Pyrotek®

SPECIALTY PRODUCTS SUMMARY

ACOUSTIC AND THERMAL SOLUTIONS

ACOUSTIC AND THERMAL SOLUTIONS

oil and gas

- Metal fabrication & cladding
- Cryogenic insulation
- Flexible valve covers
- Condensation protection
- Acoustic and vapour barriers
- Covers and high temperature material
- Expansion joints

power generation

- Turnkey solutions for acoustic enclosures
- Custom fabricated removable thermal jacketing
- Acoustic louvre design and fabrication
- Vibration damping products
- On-site noise level testing
- Expansion joints

Pyrotek®

Pyrotek was established in 1956. Our high temperature and acoustic products are developed through innovation and understanding of market needs. Our advanced material expertise and product engineering knowledge provides product solutions for the most demanding applications. Our goal is to provide high quality products and services to all areas of industry and to be at the forefront of technology in product application and design. We are able to offer products to reduce noise and fire risk in the oil and gas, marine, offshore, power generation, mining, thermal, fire and welding protection, petrochemical, transport and aerospace domains.

transport

- Custom-designed cab insulation to meet the current noise regulations
- Thermal exhaust and turbo covers for personal protection
- Heat shielding products
- Noise and vibration monitoring and control
- High temperature seals and exhaust tapes

marine and offshore

- Turbocharger covers
- Valve covers
- Insulation blankets
- Exhaust lagging
- Acoustic insulation
- Accommodation fire panels
- Fire protection to meet B, A, H and J class

mining

- Flexible hoses
- Dust and flange covers
- Anti-static materials
- Fabricated insulation covers
- Acoustic treatments
- Seals and flanges

Research, Development and Capabilities

Pyrotek's more than 50 years' experience supports our premium thermal and noise insulation products and services. These products reduce noise and heat to comfortable safe levels in a range of applications.

Our world-class team of engineers and scientists bring a wealth of knowledge and experience to successfully control and reduce heat and noise in demanding environments. They refine existing products and create new materials as required to meet the unique needs of our customers.

Working with a diverse range of impregnated fabrics for high temperature applications allows us to select textiles that are engineered for strength, dependability and long service life in the toughest of environments. Pyrotek offers services such as:

- CNC cutting technology including laser, waterjet and multi-axis tables
- digitally created patterns using the latest software for repeatability
- fully equipped laboratory to simulate international fire and mechanical testing
- onsite installation service including project management, underground, cryogenic and hot work installation

Acoustic Insulation

Pyrotek helps control noise. Our world-class team of engineers and scientists bring a wealth of knowledge and experience to design and develop products that successfully control noise in demanding environments.

Vibration Damping

Vibration noise can be minimised by applying vibration damping materials that dissipate vibration energy in the structure and convert it to heat. Our products include constrained layer damping, extensional damping and vibration isolation.

Noise Barriers

Noise barriers are a flexible, mass-loaded vinyl, offering superior acoustic transmission loss. Our range includes noise-reducing floor mats, mass barriers, low spread of flame, low smoke & fire retardant noise barriers.

Sound Absorbers

Sound absorbers are applied to reduce noise energy. We provide a range of materials such as fibreglass, foam and polyester with a variety of surface coverings to suit each application.

Barrier Absorber Composites

Pyrotek has created a unique acoustic solution – combining acoustic foam and a noise barrier, developed with the aim of simplifying the acoustic treatment of enclosures, engine bays and plant rooms.

Fabricated Covers - Metallic and Fabric

Pyrotek speciality products custom makes and designs covers that utilise our range of fabrics, felts and blankets to suit a variety of conditions from cryogenic to high temperature metal smelting. There is an increasing demand for removable insulation covers for all types of high temperature equipment. Our covers provide excellent personal protection from heat and are easy to remove and replace when performing maintenance.

Our full service means you can leave the material selection, measuring, design, predicted performance calculations and installation to the specialists - us.

- Industrial machinery and turbine covers
- Custom-made valve and flange covers for the off-shore industry
- Exhaust and manifold covers for the mining and marine industry
- Aerospace-approved products
- Prefabricated jackets for pipes, holding vessels and tanks
- High temperature acoustic curtains and covers
- Fire-rated curtains

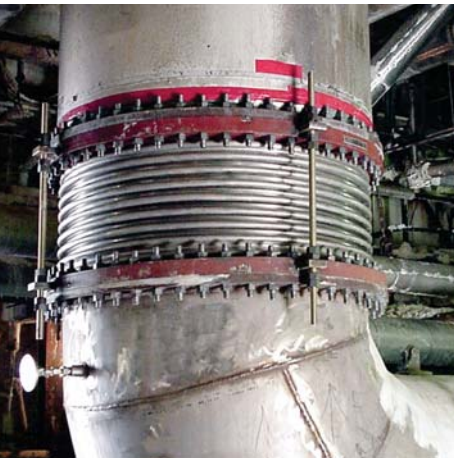
Expansion Joints - Metallic and Fabric

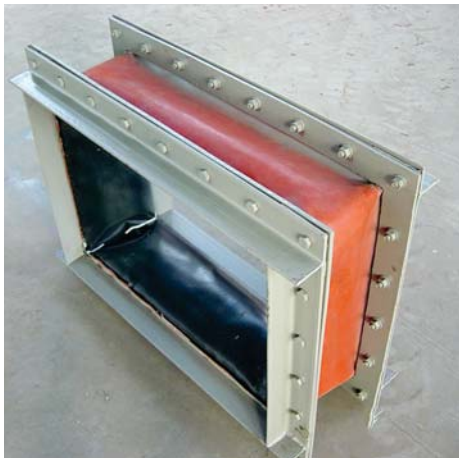
All exhaust gas duct work requires expansion joints or vibration eliminators to absorb any movement in the duct work.

We manufacture a range of fabric and metallic expansion joints. The correct materials are selected depending on temperature and the type of corrosive gases present. We supply fabric expansion joints made from high temperature fabrics and are also able to incorporate high density noise barrier materials to provide a sound barrier in joints on or near fans.

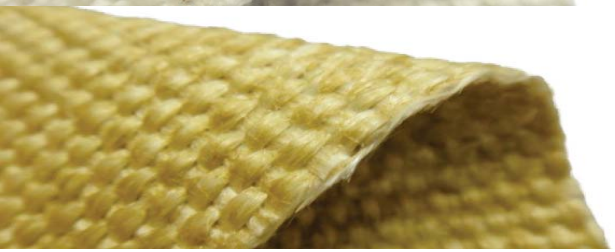
We offer a complete service including design, manufacture and supply of the fabric and metallic expansion and associated steelwork.

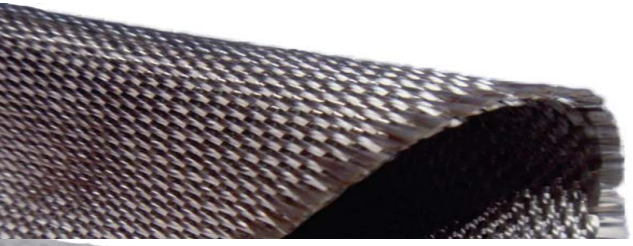
- Fabric expansion joints custom designed and fabricated
- Custom-made metallic bellows for high temperature, pressure and chemical resistance.
- High noise reduction acoustic expansion joints
- Variety of specialty fabrics to withstand highly corrosive, acidic and alkaline conditions
- Complete expansion joint assemblies ready for installation
- On-site supervision of installation





Fabrics





Plain fibreglass

Pyrotek manufactures and coats fibreglass fabric offering an extensive range of fibreglass fabrics in an extensive range of weights, finishes, colours and textures. Weights are available from 50g/m^2 up to 3000g/m^2. All our loom state fabrics are available with a weave set finish to reduce fraying.

Wire-reinforced fibreglass

A unique method of introducing stainless steel continuous fibres gives us the ability to design high temperature fabrics where additional strength and integrity is required. Our wire-reinforced fabrics are also available with graphite, vermiculite or silicon coatings.

Vermiculite-coated fibreglass

Our vermiculite-coated fabrics exhibit excellent temperature and abrasion resistance. The vermiculite treatment improves the fabrics temperature resistance to withstand temperatures up to 800ºC. A vermiculite coating can also be applied onto silica glass or ceramic fabric. Typically these fabrics are supplied in weights of 600 and 1000g/m^2.

Graphite-impregnated fibreglass

Our graphite-treated fabrics are impregnated using a dip coating method to provide a uniform coverage. We offer several graphite treatments for an assortment of applications. Graphite treatment improves the base fabric's heat resistances and also offers excellent abrasion resistance.

Silicon-coated fibreglass

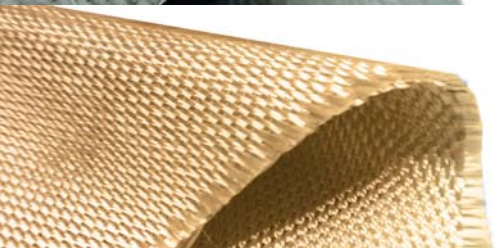
Silicon-coated fabrics are available in various weights from 180 to 1200g/m^2. Our optimised formula offers excellent heat resistances allowing the fabric to remain flexible and durable during prolonged use at high temperatures. Our silicon fabrics are available with a single-sided or double-sided coating and in a range of standard colours. Silicon also has excellent UV durability and is resistant to water, oils, grease, fuels and many chemicals.

Foil and mylar-faced fibreglass

Our fibreglass fabrics can be supplied with a layer of pure aluminium foil, stainless steel foil or mylar-faced films. These facings offer a highly reflective surface and also act as a vapour and liquid barrier. The films are bonded using the latest technology and are resistant to higher temperatures than traditional laminations.

Neoprene-coated fibreglass

Neoprene offers excellent fire resistance and also provides high resistance to chemical and liquid attack. Neoprene-coated fabrics provide excellent protection against hot metal grindings and weld splatter. A full range of weights and sizes is available.



Silica glass

Silica glass fabrics have been developed for use in applications requiring higher temperature performance than traditional fibreglass. Fibreglass fabrics are typically rated to 550ºC, silica glass fabrics can withstand temperatures of up to 1000ºC. Silica fabrics also have excellent chemical resistance and electrical insulation properties.

Teflon®-coated fibreglass

Teflon® (PTFE) is a high temperature non-reactive polymer coating. Our Teflon coated fabrics are resistant to most reactive and corrosive chemicals and also have high abrasion resistance. These fabrics are often used as a weather or chemical resistant barrier. A comprehensive range of weights and sizes is available.

Ceramic-coated woven fabric

Offering the highest temperature resistance in woven fabrics, our ceramic fabrics have excellent chemical, abrasion and thermal resistance. These fabrics are able to withstand temperatures up to 1600ºC without melting. They can easily be cut, sewn and fabricated into various shapes, and are available with stainless steel or Inconel® wire reinforcing.

Thermal Insulation

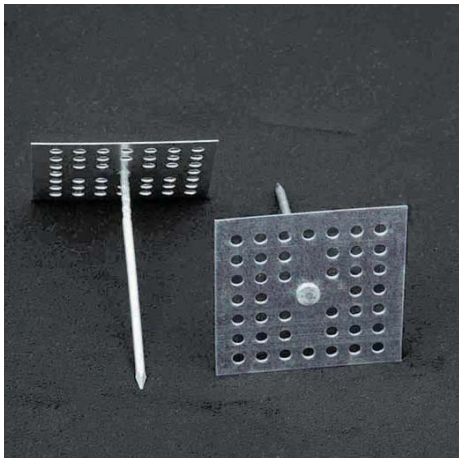
Pyrotek supplies a wide range of thermal insulation products to meet different requirements.

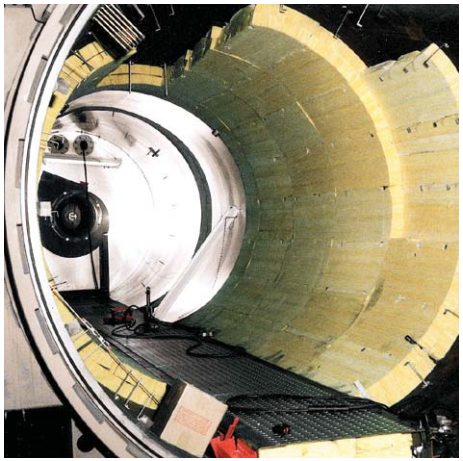
- Polyester from 20 to 80kg/m^3 for thermal and acoustic applications from -10^{0}C to 110^{0}C
- Traditional glasswool, 16 to 130kg/m^3 for temperature from -10^{0}C to 530^{0}C
- Quilted fibreglass blanket for thermal and acoustic applications for applications needing better mechanical strength
- Cryogenic fibreglass for temperatures from -150^{0}C to 530^{0}C
- Needlemat, 130kg/m^3 fibreglass felt with high mechanical strength and rated to 650^{0}C
- Rockwool from 45 to 130kg/m^3, Rockwool is suitable for temperatures up to 830^{0}C
- ULTIMATE, a marine certified thermal and acoustic fire insulation achieving A0 to A60 requirements
- Ceramic fibre for service temperatures 1200^{0}C to1600^{0}C
- BioSoluble fibre (or low bio-persistence fibres for temperatures between 1000^{0}C to1200^{0}C

Accessories

Pyrotek offers a range of consumable items to complement our products

- Weld pins and clips in a range of styles and sizes, both Arc and CD pins are available in plain or bimetallic versions
- Industrial insulation pins and clips are available with either a perforated based plate or pressure sensitive adhesive
- Fire proof mastic compounds rated to 1000^{0}C for sealing penetrations in high temperature applications
- High temperature fibreglass or ceramic tapes and ropes for door seals and lagging
- High temperature silicone coated fibreglass tubing
- Braided ropes and tadpole seals available in a comprehensive range of sizes
- Insulcoat - anti condensation coating
- Staineless steel knitted mesh
- Lacing hooks, eyelets and sewing treads





Pyrotek endorse forest sustainability and the preservation of natural environment. We procure the highest quality materials from suppliers who hold FSC (Forest Stewardship Council) Certification and PEFC (Programme for the Endorsement of Forestry Certification) amongst other certification programmes.

Caveats: Specifications are subject to change without notice. The data in this document are typical of average values based on tests by independent laboratories or by the manufacturer and are indicative only. Materials must be tested under intended service conditions to determine their suitability for purpose. The conclusions drawn from acoustic test results are as interpreted by qualified independent testing authorities. Nothing here releases the purchaser/user from responsibility to determine the suitability of the product for their project needs. Always seek the opinion of your acoustic or mechanical engineer on data presented by the manufacturer. Due to the wide variety of individual projects, Pyrotek NC is not responsible for differing outcomes from using their products. Pyrotek disclaims any liability for damages or consequential loss as a result of reliance solely on the information presented. No warranty is made that the use of this information or of the products, processes or equipment to which this Information Page refers will not infringe any third party's patents or rights.

Pyrotek®

PYROTEK WORLDWIDE LOCATIONS

AUSTRALIA
CANADA
CHINA
CZECH REPUBLIC
HONG KONG
INDIA
INDONESIA
JAPAN
KOREA
MALAYSIA
SINGAPORE
NEW ZEALAND
TAIWAN
THAILAND
TURKEY
UNITED ARAB EMIRATES
UNITED KINGDOM
UNITED STATES OF AMERICA
VIETNAM

CONTACT DETAILS

for further information and contact details, please visit our website at pyroteknc.com