

Pyrotek®



MARINE

ACOUSTIC AND THERMAL SOLUTIONS



Pyrotek manufactures technically advanced and specialised noise control and fire protection materials.

This brochure provides a summary of our available marine solutions.



30⁺
countries

80⁺
locations

300+ application
engineers, worldwide

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DECIDAMP® SP150



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

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



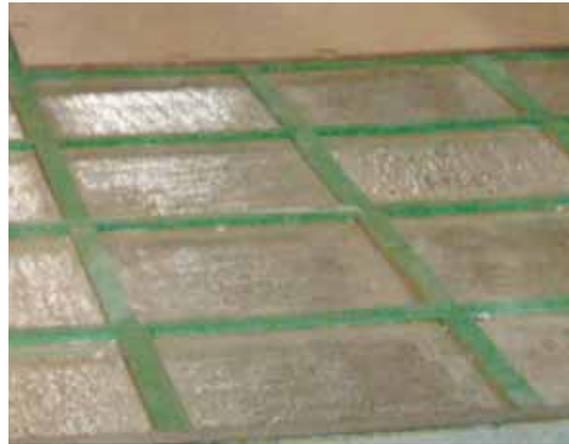
APPLICATIONS

- Hulls, decks, deckheads and bulkheads
- Ancillary machinery/equipment enclosures
- Interior of superstructure
- Stainless steel fabrications
- Ventilation ducts
- Propeller tunnels & bow thruster tubes
- Whitegoods

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

- Prevents vibration transfer in floating interiors including floors, bulkheads and ceilings
- Isolation of machinery
- Isolation of impact generated noise

SOUNDMETAL MPM



Soundmetal is a damped metal composite comprising two layers of metal laminated together utilising 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



Decidamp CLD is a constrained layer, viscoelastic damping material designed to reduce structural vibration and sound transmission within light gauge structures.

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).



APPLICATIONS

- Maximum performance achieved when applied to steel substrates of up to 2 mm, aluminium substrates up to 4 mm
- Fuel tanks and lightweight metal or fibre-reinforced plastic (FRP) to control noise from water, liquid or mechanical action
- Ventilation ducts
- Whitegoods

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.

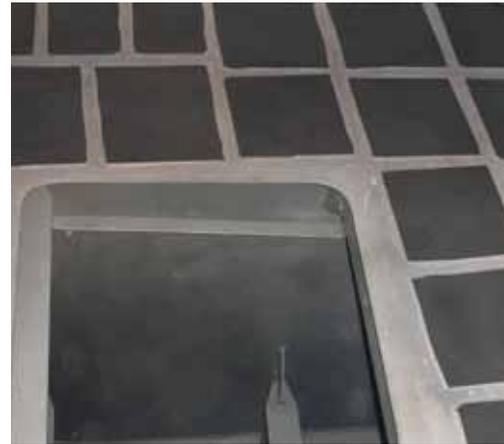


APPLICATIONS

- Maximum performance achieved when using correct thickness counter plates
- Hull, deck and bulkheads to reduce vibration noise
- Floors to reduce impact noise
- Portable generator and pump units
- Propeller and bow thruster area

DECIDAMP® TILE

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



APPLICATIONS

- Maximum performance achieved when applied to steel substrates of up to 20 mm
- Bulkheads, hull construction, including superstructure
- Tank tops, engine bed girders
- Propeller and bow thruster area

DECIDAMP® SLC



A specially formulated, economical two component, polyurethane based, self-levelling damping compound. The built-in 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

- Self-levelling on uneven surfaces, e.g. decks
- Reduce impact noise in flooring applications
- Vibration control under flooring

SORBERFOAM

Sorberfoam is the next generation of combustion modified, flexible acoustic foams, offering high sound 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*



APPLICATIONS

- Engine compartments and covers to control reflected noise
- Partial enclosures
- Ceiling linings
- Hull side lining

SORBERMEL

Sorbermel is an open-cell flexible melamine foam that displays excellent fire resistance over traditional polyurethane foams. Tested to IMO FTP Part 5, Res, A.653 (16), the melamine resin-based foam carries EC Type Certification (MED B) and demonstrates excellent resistance to hydrolysis and combustion.

At 9 kg/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*



APPLICATIONS

- Ventilation ducts
- Cavity in-fill for thermal and acoustic insulation
- Compressor and generator enclosures

SORBERPOLY

Sorberpoly acoustic insulation is a 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, non-wicking and non-water absorbent polyester which can be easily cut with scissors or a sharp knife. Sorberpoly is available in traditional horizontal layer (2D) or vertical lapped (3D) which has a high resiliency to maintain loft.



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



SORBERSCREEN

Sorberscreen perforated metal screen with a fire resistant textile backing, which provides excellent flow resistance and offers 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 and soundproof enclosures.

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



APPLICATIONS

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

SUBDUE®

Subdue is 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 lightweight and stiffness of standard marine ply, airborne sound is easily transferred through partitions and soles.

Subdue offers exceptional acoustic properties and varying densities. Subdue reduces the critical frequencies by reflecting, absorbing and damping the vibration and transmission of sound through walls and floors.



APPLICATIONS

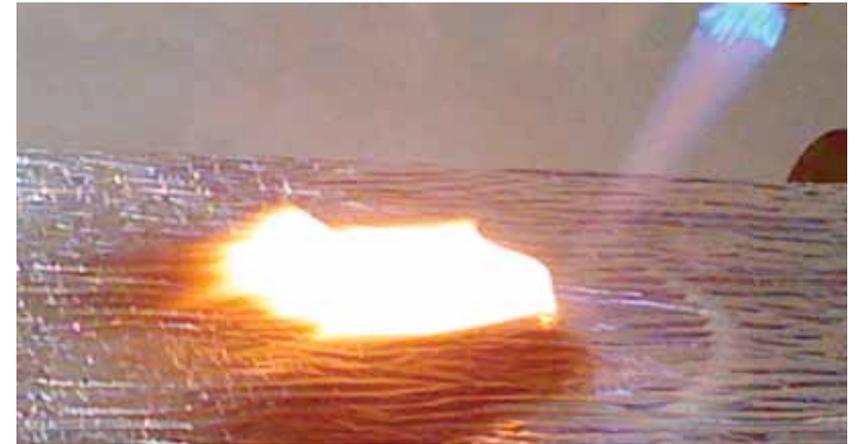
- Structural lining and partition walls
- Particularly suited for high-privacy areas such as staterooms
- Interior marine construction including bulkheads, cabin partitions, floating floors
- Fabrication of acoustic doors
- Used in conjunction with an isolation mount to create floating floor, wall and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

QUADZERO™ NL



Quadzero™ NL is a high-performance foil faced mass-loaded vinyl noise barrier, offering superior acoustic transmission loss and upgraded fire-resistance. Quadzero™ NL was developed to meet stringent fire safety requirements in the marine industry.

This product achieves the highest fire ratings complying with International Marine Organisation (IMO) standards for low spread of flame and can be used as the final layer on top of certified fire protection solutions.



APPLICATIONS

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

SILENTSTEP

Silentstep is a new generation acoustic carpet underlay, comprising of 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, as well as reduce the transmission of airborne 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.



APPLICATIONS

- Upper and mid-deck floor covering, under carpet in marine applications
- 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 an absorber composite material composed of a flexible 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*



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



PROMAT

Promat provides the best solution for any marine requirement including fire protection, and thermal insulation for cruise ships, yachts and naval vessels.

The high-performance, lightweight material provides faster installation and meets international fire safety standards.



APPLICATIONS

- Internal flooring
- Structural linings
- Bulkheads and decks
- Partitions & ceilings
- Structural fire protection



DECICOAT™ T35

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

Improve the efficiency of thermal insulation without the compromise of thermal bridging. Together with excellent vibration damping properties, it is ideal to use where weight reduction, thermal insulation and acoustic performance are a priority in walls and ceilings in marine applications.



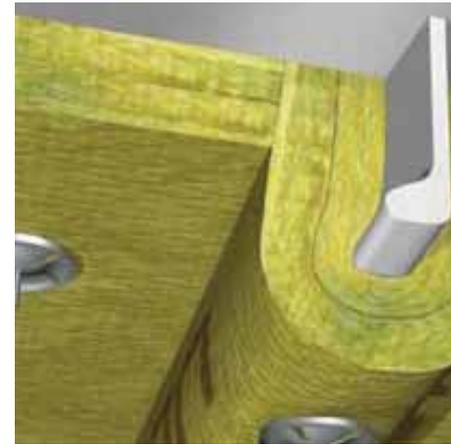
APPLICATIONS

- Superstructures and hulls in marine vessels, workboats, luxury yachts and super-liners
- Applied in conjunction with traditional insulation to improve overall thermal insulation systems
- Commercial & industrial applications on holding pipes & ducts
- Around battery rooms



ULTIMATE - U Sea Protect

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 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
- Comfort insulation - heat & acoustic



FYREWRAP

Fyrewrap marine blanket is a totally inorganic, bio-soluble, 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.

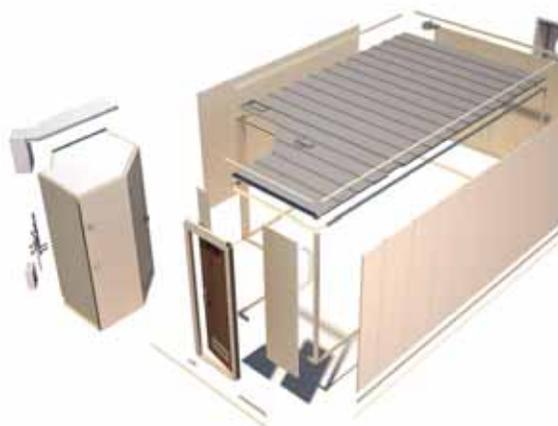


APPLICATIONS

- Interiors of superstructures
- Hulls in workboats, luxury yachts and super-liners
- Various H-fire rated offshore structures
- B Class bulkhead extensions
- High Speed Craft (HSC) approvals

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.



APPLICATIONS

- Fire rated doors A & B Class - sliding or hinged
- Pre-fabricated wet units
- Non-combustible linings
- Weight sensitive applications
- A & B Class linings, partitions & ceilings
- A Class floating floors

CENTEK

Centek Mufflers use the highest quality resin designed for high temperature and fire-resistance. A complete range includes 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.

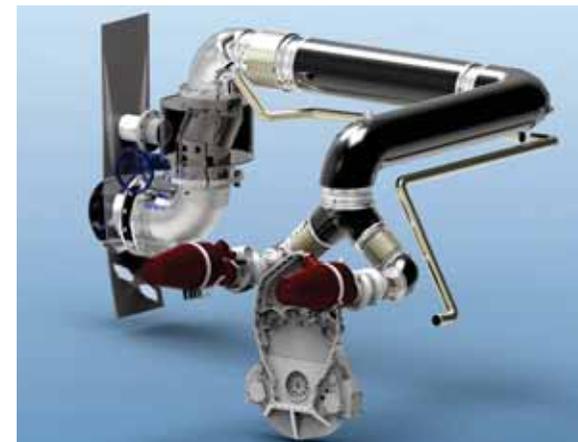


SERVICES

- Professional engineering and design work
- Customised systems
- On-site application and engineering
- On-site exhaust measurement services
- Complete installation and service
- Silencer/muffler for wet exhaust systems

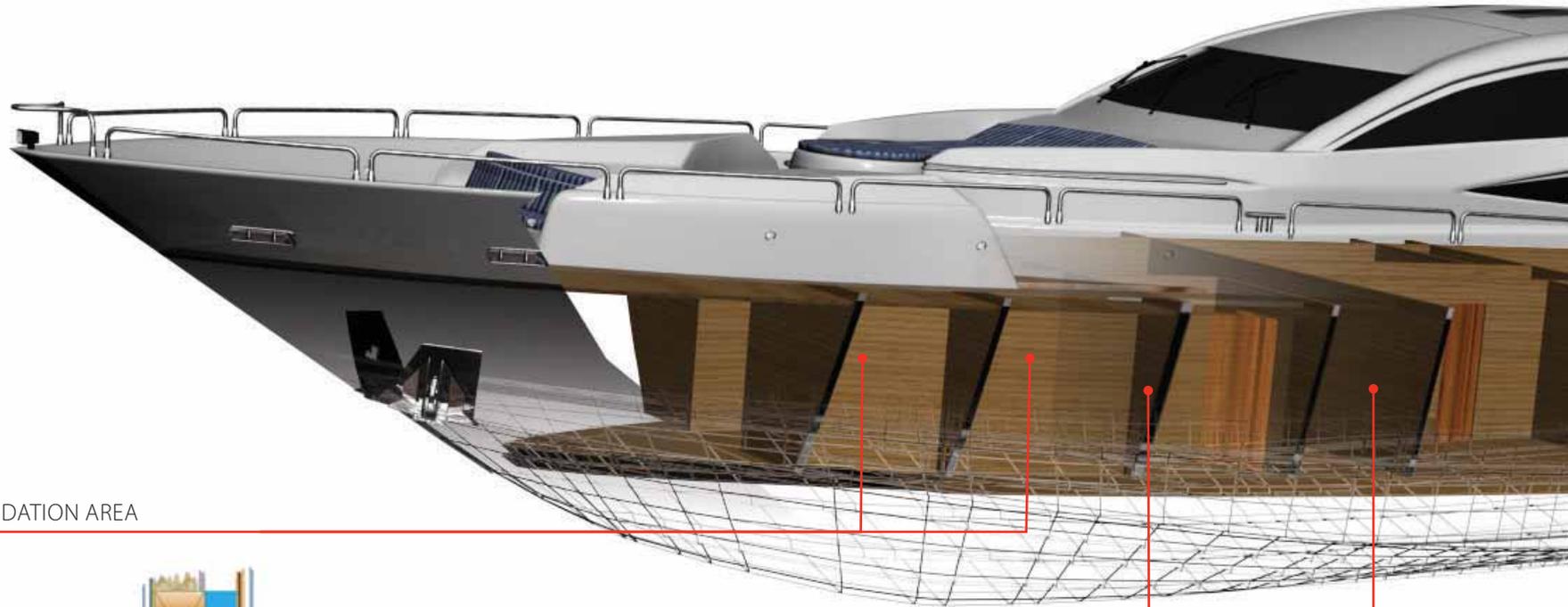
DeANGELO - Marine Exhaust

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.

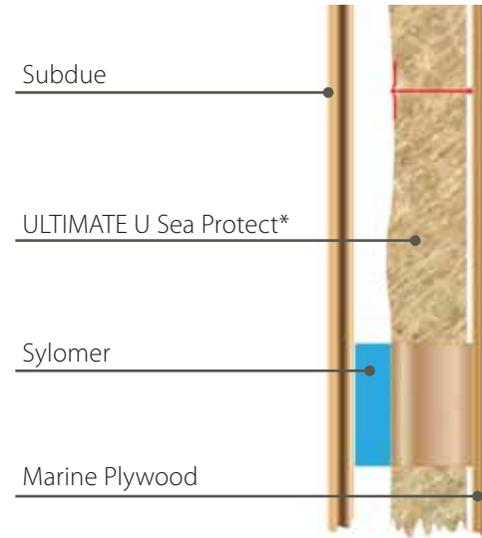
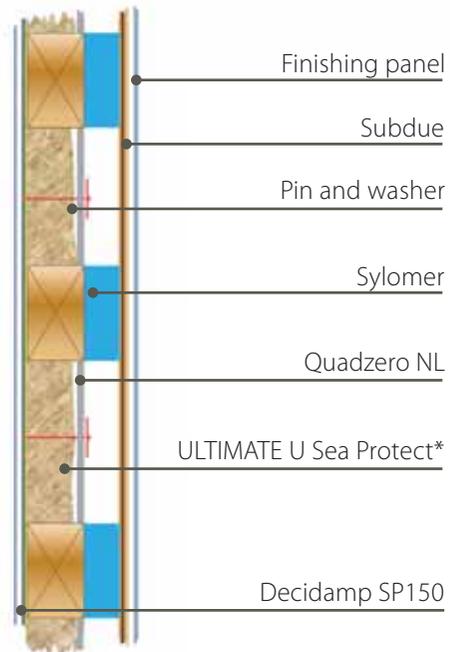


SERVICES

- Guaranteed allowable exhaust back pressure
- Standard three to five years performance warranty
- Minimum of SS316 used in fabrication
- Custom designed regenerative DPF (Diesel Particulate Filter) systems for generators on yachts
- Guaranteed performance
- Custom designed main exhaust



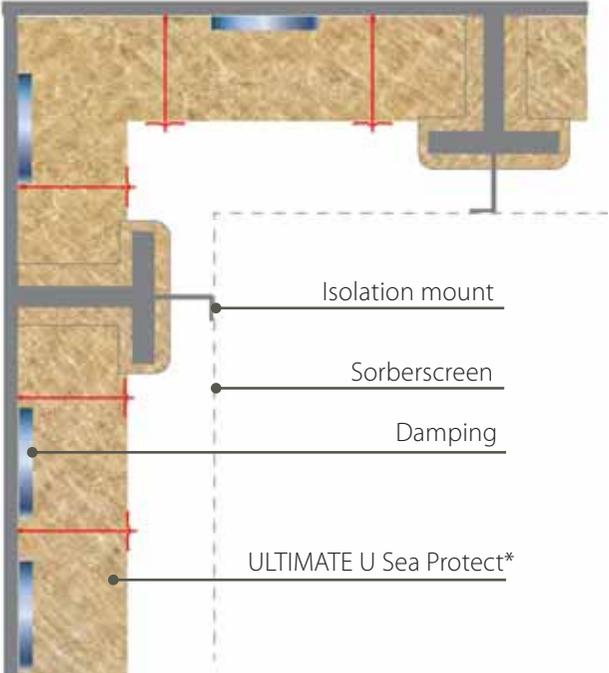
LINING OF VIP ACCOMMODATION AREA



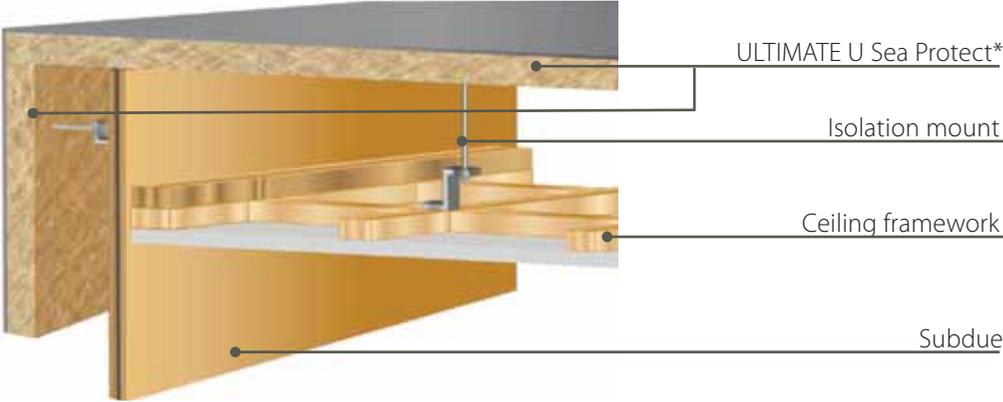
PARTITIONS



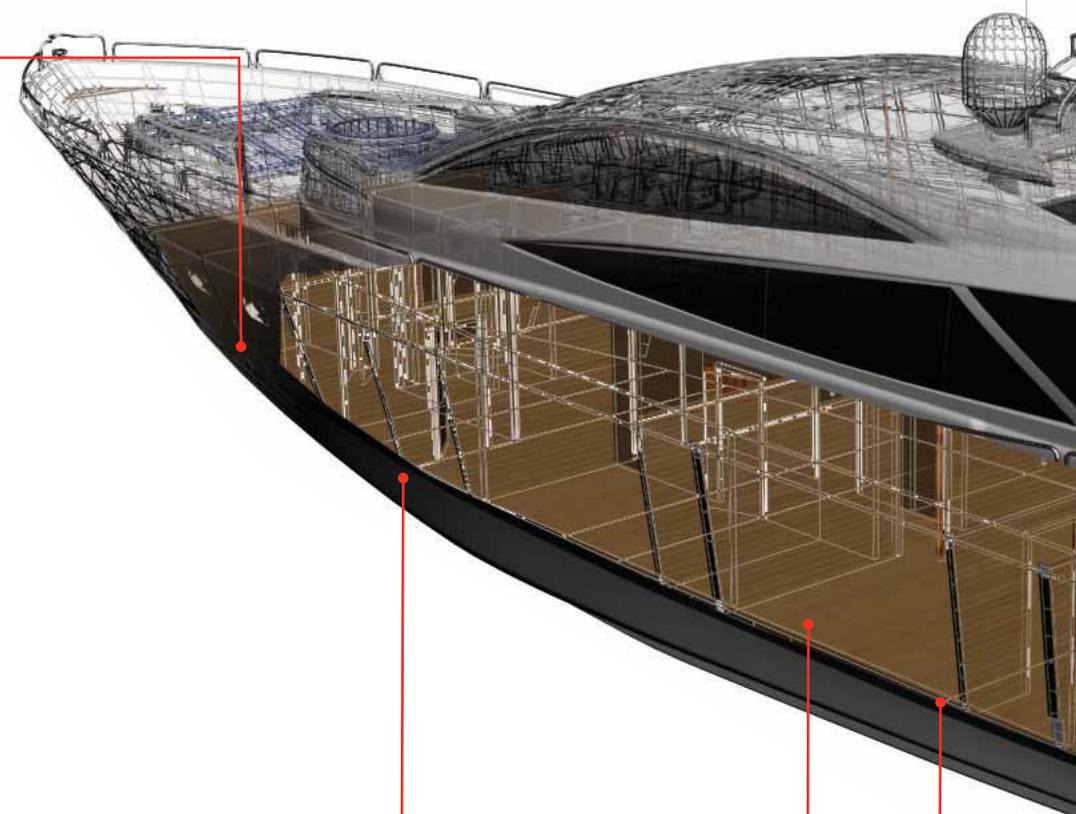
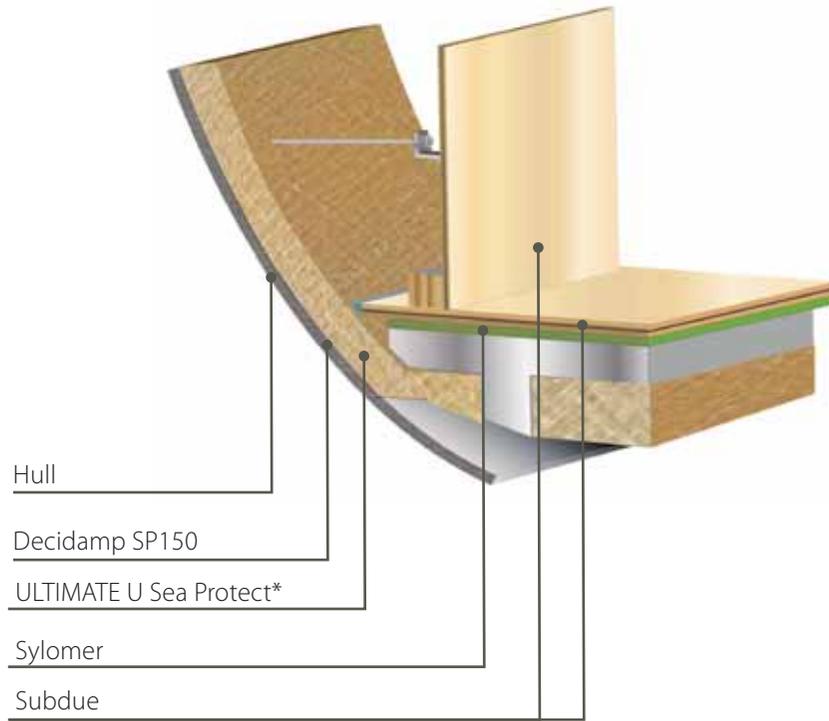
ENGINE ROOM VENTILATION



CEILING INSULATION

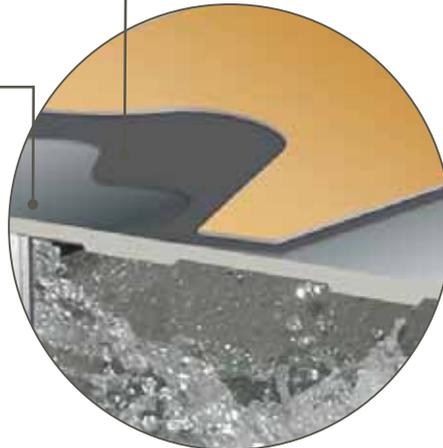


HULL INSULATION



INSULATION - ALL FLUID TANKS

Decidamp DC30 and counter plate or
Decidamp SP150
Bottom shell or tank top

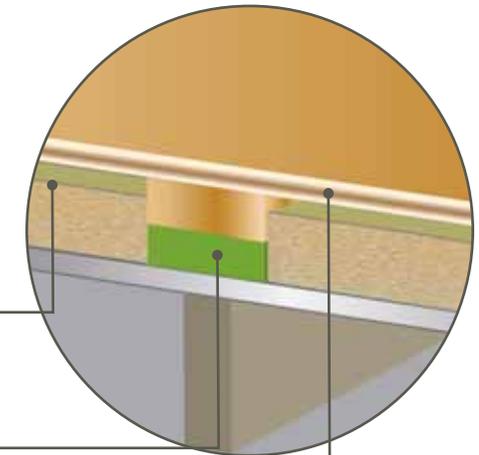


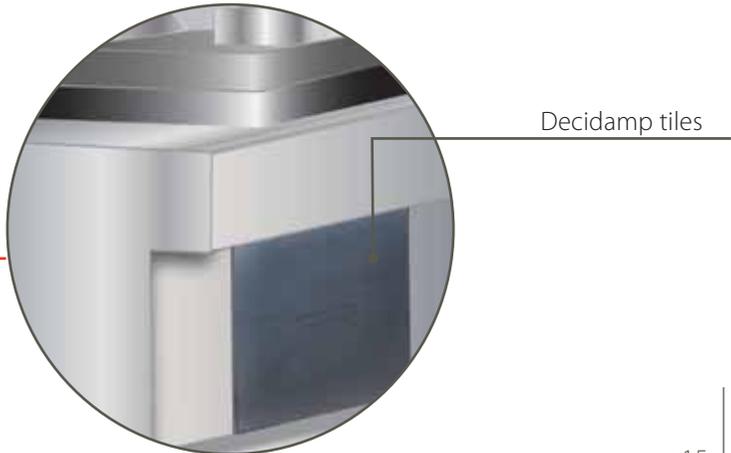
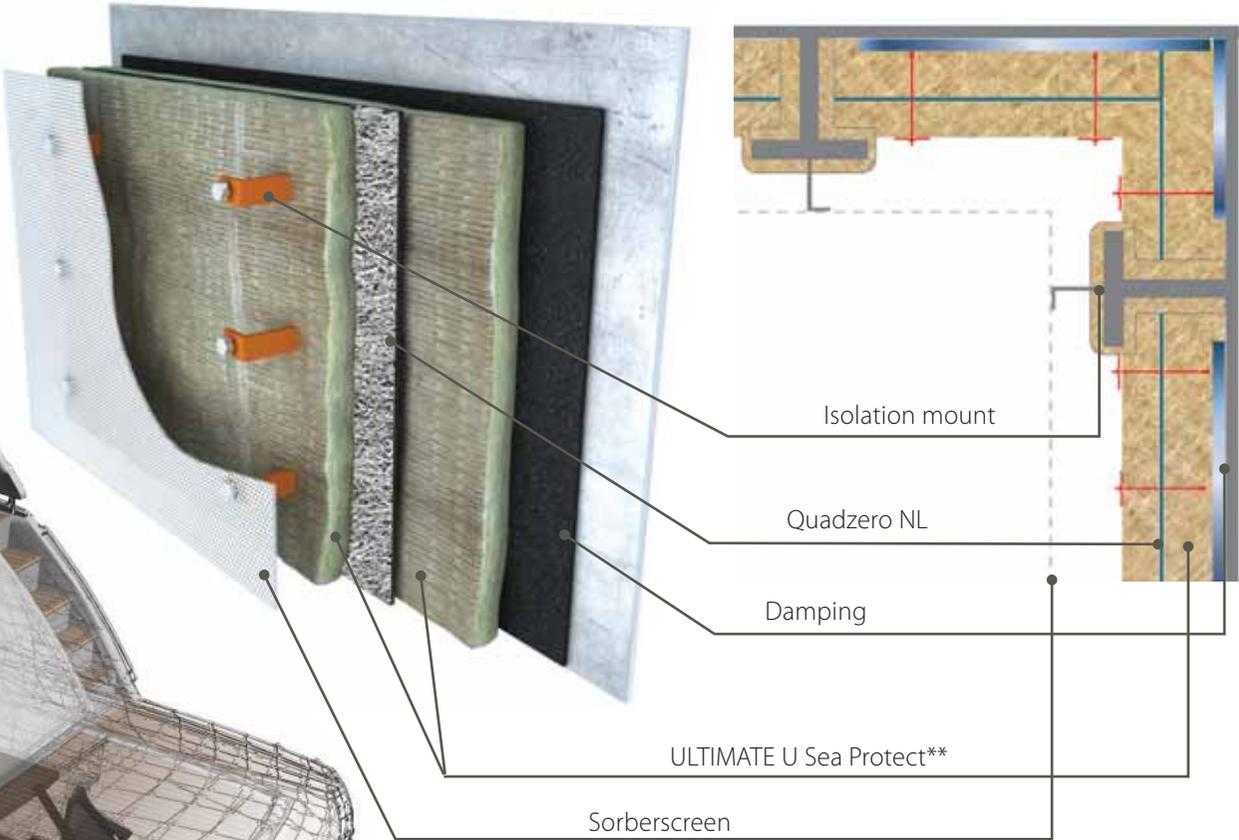
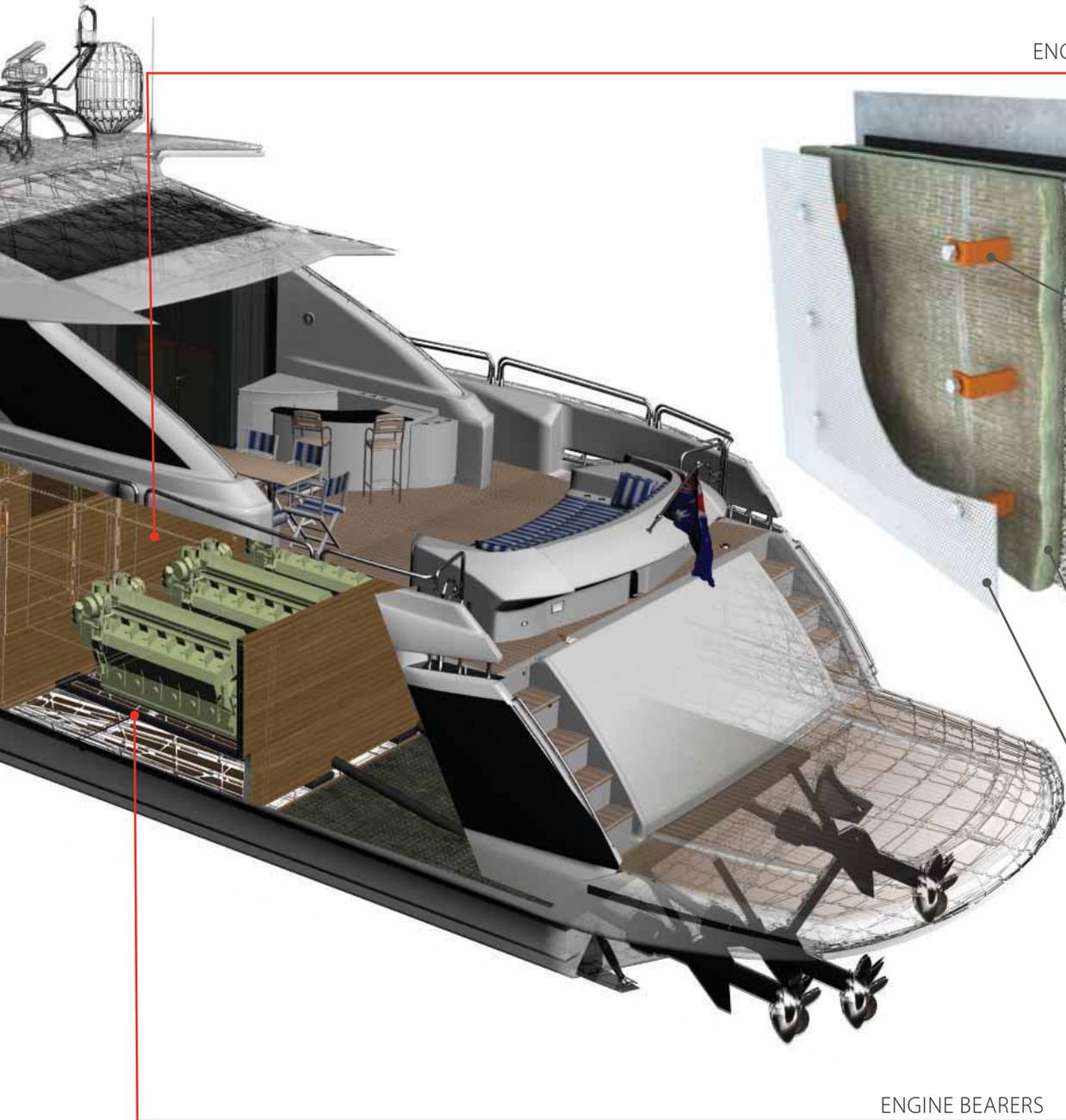
FLOATING FLOORS

Cavity infill insulation

Sylomer

Subdue acoustic panel***





ENGINE BEARERS

* Can be replaced with Sorberfoam, Sorberpoly, 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 depending on acoustic requirements

80+ locations in over 30+ countries

- Six research and development centres
- Five engineering centres
- Global headquarters in Spokane, Washington, USA

Pyrotek®

Product specifications, testing and certifications to a range of marine specifications to enable them to be used in surveyed vessels or for specific certification.

Check our Technical Data Sheets for product specific details via our website.

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, mechanical and fire engineer on data presented by the manufacturer. Due to the wide variety of individual projects, Pyrotek 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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