesh	1,000° C (1,800° F) Abrasion protection
Liner	•	E glass fabric	550° C (1,022° F) Encapsulate infill insulation
	•	Silica fabric	1200° C (2,192° F)
Infill	٠	E glass (long fibre)	650° C (1,202° F)
	•	CMS Wool (Short fibre)	Insulation – long fibre more resilient for handling and vibration while short fibre
	•	Silica Glass (Long fibre)	more suited for static applicatins.
Outer	•	Silicone Impregnated Fiberglass	550° C (1,022° F)
	٠	Silica Glass	1,200° C (2,192° F)



For more information see <u>https://www.darco.com.au/thermal_acoustic_insulation</u>



"Comprehensive range of Fasteners and accessories"









Production of insulation jackets, sleeves, socks, mattresses, expansion joints and more, a selection of hooks, washers, staples, quilting fasteners, lacing hook sets and buckles are used. These are made of stainless steel, nickel or brass (lacing hooks) to ensure durable and corrosion-free performance

Insulation Fasteners

The Lacing anchor is a key accessory used in the fabrication of lacing blankets or removable blankets. They are essentially large nails with hooked heads consisting of a pin and a tabbed or hooked washer. Stainless steel is the more popular material it is manufactured from, but it's also available in mild steel. Stamped "no ab" to denote "no asbestos", the tab head is 7/8" in diameter. The nail portion can be 12 gauge or 14 gauge in diameter. During blanket fabrication, an anchor is pushed through the front of a blanket so that the hooked head is snug against it. Darco has several sizes and wire gauges available

Darco Code	Description
SSLA/63/C	Chinese 304 S/S Lacing Anchor 1.63mm dia. (14GA) x 63mm - Heavy Duty (1000 per pack)
SSLAW/65/S	304 S/S Lacing Anchor 1.63mm dia. (14GA) x 65mm with Speed Washer - Square Head Extra Heavy Duty (1000 per pack)
SSQP/63/C	304 S/S Quilting Pin, 1.63mm dia. (14GA) x 63mm (1000 per pack)
SSD25/304	25mm 304 S/S "D" Ring Buckle (1000 per pack)
TBRTHLH/1000/H	Brass wire lacing hook (1000 per pack) - For type "H" Tacker
TSSTHLH/1000/H	304 S/S 2 Hole lacing hook (1000 per pack) - <i>For type "H"</i> <i>Tacker</i>
TSSTHLH/3000/T	304 S/S 2 Hole lacing hook (3000 per pack) (Larger Holes) - For type "T" Tacker
SSTH/LH	ACS 304S/S lacing hook 12GA with 2 holes (1000 per pack)
DOMCAP	ACS Dome Cap Aluminium/Stainless Steel - For 1.63mm dia (14GA) pin (1000 per pack)
CAPSTAN	Capstan Rivet, 302 HQ S/S (Better than 304 S/S for capstans) (1000 per pack)
CAPSTAN-WL	Washer 5 x 20 x 0.75 mm. 2 per capstan (1000 per pack)
TSSTHLW/H	304 S/S two hole lacing washer (1000 per pack) - <i>For type "H" Tacker</i>
TSSTHLW/T	304 S/S two hole lacing washer (Larger Holes) (1000 per pack) - <i>For type "T" Tacker</i>
SSTHLW	ACS 304 S/S lacing hook 12GA with 2 holes (1000 per pack)
SSW/25	304 S/S Lacing Speed Washer <i>For</i> 1.63mm dia (14GA) pin, 25mm diameter (1000 per pack)
SS/SPRING/304	304 S/S Spring Fastener with Large Ring (1,000 per pack)

For more information see https://www.darco.com.au/fabrication accessories



"Widest range of safety welding blankets, screens & more in Australia" Darco welding blankets are made from premium fibreglass woven fabrics and leather variants, specially treated on both sides. The blankets are suitable for welding, grinding spark and spatter protection for equipment, component and personal protection

Safety Welding Blankets, Screens and more!

A welding blanket is a piece of safety equipment designed to protect equipment and the welder while welding. A welding blanket typically consists of a layer of flexible protective material containing unexpanded vermiculite and inorganic heat resistant fibrous material. When contacted by spatter of molten metal during a welding process the material protects the surrounding areas by maintaining the structural integrity of the blanket. Many modern welding blankets are made of flame retardant fiberglass and can stand working temperatures ranging from 150°C to 1,400°C

Darco Code	Description
DLWB22	Chrome Leather Welding Blanket with Eyelets 1.8m x 1.8m
DLWB32	Chrome Leather Welding Blanket with Eyelets 3m x 2m
DLWB33	Chrome Leather Welding Blanket with Eyelets 3m x 3m
DEWBV21	VERMICULITE with eyelets DEF1200V 1.8m x 0.9m
DEWBV22	VERMICULITE with eyelets DEF1200V 1.8m x 1.8m
DEWBFH21	HT Filament DEF1700HT 1.8m x 0.9m
DEWBFH22	HT Filament DEF1700HT 1.8m x 1.8m
DEWBHT21	HT With Eyelets DEF1150HT 1.8m x 0.9m
DEWBHT22	HT With Eyelets DEF1150HT 1.8m x 1.8m
DEWBN21	NEOPRENE COATED with eyelets DEF1080N 1.8m x 0.9m
DEWBN22	NEOPRENE COATED with eyelets DEF1080N 1.8m x 1.8m
DSWBH21	Silica Fabric DSF1200CV 1.8m x 0.9m
DSWBH22	Silica Fabric DSF1200CV 1.8m x 1.7m





For more information see <u>https://www.darco.com.au/safety_welding_protection</u>

Contact us at: sales2@darco.com.au or call: +61 8 9418 8826





The fact that exhausts often pass near important components means protecting these components from heat soak, is especially important. As a result, heat shields, exhaust wraps and firesleeves are used as a way of reflecting, dissipating or simply absorbing the heat.

Heat & Noise Shield

Due to the large amounts of heat given off by internal combustion engines, heat shields are used on most engines to protect components and body- work from heat damage. As well as protection effective heat shields can give a performance benefit by reducing the under-bonnet temperatures, therefore reducing the intake temperature. Heat shields can be cut and fit-ted to any specification.

Exhaust Heat Wrap

Exhaust heat wrapping has been used for many years to improve performance and avoid burns from motorcycle exhausts. Heat wrap consists of a high-temperature synthetic fabric which is wrapped around the manifold. Often sold as a cheap and easy way to boost horsepower, exhaust wrap does not increase engine output much. It can decrease engine bay temperatures and increase exhaust velocity, lower intake air temperature and therefore increased air density, which may result in an increase in efficiency and power. Hotter exhaust gases travel faster which may reduce turbo lag and improve exhaust gas scavenging.

Firesleeves

Firesleeve (Silicone Coated Fibreglass Sleeve) protects hydraulic hoses, cables and wires. from molten metal splash, high heat hazards and occasional exposure to flame, in steel plants, glass plants, foundries, cutting and welding shops and wherever hoses, cables and wires

Emergency Repair Tape

It is a non-adhesive and only bonds to self, extremely versatile silicone tape. It conforms to irregular shapes and forms a permanent air-tight & water-tight seals in seconds. It's used in rescue and repair emergencies. may be exposed to high heat or occasional flame. Fireproof sleeve also may be used to insulate your race cars plumbing system. Continuous protection to 260°C and short term exposure through to 600°C It's extremely flexible and conformable ranging in sizes from 6mm – 120mm

It's resistant to weathering, salt water, UV rays, fuels, oils, acids, solvents, road salt and abrasion. It has a long life at outdoor. To ensure a consistently reliable product, we have used top quality silicone rubber.

For more information see <u>https://www.darco.com.au/automotive_insulation</u>



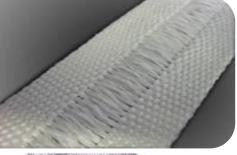


"Large range of automotive insulation and emergency repair tapes"

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Darco high temperature thermal seals include **E glass**, **Silica glass** and **Ceramic fibre** ropes, tapes and custom seals, are resistant to oils, solvents and most chemicals, but direct contact with live steam should be avoided

High temperature thermal seals

Applications

- Darco **DER series** fibreglass ropes are a non-asbestos product, manufactured from "E" Type highly texturised yarns, specially developed for high temperature applications, and have excellent handling characteristics. They are suitable for dry, static, sealing applications.
- Thermal and electrical insulation
 cores for tadpole tape
- cores for tadpo
- gaskets
- furnace and boiler door seals
- wood burning stove door seals

DLR - Very Soft Ceramic Fibre Lagging Round Rope - Compressible ~75%

DEKCR - Medium E glass Knitted Round Rope with Core - Compressible ~ 30%

DERM - Medium E Glass Rope FG Round with Soft Core - Compressible ~30%

DERD - Dense Hard core with braided sheath

DERSQ - Square Very hard core with braided sheath.

CFRxxx - Hard/Dense Tape

DELT - Ladder Tape

TADPOLE Tape - Made to order using our finest fabrics and ropes.

For more information please see https://www.darco.com.au/high_temperature_ropes

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"Comprehensive range of refractory and industrial insulation materials"



Darco's **Ceramic Fiber** 1260 and 1430 deg C grades and **Soluble fibre** (group products photo) **blankets**, **boards**, **batts**, **modules**, **paper**, **textiles** (**fabric**, **rope** and **tape**), accessories such as **fasteners**, Sila rigidizer, Silagrip cement, Silcoat Z zirconia coating. Alumina HT and Polycrystalline mullite fibre for very high temperatures 1600 and 1800 deg C grades available on indent as required.

Typical Applications

- Expansion joints
- Fire protection
- High temperature gasket
- Ingot mould liner
- Refractory back up insulation
- Heat shield and silencer insulation
- Molten metal splash and spark protection

For more information, talk to one of our friendly staff

All sectors of industrial DIY

Advantages

High temperature stability Low thermal conductivity Low heat storage Lightweight Excellent corrosion resistance Good dielectric strength Thermal shock resistance Easy to wrap, shape or cut







For more information see https://www.darco.com.au/refractories_insulation

Contact us at: sales2@darco.com.au or call: +61 8 9418 8826



Darco's growing stocked range of **Specialist Idustrial Insulation and Refractory** materials are highlighted below.

See https://www.darco.com.au/refractories_insulation for details.

Calcium Silicate Boards

- High temperature insulation 1100 deg C, 270 kg/m3 , 1000mm x 500mm x 50mm
- GF structural and fire grade 1000 deg C, 400 kg/m3, 1000mm x 500mm x 50mm

Insulation Fire Bricks

• IFB's Insulation fire bricks LBK26, 230 mm x 115 mm x 75 mm (carton of 8). Other grades of insulation fire bricks available on indent as required.

Fire Clay Bricks

• Dense Pressed, 40% alumina, 230 mmx 115 mm x 75 mm. Other grades of refractory fire bricks such as high alumina, Magnesia Carbon and MgC available on indent as required

Refractory Castables (Dense and insulation grades), Mortars, Adhesives, Coatings, Refractory Cement, Insulation Mouldable & Pumpable, Rigidizer etc in stock

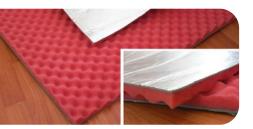
Aspen Aerogel Insulation Blankets

• Aspen Aerogel Pyrogel XT insulation blankets – for the ultimate space saving insulation rated up to 650°C.

Acoustic pipe insulation

Acoustic pipe insulation is an effective and easy-to-install sound lagging solution. Also
suitable for ducting and ventilation fans is available in rolls and as pre-cut 'flat packs'
for quick and easy installation







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