

Pyrotek®

manufacturing quietness



MARINE RANGE SUMMARY

SOUNDPROOFING SOLUTIONS



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pyroteknc.com



Pyrotek manufactures and sells some of the most technically advanced and specialised marine noise control and fire protection materials in the world today. This catalogue provides a summary of the marine products available.

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noise barriers	page 5
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DECIDAMP® SP150



Soundpaint® SP150 is a fast drying, water based vibration damping compound. The exceptional vibration damping properties are complemented by ease of use, low volatile organic compounds and low combustibility.

Soundpaint can be easily applied by trowel, brush, roller or spray gun. Once dry the cured film is UV, water and abrasion resistant.



APPLICATIONS

- hulls, decks, deck heads and bulkheads
- ancillary machinery/equipment enclosures
- interior of superstructure
- stainless steel fabrications
- ventilation ducts

SYLOMER

Sylomer, the special PUR elastomer material developed by Getzner is one of the leading products on the international market for vibration isolation and mitigation.

The elastic polyurethane material deforms under tension and compression loads, but always returns to its original form. In doing so, this reliable material isolates and reduces vibration.



APPLICATIONS

- floating interiors, including floors, bulkheads and ceilings, preventing vibration transfer
- isolation of machinery
- isolation of impact generated noise

SOUNDMETAL™ MPM



Soundmetal is a damped metal composite comprising two layers of metal laminated together using a layer of a viscoelastic polymer.

Using the 'constrained layer' principle, the function of the viscoelastic interlayer is to damp structure borne sound. Made from either marine grade aluminium sheet or electrogalvanised steel, the sheets are available powder coated to any colour, being aesthetically pleasing and offering resistance to corrosion.



APPLICATIONS

- engine room lining
- covers and hatches
- machinery and equipment enclosures
- acoustic bulkheads and doors
- air conditioning ducts

DECIDAMP™ CLD



Is a constrained layer, viscoelastic damping material, designed to reduce structural vibration and sound transmission within light gauge materials.

The engineering team developed a high performance product that thermally bonds three layers; a rigid outer layer, a viscoelastic membrane and a high-tack adhesive layer, hence the name CLD (Constrained Layer Damping).

DECIDAMP™ DC30



A two component polyurethane viscoelastic damping paste, which works best using metal counter plates. The combination of DC30 paste and counter plate creates an effective viscoelastic damping solution. This in turn results in substantial reductions in structure radiated airborne sound.

It performs well over a wide temperature and frequency range.

DECIDAMP™ TILE

DecidampTile is a unique product, engineered to reduce vibration in thick panel constructions and is formulated using new generation polymer compounds to provide exceptional performance. The vibration energy in the structure is absorbed within the tile, therefore reducing structural and airborne noise.

DECIDAMP™ SLC



It is a specially formulated, economical two component, polyurethane based, self levelling damping compound, that has International Maritime Organisation approval. The built-in self levelling properties will effectively level flooring, eliminating 'cresting'. Imperfections are levelled leaving a floor with excellent vibration damping properties. Most effective when used in combination with a self levelling screed, it has been tested with Weber's 4660 screed and meets the criteria for primary deck coverings.



APPLICATIONS

- maximum performance achieved when applied to lightweight panels and steel substrates of up to 2mm, aluminium substrates up to 4mm and FRP - fibre reinforced plastic (solid) up to 6mm thick
- fuel tanks and lightweight metal or FRP to control noise from water, liquid or mechanical action
- ventilation ducts

APPLICATIONS

- maximum performance achieved when applied to lightweight panels and steel substrates of up to 8mm
- hull, deck and bulkheads to reduce vibration noise
- floors to reduce impact noise
- portable generator and pump units
- propeller and bow thruster area

APPLICATIONS

- maximum performance achieved when applied to lightweight panels and steel substrates of up to 20mm
- bulkheads, hull construction, including superstructure
- tank tops, engine bed girders
- propeller and bow thruster area

APPLICATIONS

- self levelling on uneven surfaces, eg decks
- reduce impact noise in flooring applications
- vibration control on flooring

SUBDUE®

Pyrotek's innovative engineering and material process uses a unique combination of viscoelastic cores, lamination technology and outer layer materials to produce high performing composite panels that are both strong and rigid.

Due to the light weight and stiffness of standard marine ply, airborne sound is easily transferred through partitions and soles.

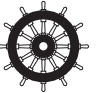
Subdue works by reflecting, absorbing and damping the vibration and transmission of sound through walls and floors, reducing the critical frequencies generated from mechanical equipment, engine noise and electronic audio devices.



APPLICATIONS

- Structure lining and partition walls
- Particularly suited for high-privacy areas such as staterooms
- Interior marine construction including bulkheads, cabin partitions, floating floors
- Fabrication of acoustic doors
- Used in conjunction with an isolation mount to create floating wall, floor and ceiling systems

QUADZERO NL®



A high performance, mass barrier offering superior acoustic transmission loss and a low spread of flame surface covering. To achieve this high performance, the engineering team developed Quadzero Nonlite to be dense, thin, strong, tear-resistant and highly flexible. These properties give the product high transmission loss throughout the various weight ranges.



APPLICATIONS

- Flexible mass barrier for engine room bulkhead and deck heads
- High privacy partition wall linings, floors
- Soft acoustic enclosures, baffles
- Replacement for lead sheeting
- Acoustic up-scaling of existing wall, ceilings and floors

SILENTSTEP®

Silentstep® is a new generation acoustic carpet underlay, comprising a flexible noise barrier fused onto a high density premium foam underlay. The combination of these two products allows Silentstep to reduce the transmission of footfall and impact-generated noise.

Easy to cut and lay, it offers excellent support and a firm cushioned base for all types of carpet applications. It is ideally suited for lightweight flooring constructions such as timber and marine applications where fiberglass and composite floor panels are used.



Image courtesy of MY BLACK PEARL

APPLICATIONS

- Upper and mid-deck floor covering, under carpet in marine applications
- A noise barrier to stop engine noise travelling into staterooms, salons, VIP cabins
- Bulkheads, generator set and pump motor enclosures and covers, under upholstery or carpet finish
- Can be used under plywood flooring as both isolation and noise barrier

SORBERBARRIER®

Sorberbarrier® is a composite sandwich material composed of a flexible high mass noise barrier, based on Wavebar® technology, laminated between two layers of flexible acoustic foam.

Both the decoupling foam and absorptive layer are composed of Sorberfoam® combustion modified, polyether polyurethane foam that provides excellent hydrolysis resistance.

Sorberbarrier is offered in a range of surface finishes*, weights and thicknesses dependent on application.

* See surface coverings on our website www.pyroteknc.com



APPLICATIONS

- Engine compartments, rooms and bulkheads
- Ancillary machinery and equipment enclosures
- Generator, pump and compressor enclosures
- Ventilation ducts
- Used in partition cavities to improve transmission loss

SORBERFOAM™

Sorberfoam™ is the next generation of combustion modified, flexible acoustic foams, offering high noise absorption properties across a broad frequency range.

Pyrotek has developed a polyurethane foam that outperforms traditional acoustic foams by controlling the cell size, porosity, density and the flow resistivity throughout the cell structure and is engineered to resist degradation or foam rot (hydrolysis).

It is offered in a range of coverings* and thicknesses dependent on application.

** See surface coverings on our website www.pyroteknc.com*



SORBERMEL™



Sorbermel® is an open-cell flexible melamine foam that displays excellent fire resistance over traditional polyurethane foams. Tested to IMO A653-16, the melamine resin-based foam carries EC Type Certification (MED B) and demonstrates excellent resistance to hydrolysis and combustion.

At 10kg/m³, Sorbermel offers significant weight savings over traditional insulation. It is offered in a range of surface finishes* dependent on application.

** See surface coverings on our website www.pyroteknc.com*



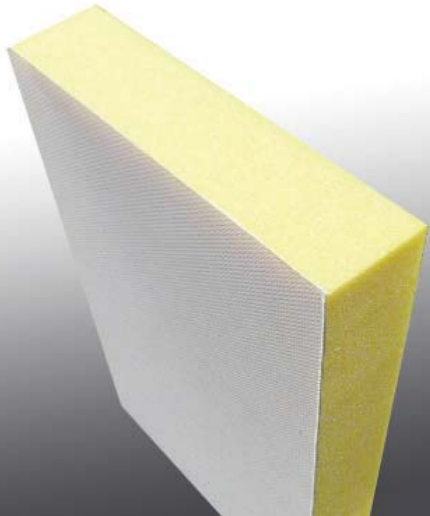
APPLICATIONS

- Engine compartments and covers to control reflected noise
- Partial enclosures
- Ceiling linings
- Hull side linings
- Ventilation ducts
- Cavity in-fill for thermal and acoustic insulation
- Decorative sound absorbing foam panels
- Compressor and generator enclosures

SORBERMIDE™

High-performance ultralight acoustic and thermal insulation polyimide foam Sorbermide™ is one of the lightest and flexible polyimide foams in the market, offering a unique combination of excellent sound-proofing and thermal insulation performance with high fire properties.

Sorbermide™ is made using Solimide® TA-301. Solimide® is sold by Pyrotek under agreement.



SORBERPOLY™

Sorberpoly™ acoustic insulation is non-woven fine-fibre polyester, with excellent sound-absorbing and thermal insulation properties useful in high humidity applications. It is also fuel, oil and grease resistant and under normal applications will last a life-time.

Sorberpoly is lightweight, hydrophobic (non-wicking) and easily cut, using scissors or a sharp knife.

It is available in 3D vertically-laid fibre preventing loss of loft and delamination, or traditional 2D a horizontally-laid fibre and in a range of surface finishes* dependent on application.

** See surface coverings on our website www.pyroteknc.com*



SORBERSCREEN™



Sorberscreen® perforated metal screen with a fire resistant textile backing, which provides excellent flow resistance offering high performance sound absorption. The product has a hard durable finish with an aesthetic appeal. It is the perfect finish for sound absorption in engine rooms, soundproof enclosures.

The perforated metal screen is made from either marine grade 5052 aluminium sheet (Sorberscreen ALU) or electrogalvanised steel (Sorberscreen EGS) with 28% open area. The metal screen can be easily powder coated or spray painted to any colour desired.



APPLICATIONS

- Navy : submarines, aircraft carriers, cruisers, destroyers, frigates
- Commercial marine: high speed yachts, ferries
- Military armoured vehicles, personnel carriers
- Railway cars and locomotives
- Mining vehicles

APPLICATIONS

- Engine compartments and covers to control reflected noise
- Partial enclosures
- Ventilation ducts
- Hull side lining
- Cavity infill for acoustic and thermal insulation
- Fill for voids that can conduct noise from adjacent areas

APPLICATIONS

- Acoustic wall and ceiling panels for machinery spaces
- Ventilation ducts
- Lining of acoustic enclosures
- Acoustic baffles
- Interior decorative wall absorbers

DECICOAT™ T35



Water based spray-on coating that provides excellent thermal insulation, anti-condensation and corrosion protection.

Decicoat T35 reduces the internal surface temperature of a structure, which in turn reduces condensation. The specially formulated coating exhibits excellent adhesion properties, water resistance, high flexibility and low odour.

Insulcoat complements the use of traditional insulation, allowing changes in a system using a lighter or thinner grade of insulation, reducing weight and cost.



APPLICATIONS

- Interiors of superstructures and hulls in marine vessels, workboats, luxury yachts and super-liners etc
- Interior structures of habitable areas on off-shore platforms
- Applied in conjunction with traditional fibrous or foam insulation to improve overall thermal insulation systems

ULTIMATE



ULTIMATE combines peak performance in fire protection and thermal insulation with an extremely lightweight, flexible product. It provides additional acoustic insulation while being faster and more efficient to install than traditional methods. It is marine certified (type approval) for use on steel, aluminium and composite/glass constructions.



APPLICATIONS

- Structural fire protection of aluminium, steel, composite structures
- Non-combustible thermal and acoustic insulation of ceilings, decks and bulkheads

FYREWRAP



Fyrewrap marine blanket is a totally inorganic, biosoluble, flexible, high temperature insulation blanket specifically designed to provide structural fire protection for marine applications at a reduced thickness.

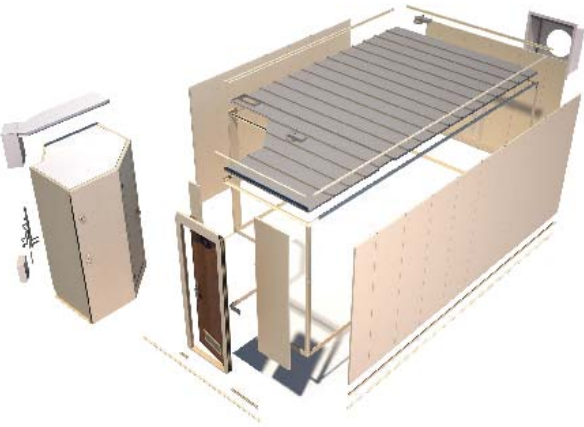
This technology results in a material with high tensile strength and superior thermal and acoustical properties. Fyrewrap marine blanket is chemically stable and its thermal properties are unaffected after exposure to water or high humidity.



- Interiors of superstructures
- Hulls in workboats, luxury yachts and super-liners
- Various H-fire rated offshore structures

MARINE ACCOMMODATION SOLUTIONS

Quality systems for the shipbuilding and offshore industry including fire certified doors, panels, ceilings, wet units and floating floors - providing a complete accommodation package which can be supplied standard, semi-modular or modular form, for just-in-time installation anywhere in the world.



CENTEK

Mufflers utilising the highest quality resin designed for high temperature and fire resistance, providing a complete range, including in-line, lift, water/gas separators and combination lift/gas/water separators, offering custom solutions to satisfy specific client needs. They are Lloyds Register Certified, carry an ABS Type approval and meet or exceed ABYC-P1 standards, also meeting military specifications.



DeANGELO

The industry leader in the design, engineering, manufacture and installation of quality marine exhaust systems for vessels from 29' to over 400', including geometry, auxiliary cooling requirements, attenuation and temperature restrictions and can provide a turnkey exhaust system. DeAngelo understands the delicate balance between maximum allowable exhaust back pressure, exhaust temperature, noise attenuation, raw water intake and engine room serviceability.



APPLICATIONS

- Fire rated doors
- Pre-fabricated wet units
- Non-combustible linings
- Weight sensitive applications

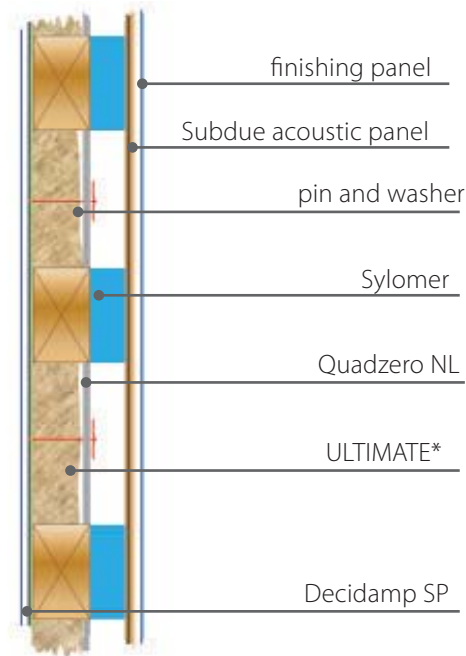
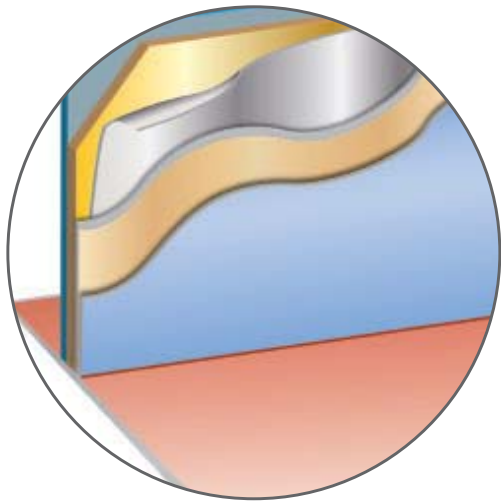
SERVICES

- Professional engineering and design work
- customized systems
- On-site application and engineering
- On-site exhaust measurement services
- Complete installation and service

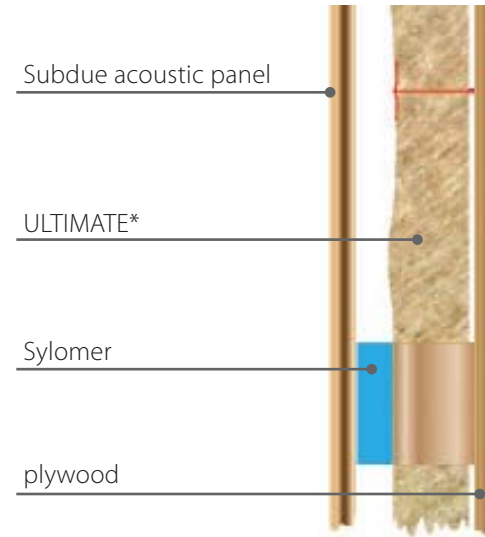
- Guaranteed allowable exhaust backpressure
- Standard three to five year performance warranty



LINING OF VIP ACCOMMODATION AREA



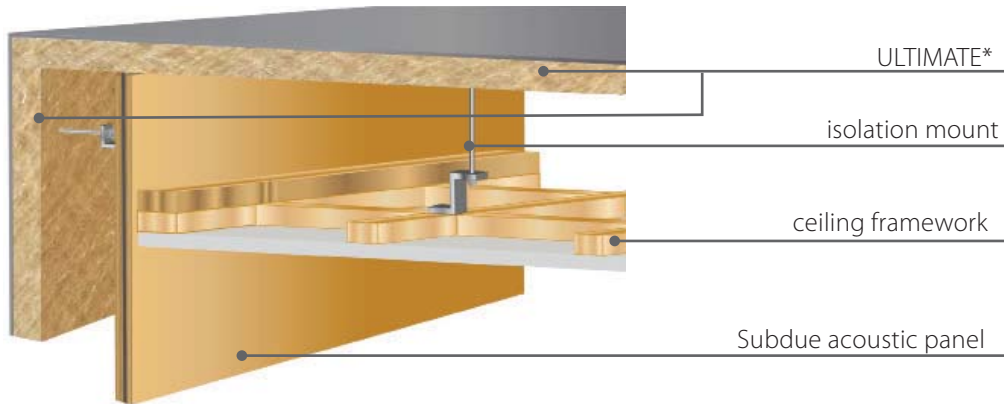
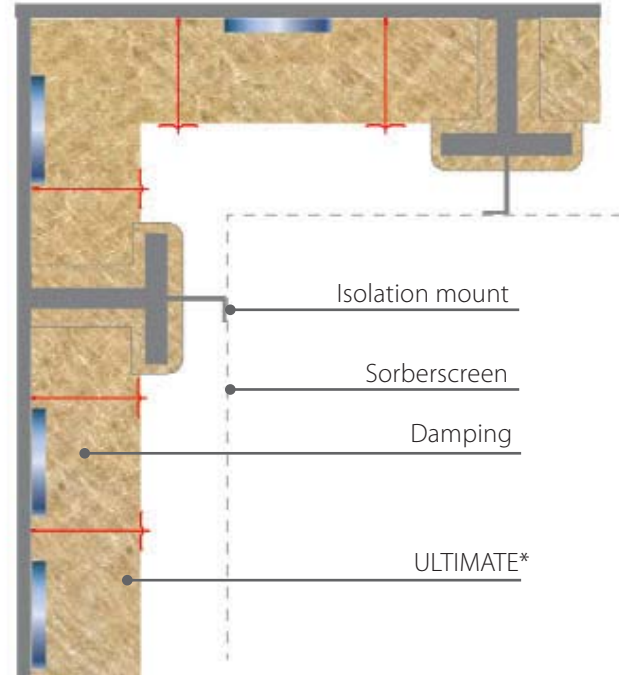
PARTITIONS





CEILING INSULATION

ENGINE ROOM VENTILATION

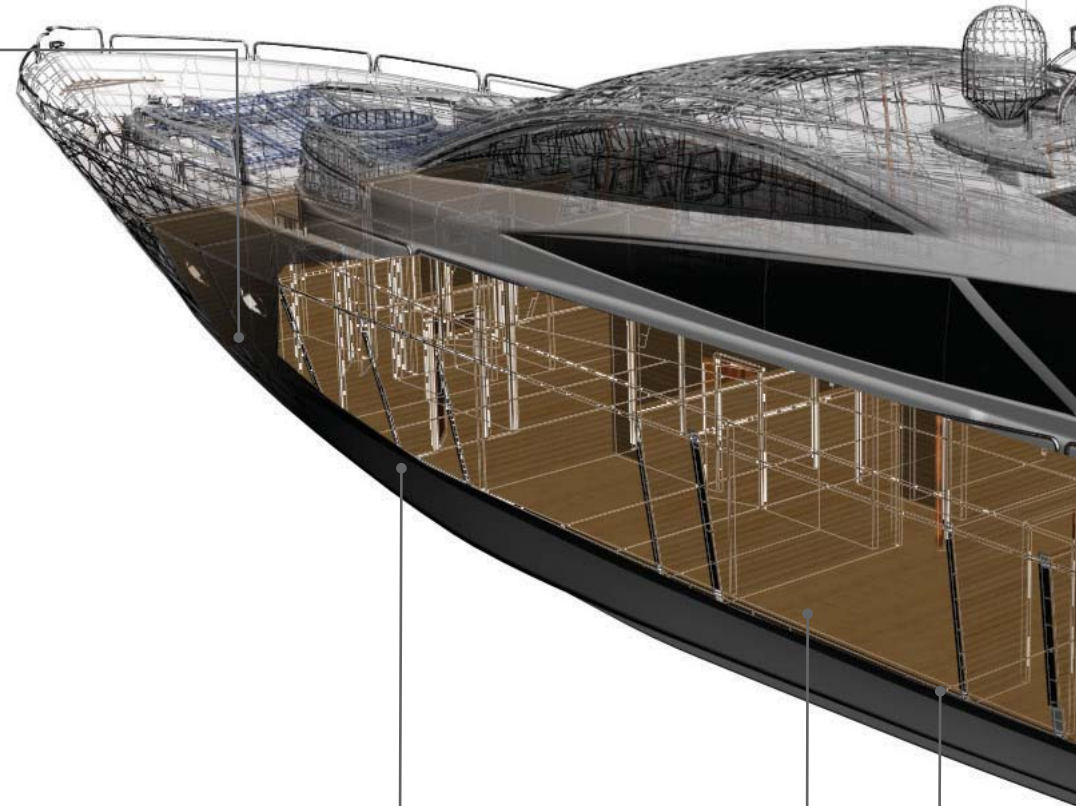
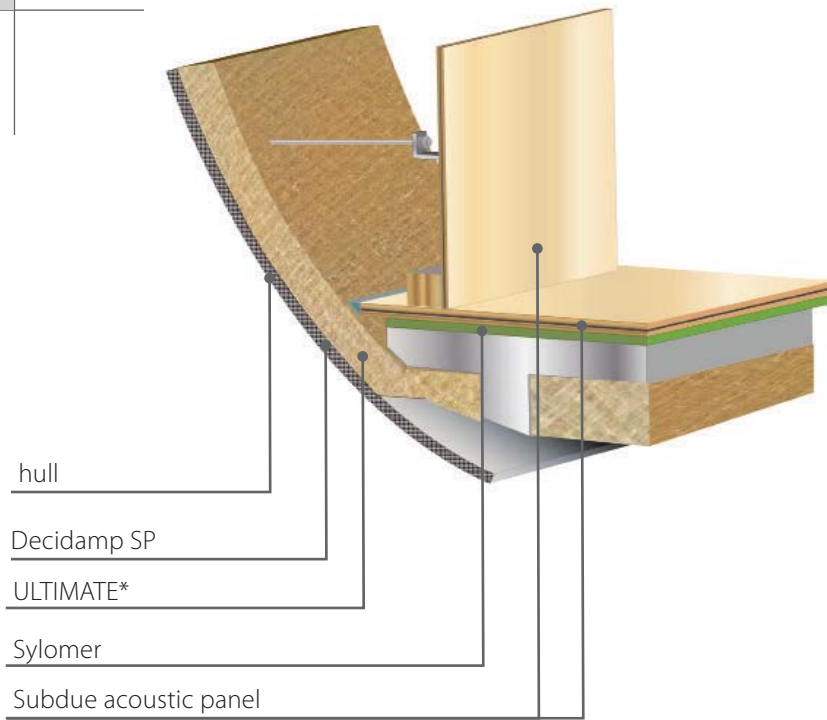


* Can be replaced with Sorberfoam, Sorberpoly, Sorbermide, Sorbermel depending on classification of vessel

** System can be replaced with single layer of Sorberbarrier depending on classification of vessel

*** Floating floor - Subdue can be replaced with standard ply and Silentstep Premium depending on acoustic requirements

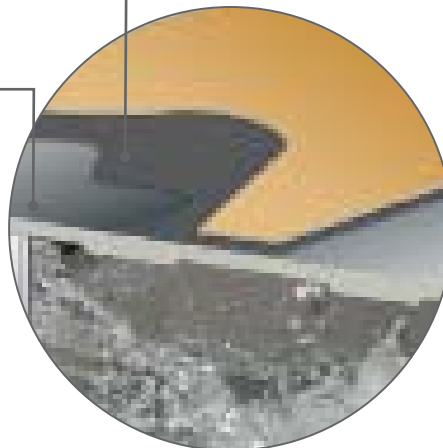
HULL INSULATION



INSULATION - ALL FLUID TANKS

FLOATING FLOORS

Decidamp DC30 and counterplate or
Soundpaint
bottom shell or tank top

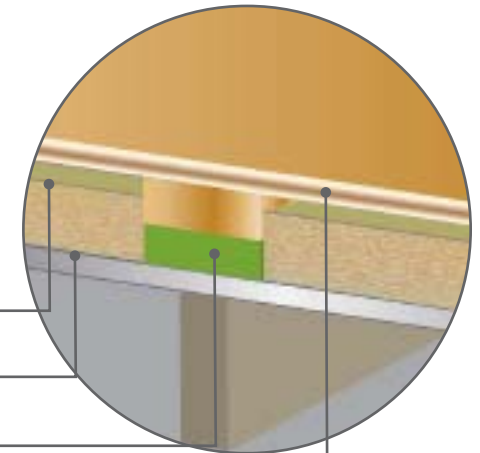


Cavity infill insulation

Decidamp SLC

Sylomer

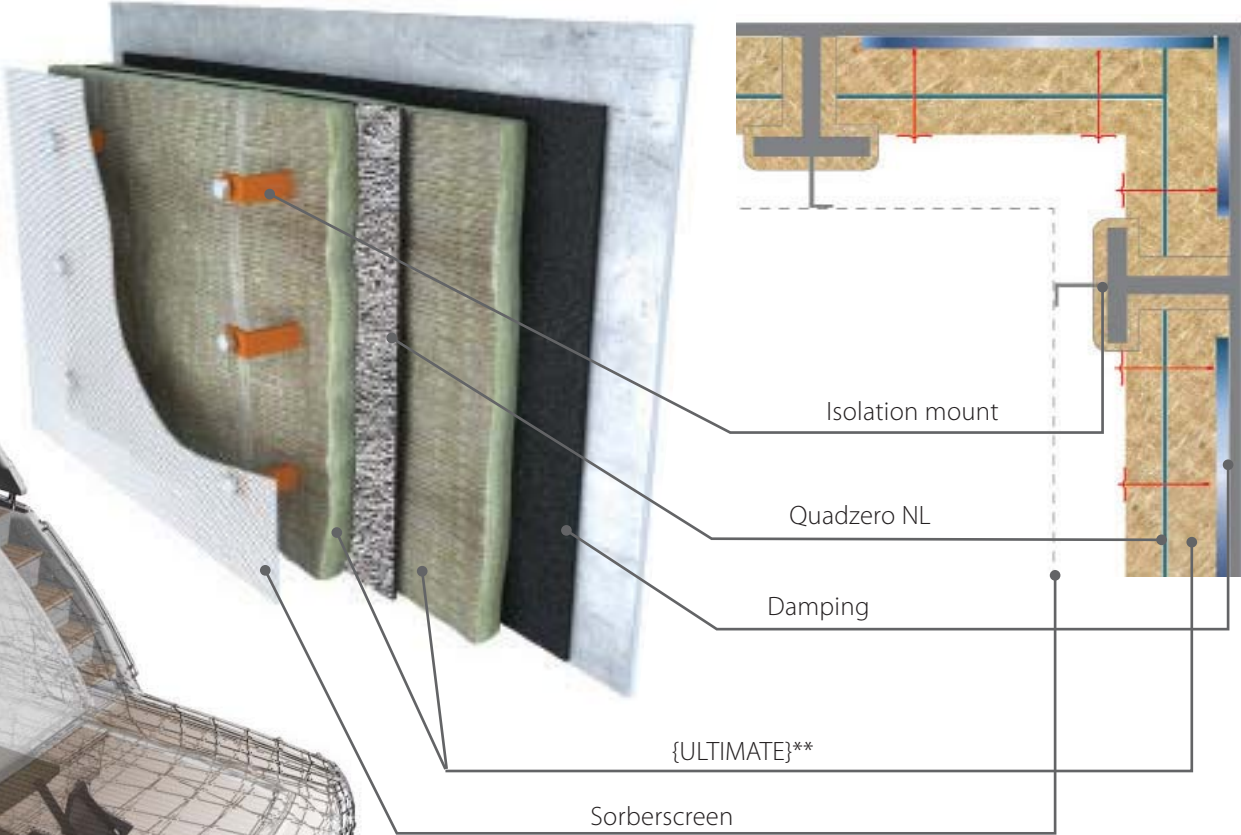
Subdue acoustic panel***



ENGINE ROOM/CONTROL ROOM/LAZARETTE



ENGINE BEARERS



Isolation mount

Quadzero NL

Damping

{ULTIMATE}**

Sorberscreen



Decidamp tiles



PYROTEK NOISE CONTROL 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 www.pyroteknc.com

pyroteknc.com/contact-us



Product specifications, testing and certification

We have tested our products to a range of marine specifications to enable them to be used in surveyed vessels or for specific certification.

Check our Information Pages for product specific details via our website www.pyroteknc.com. Find products by search or filter on the 'Products' page, or request information through our 'Contact us' page.

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.

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