



Spirit Yachts is one of several boatbuilders moving away from teak to embrace other natural but sustainable products. The company recently announced it has selected douglas fir for its decks. This is a Spirit 111 under construction, the final yacht with natural teak decking

# **Decking for the future**

The need for an attractive, non-slip surface underfoot has led to several innovations in hard-wearing, UV-stable materials. With an increasing trend towards sustainable and lightweight products, there is now plenty of choice for the boatbuilder WORDS: JAKE KAVANAGH

# IN THIS SECTION

- 83 The widening choice
- 84 Natural teak
- 86 Sustainable cork
- 87 Modified timber
- 89 PVC teak effect products
- 91 EVA foam decking
- 91 Paints and tapes
- 92 Movers & Shakers

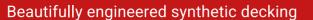
THE MARINE DECKING sector is going through an accelerated change as the supply of its traditional covering - agematured teak - comes under increasing pressure. Whilst the makers of teak decks are still able to source certified 'legal' timber, or have a large stock in reserve, the price is rising sharply. Big fines have been imposed on suppliers who have tried to bypass the strict new international

**FLEXITEEK** 

sanctions and other EU regulations on responsibly-sourced hardwood. As a result, more boatbuilders are now looking for cheaper alternatives that can offer much the same characteristics as teak.

Demand is also coming from the end user, the boat owner who wants to reduce their environmental impact. They are actively seeking hard-wearing and attractive decks that require little ongoing maintenance, are kind to bare feet under a hot sun, and haven't left an unfilled gap in a rainforest. Other factors are also at play, such as boat owners wanting more options for customisation and less weight to maximise electric range and reduce fossil fuel consumption. Thankfully, with advances in technology, there is now a lot more choice.

All the decking OEMs we spoke to had the same message - they are very, very busy, but those boatbuilders who have only ever provided teak decks are starting





The superyacht sector is also embracing alternatives to teak. This is a design created using Flexiteek. Note the marquetry possible with different shades of CNC-cut material



Decks can be designed and CNC cut into pre assembled modules and then simply bonded into place, saving the OEM time and money. This is a modular layout in natural cork from Marinedeck 2000

to offer teak-effect alternatives as well. Advances in PVC (polyvinyl chloride) and PU (polyurethane) decking materials have given boatbuilders a large palette of realistic (and radical) colours and textures to choose from. The decks are either pre-assembled as modules or laid down as 'planks' in the traditional way, but with the advantage of more flexibility. One leading OEM to provide this option is Sweden-based Hallberg-Rassy, which now offers Netherlands-made Marron EcoDeck. (The first boat with EcoDeck has already been built and will be on display at the Orust Sailboat Show/yard open day at the Hallberg-Rassy marina in Ellös from 26-28 August).

We've cast around for latest products and trends in all types of deck coverings and found that the surge in new orders, better machinery, stronger adhesives and a burgeoning refit market is promoting plenty of growth in the sector.

# The choices

Decks can be covered in a wide range of materials, from natural wood to non-slip paint. Here is an overview of what is available, and their average density

# NATURAL MATERIALS TEAK AND OTHER HARDWOODS



Hallberg-Rassy offers traditional

teak decks in planks and pre-

formed panels. The company

reports a good stock of certified

teak but also offers alternatives

Prized for its close grain and oily

nature, teak has long been used as

an attractive and functional deck

covering. Increased demand, less

supply and stricter regulations

have greatly increased pricing.

established long enough now

to provide a more sustainable

- although less tightly-grained -

alternative. Other hardwoods such

as Iroko are equally hard-wearing

Many OEMs are at pains to ensure

sources, especially with the current

geo-political situation in Myanmar.

and from less threatened areas.

their teak is from authorised

Density: Around 740kg/m<sup>3</sup>

CORK

although plantation teak has been

means the material is immediately recognisable as cork, it can also be disguised to some degree with seams and patterns. Cork is also a good insulator, and relatively lightweight, so aids fuel economy. Density: 240kg/m<sup>3</sup>

# MODIFIED TIMBER



Modified woods can create an elegant deck with good grip and with claims of all the characteristics of teak - but without the pricetag. This is TMT Marine's thermowood

Cheap and plentiful timber such as douglas fir and maple can be treated with heat - and sometimes with chemicals - to create decking and cladding products with properties similar to teak. The main market is for land-based architectural projects. but some companies offer products adapted for marine applications as well, especially external decks. The processing also prevents warping and splitting and minimises fungal growth. Density: (typically) 650kg/m<sup>3</sup> (Pine radiata 480kg/m<sup>3</sup>

# PVC/PU



Cork decking made from larger grains, such as this covering from Marinedeck 2000, offers the best impact resistance

A fast growing, renewable and fully recyclable bark product, cork is compressed and bonded into sheets from which planks are cut. Cork decking is surprisingly hard wearing and the larger the granules, the tougher the deck. Whilst the granular nature also

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PU extrusions are particularly good at covering large areas of deck. This is a Boldit product, Futureteak, which has superyachts and cruise ships as its main markets

Polyurethane (PU) and PVC (polyvinyl chloride) products provide a hard-wearing and long-lived deck covering with the advantage of being able to be coloured and textured in an increasingly wide palette. These materials form the basis for

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most artificial deck coverings today. with the PVC versions most closely resembling the texture and grain of natural wood. Other advantages include resistance to most (but not all) marine chemicals or fuel spills, good grip even when wet and good insulation. Some later products, such as Flexiteek's 2G are also engineered to reduce thermal transfer and so cool 30% faster than earlier 1G versions. Large amounts of artificial decking are now used on cruise ships.

Density: 4.5-6kg/m<sup>2</sup> (average of 5mm thickness).

# **EVA FOAM**



EVA foam is very light and easy to cut and route, so ideal for performance boats. This is Ultralon. a product made in New Zealand

Closed cell Ethyelene-Vinyl Acetate (EVA) copolymer foam has a wide range of uses in industry and is seen a good substitute for natural rubber, vinvl and neoprene products. When used for decks, EVA is easy to machine and withstands weathering and spills of marine chemicals and fuel, whilst also giving good impact resistance. Whilst not usually as long-lived as PU extrusions, it is usually cheaper, lighter and quite easy to replace.

Density: 0.4kg/m<sup>2</sup> (average of 6mm thickness)

# RUBBERISED MATS

Made from a range of both natural and manufactured materials, rubberised mats are typically supplied in 1m<sup>2</sup> sheets which usually have a non-slip pattern embossed onto one surface. The sheets are then cut and shaped before being bonded to a deck. Widely used in commercial applications, these mats also offer an attractive alternative for leisure craft

Density: (natural rubber) 920kg/m<sup>3</sup>

Rubberised mats such as this cork and rubber Treadmaster brand from Tiflex are most often found on working boats and RIBs



NON-SLIP PAINT



Easy to apply and colour match, deck paint like Kiwigrip is aimed more at the DIY market

Non-slip deck coatings are available in several different chemistries, such as a rubberised paint with suspended non-slip granules, single-pack polyurthane with fine sand/aggregate included, or acrylic paint that can be etched with a pattern as it dries. The big advantage of these coatings is they are easy to apply, there is the ability to colour match to the boat's decor, and replacement is usually a simple matter of overcoating. Density: Varies between 1.0-1.5kg/lt covering around 13m<sup>2</sup>

# **NON-SKID TAPES**



Marine and industrial self-adhesive tape includes transparent types for fitting over hatches. This is a range of coloured step tapes from 3M

Self adhesive non-skid tapes make a practical finishing touch. There is a wide choice of dimensions and colours, and the tapes can be applied to docks and trailers too. Density: Varies widely between 640 -1,700 gram/m<sup>2</sup>.



Despite the rising cost of teak, many owners still prefer it as the ideal deck material. Precision inlays around deck fittings add to an attractive deck

# NATURAL TEAK

With advanced design, scanning and CNC (Computer Numerical Control) software, the decorative possibilities of a new teak deck have become almost infinite. Nor is this design ability the reserve of the superyachts – even the smallest cruisers can now have marquetry patterns or embossed logos and writing inserted

into the timber or furniture with comparitive ease.

Two companies that specialise in advanced machinery and complex designs are Netherlands-based Bloemen de Maas and Italy-based Duca Solutions.

Trading with

the legend 'No teak deck is impossible' Bloemen de Maas has long invested heavily in precision CNC machines working from Rhino 3D design software to allow full creativity for teak decking. "Our aim is to be technologically advanced without losing sight of our craft," their brochure explains. A key advantage of this type of precision cutting is a tolerance of just o.Imm and a



A common practice is to assemble some of the smaller teak decking panels in jigs before fitting to the boat



high degree of templating accuracy using portable digital equipment by Prodim (see panel).

Also delivering highly complex designs and inlays is Italy-based Duca Solutions. The company has recently expanded its CNC infrastructure with a new 6m machine. Duca Solutions says that CNC machines go way beyond the

Our aim is to be

technologically

losing sight of our craft

advanced without

ability to create virtually any design imaginable. Other advantages include consistent quality, boosting production times, staying on budget and increased safety for the technical team.

# MODULAR ASSEMBLY, MINIMAL WASTE

A growing trend is to supply the boatbuilder with prefabricated deck panels, which allows for minimal installation time as most of the work is done off site and under tightly controlled conditions. Customers are kept involved in the process all the time by being able to see the computer-generated graphics of how the finished deck will look. Once again, CNC cutting comes into its own by



Sikaflex's product engineer, Gareth Ross, helps restore a classic boat with Sikaflex 290DC. The decks in this case are Iroko. The 290DC doesn't need seam lining tape and is UV-stable

minimising the waste involved when the planks are cut, making the best use of the material available.

# STRONGER ADHESIVES, BETTER CARE

The days of screwing teak planks directly to the deck are long gone, especially good news as leaks occured when the screws moved with age. Now the teak is usually bonded to a prepared substrate. Vacuum bagging is an increasingly popular process to ensure an even finish with minimal finishing required. To assist the bonding, there is now a wide range of modern adhesives which are claimed to be strong and flexible enough to outlive the teak they are bonding. The sealants are equally robust and flexible, such as Sikaflex's selflevelling 290DC deck sealing compound. There is now no need to place tape along the bottom of the seam, which was a time-consuming detail.

Meanwhile, teak decking OEMs are keen to educate their customers in how to extend the life of their new decks. UKbased Berthon, for example, recommends the teak receives an anti-fungal wash once a year, and encourages owners not to let the decks get too dirty. Sanding weathered decks is discouraged.

# Beautifully engineered synthetic decking

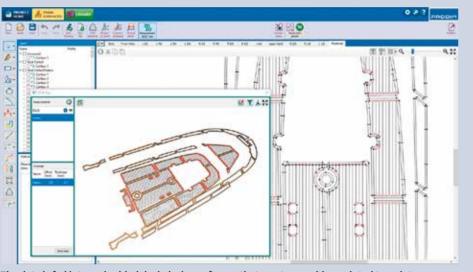
84

# **Prodim's Proline** digital templater

SEVERAL SECTORS WITHIN the marine industry are now using the Proline Digital Template machine, made by Netherlands-based Prodim Systems. The equipment fits into a standard backpack and is battery powered, allowing it to be used in remote, off-grid locations. Prodim says the Proliner has been developed for all types of measurements, including windows, canvas awnings, railings, and decks. A speciallydesigned probe known as the IPT (Inverted Pen Technology) allows measurements within hard-to-reach places. The data collected is then compiled by the Proliner's embedded software and can then be manipulated in a dedicated desktop programme to create the finished design. The templates needed for the cutting can be sent to compatible machinery that cuts them from a stable transparent material. In addition to the bundled software. Prodim supplies several accessory options with each kit, depending on the application. For decking jobs, Prodim developed 'Factory Decking' software that provides a large number of patterns and design tools. Combined with the Proliner, this allows professionals to greatly reduce on-site time, minimise errors and be less dependent on consumable templating materials. More at: prodim-systems.com/industries/marine



The portable pack includes a pen that allows for accurate measurements within awkward places. The system cam also be used for templating windows and canopies



The data is fed into embedded deck design software that creates machine-printed templates

# CORK

Cork is the outer bark of the cork oak tree. species Quercus suber. Although it has long been used in marine applications, particularly in sound insulation, it is now enjoying more attention due to being highly sustainable and entirely recyclable. As nature's version of closed-cell foam, with some 40 million air-filled cells in each cubic centimeter, cork has a number of properties making it ideal as a decking material. These include elasticity, impermeability, vibration resistance, minimal density and good insulation. The magic component of the cell walls is suberin, a mixture of organic acids that prevent the

passage of water or gasses. Suberin is totally insoluble, not just in water, but also in alcohol, ether, chloroform and virtually every acid found on a boat. This explains why cork is so resistant to the marine environment.

The first bark harvest takes place when the tree is 25 years' old, and every nine years after that. As each tree can live to be 300 years' old, the cork is very much

a long-term renewable material.



Tanja Kattinger, CEO and founder of Cork Solutions: "Demand for our oceancork is steadily increasing as it is a sustainable and attractively priced alternative for leisure boats"

# Beautifully engineered synthetic decking

# The teak supply

CONSUMERS OF HARDWOODS, whether for furniture, flooring or decks, have become increasingly concerned about the sustainability of the supply. Deforestation is a major environmental concern, although some governments have managed to reverse the problem with well-managed teak plantations. The political situation in Myanmar – supplier of the highly prized Burmese teak – has led to a boycott of supplies as the military government is embarking on a massive deforest programme to fund their ongoing coup. Australia-based Nauteak, typical of all reputable OEMs, reassures customers that it only uses certified 'legal' teak in its range of marine furniture.

"Nauteak Marine's products are manufactured from teak sourced from



Cork is harvested every nine years by skilled cutters. No machines are used, and the cork acts as a CO2 sink as it grows back

Even the harvesting is green. No machines are used, just skilled human cutters. The largest producer is Portugal, accounting for 50% of total global cork production from an estimated 5.3 million acres of cork-oak forests.

Whilst the wine bottling industry is the largest customer, companies such as Stazo Marine, Multicork Solutions and Seacork also buy in certified raw material for use in decking products.

Cork can be used in its natural state, or combined with rubbers and sealants for a more robust and longer-lived covering. Relatively inexpensive when compared with alternatives, cork offers good grip underfoot, even when wet, won't get particularly hot in direct sunlight, won't catch fire, and resists most 'leisure' spills, including red wine, suntan oil, petrol and diesel.

Indonesia, where teak has been grown in 'Legal' teak, whether planation or 'old

plantations for over 200 years," their literature explains. "The Indonesian government owns and manages 3.2 million acres of sustainable teak plantations, which provide an important environment to many wildlife species. An estimated 500,000 local people depend on teak production for their income. Because 100% of our teak is sourced through Indonesia's Forestry Department, we have complete transparency of the supply chain." grown', will carry an internationally-recognised certificate to trace its journey from 'stump to yard' as part of a global effort to minimise illegal logging. Large fines await anyone who tries to bypass the certification process.

This versatile material is currently sharing the same trends as teak and faux teak alternatives. For example, cork decking can be supplied as pre-made modules, unpatterned sheets, single planks, or to CNC-cut designs. The material is also easy to cut and shape with a craft knife, making it ideal for DIY installations.

# MODIFIED TIMBER

Emerging as a viable alternative to traditional teak decks is heat-treated. non-tropical hardwood. The process to remove (or replace) the water content has been around in various forms for a while. with names such as Netherlands-based Accoya and US-based Kebony pioneering land-based use, but the teak supply situation has intensified marine demand. Apart from a lower price, modified wood has impeccable green credentials as the raw material is sourced from managed and sustainable forests. Whilst some of the earlier types were for architectural applications, and lacked the resistance needed for a saltwater environment, the products have since greatly improved. The latest kiln treatments now create stable and machinable products, highly resistant to cracking, rot and fungi and with many of the aesthetic characteristics of natural teak.

A modified wood that is making big inroads into boatbuilding - and also into the cruise ship sector - is from Majorca-based TMT Marine SL. The

Cork is a surprisingly hard-wearing and

on an Oysterhaven

high-grip decking material that is also a good

insulator. This is a Marinedeck 2000 installation

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Treating a deck, such as this one from oceancork, extends the life and can also darken the colour to match hardwood trims

# **Treating and** glueing cork

ALTHOUGH CORK IS a very robust material, its life can be extended by applying a coating. Being non-absorbent, the cork keeps the coating on the surface making it easier to renew. "For bonding the decks, we recommend the Bostik product range of bedding compounds and adhesives," says oceancork's MD Tanja Kattinger. "For additional protection, we recommend treating the deck with a twocomponent polyurethane coating, formulated by Epifanes. This reduces maintenance and increases resistance to environmental influences. The cork sealer is a low-aromatic. high-gloss, clear two-component coating with a UV filter. It protects against weathering, scratching and greying. The good flow of the sealer allows it to be applied with the help of a brush or roller. After the deck has been cleaned and dried, the two components are mixed in ratio (9:1), slightly thinned and applied with a wet thickness of 60-80my. Best results come from using a good quality brush or roller, ideally out of direct sunlight and avoiding strong winds to minimise rapid solvent evaporation. If desired, a 10% mahogany or teak stain can be added. When providing decks, we work with companies that offer various services, such as calculating the consumables, CNC cutting, processing and laying the decks."



Spirit Yachts was one of the first boatbuilders to use modified timber as decking. The result was stylish and durable



TMT Marine's thermowood is maple grown sustainably in the US and carefully guarter cut for the most decorative grain

founder and MD is Xavier Ardevol, a former teak import specialist with over 30 years' experience in supplying tropical hardwoods to boatyards. Seven years ago, as sourcing certified teak became increasingly problematic, he began working with Neil Summer of the AHEC (American Hardwood Export Council) to develop a dependable alternative derived from US-grown maple. After exhaustive testing, the marine thermowood was launched at METSTRADE in 2018, and the product has been constantly refined ever since. Originally part of Select Timbers, the marine division is now set up as its own company, TMT Marine SL. "To get the right quality of original timber, it needs to be quarter-cut correctly," Xavier told IBI. (Quarter sawn timber is where the annular growth rings intersect the face of the board between an angle of 60° to 90°). "American saw mills are all about volume



Xavier Ardevol has spent seven years developing Thermowood after a long career in teak imports



Whilst not a modified softwood, Evoteak from the Italian specialist Nord Compensati is described as 're-engineered teak' to create a machine-workable material with a convincing grain and texture

cutting, so I toured the US with Neil Summer to find one that could quartercut to my specific marine requirements. The wood is then treated in the US, with no chemicals involved - just specific temperatures over set times. We have hit on exactly the right moisture content to make the product highly machinable and vet very hard wearing. Even from Im away, the result is often mistaken for natural teak. The treated wood is then shipped from the US directly to our network of exclusive distributors in each country. Our list includes Robbins Timber in the UK. Alfred Newman in Hamburg and Maderas y Chapas Blanquer in Spain. Sales to major shipyards are increasing, including to the superyacht sector, but we are also selling to the cruise ship industry. The planks are a good length, usually 3m long, and in all the standard and wide-cut profiles. With planning, we can currently source four containers a month, each holding 1,500m<sup>2</sup> of 25mm (1in) standard planking, but we can increase this volume as the company develops. We have recently launched a new website with plenty of technical information, and at METSTRADE 2022 we will be exhibiting our first TMT 1.5mm veneer."

With thermowoods carrying zero risk of FSC import violations, several major boatbuilders are already using these

Beautifully engineered synthetic decking

products, and other natural woods, as decking alternatives.

"We have been looking for a viable decking material as an alternative to teak for a while now," says Spirit Yachts MD, Karen Underwood. "After much researching and testing, we have chosen douglas fir for all our natural decking requirements moving forwards. We have been working with this versatile timber as a hull building material for many years. It has proven credentials for use on yachts and we are happy with the grain and colour properties for decking. As a natural timber, there are no resins or chemicals involved in its production, it is commercially grown in responsibly managed forests and the supply chain is secure."

# PU AND 'FAUX TEAK'

An area showing expansive growth is artifical teak made from PU or PVC, currently with five main suppliers - Bolidt and Herculan in the Netherlands (PU), Flexiteek and Permateek in the UK and Plasdeck in the US (PVC composite), although there are several other smaller companies operating successfully in the sector. The products are available in a range of colours, textures, profiles and widths, leaving the boat owner rather spoilt for choice. According to the specialist fitter Elite Teak, the most popular choices are either decks that mimic a freshly-scrubbed teak deck or the distinguished grey colour of a weathered one. One OEM, Flexiteek, can also supply greater thicknesses to be machined into colour-matched caprails and rubbing strips.

What is very apparent is that these faux teak decks are moving rapidly into the superyacht sector, an area known for



PVC composite decking such as this example from Flexiteek offers not only 5mm decking planks, but also the thicknesses required for caprails, trims and even solid handles for a complete colour match

FLEXITEEK







WWW.CLION-MARINE.COM



To address the growing demand from superyachts, Flexiteek will be opening a new manufacturing and training base in Sneek in autumn 2022

its traditional tastes, but now embracing sustainability.

"Stepping onto a pristine deck is a pivotal moment for any boat owner and dictates the build

characteristics of any boat," savs Flexiteek's deputy CEO, Chris Berry. "For years teak has been the gold standard for boat decks. Worldwide boat production has surged into the tens of thousands of decks every year, and demand

90

for teak has grown to the point where harvesters began felling trees faster than they could grow back. So in 2000, because of the demand in the market. Flexiteek set out to re-invent teak decking. The result - a patented product that looks every bit

as beautiful as traditional teak. Flexiteek is available in stylish, contemporary colours, with the option of customised designs, lettering and logos. It has been designed to be safe and comfortable in extreme conditions and will last for many years with minimal maintenance."

The versatility of the material has made it attractive to the owners of larger yachts, prompting new premises and a dedicated training programme.

"Flexiteek already works with over 200 of the world's leading boatbuilders across a global distributor network," Berry continued. "This year we have established 'Flexiteek Supervacht' after acquiring F<sub>3</sub> Flexiteek Friesland who supply many of the leading Supervacht producers in Europe. The acquisition adds an established fabrication centre using the

latest CNC technology.

Worldwide boat production has suraed into the tens of thousands of marine decks each vear

In addition, work has started on a new 4,500m<sup>2</sup> state-of-theart factory in the city of Sneek, the Netherlands, which will be ready for business in autumn 2022. The new factory will provide extensive training facilities in

central Europe and will enable Flexiteek to dramatically increase production capacity."

Flexiteek has also established a new manufacturing operation, 'Flexiteek Marine Products' in Ostroda, Poland, in early 2021.



With an eye on sustainability, US-based Plasdeck offers its Eco Series, which has a base layer made up of post-industrial reground and recycled Plasdeck scraps. Ideal for the houseboat and pontoon boat markets, the Eco Series is available in rolls of up to 63ft long and 6-inch increments in width

Permateek is also expanding. The company was founded in 2004 using a third-party product, but such was the demand that in 2012 Permateek opened its own production facility which resulted in many improvements to the quality. "The business continues to grow rapidly each year," explains Permateek's Kayleigh Harding. "In 2021 we moved to our next manufacturing unit in Ringwood, doubling the warehouse footprint for production



JUNE–JULY 2022 | International Boat Industry

The different colours and textures available in PU extrusions allow for natural-looking decks. Here are two examples from UK-based Permateek, which reflect the two most common trends - a deck that has 'matured nicely' by 'natural' weathering (left) and a 'just scrubbed' teak deck (right)



Plasdeck's Performance 3.5 is a lightweight PVC decking designed for fast craft



US-based Marine Mat offers detachable EVA foam decking panels

and stock capabilities. Today, we are now running on four extrusion lines and have over 85 distributors of Permateek throughout the world. Since Covid, where we had our record breaking month, the demand for Permateek continues and we are vet to see a reduction in enquiries from potential distributors, including boat builders and the end customers."

Acting on feedback from its distributors, Plasdeck has created its performance 3.5 range, described as the 'lightest synthetic PVC decking in the world'. Compared to standard PlasDeck at 5.8kg/m<sup>2</sup>, the Performance brand weighs in at 3.5kg/m<sup>2</sup>, making it ideal for high-speed craft. The product continues to use patented nonmigratory plasticisers that are physically bound together at the molecular level and so keep the product flexible over time.

# MARINE MATS

Decking doesn't have to come as planks. Panels made from EVA foam are proving a lightweight and decorative solution, with the ability to be CNC cut into a variety of shapes. Some, such as US-based Marine Mat, have detachable panels in their 'Snap-It' series that can literally be put down only when needed, and so extend their lifespan.

The foam is provided as a two-layer laminate, usually with a dark underside,



allowing the router to cut through the decorative outer layer to reach the darker foam below. The main advantage of EVA foam is it is very light and comfortable to walk on, and less expensive than PU extrusions. The only drawback is that it isn't as hard wearing, but this is less of an issue on leisure craft as opposed to commercial craft.

Several companies offer bespoke design and cutting services, allowing the boat owner to have a unique pattern cut into the decking to fully personalise the boat.

# PAINTS AND TAPES

Perhaps the quickest and easiest way to apply non-slip to a deck is by using paint. Several paint manufacturers supply their own versions of non-slip paint, and usually in a very limited range of colours as boat owners can tint the base white to any shade they desire. Leading brands include International's Interdeck (single pack), Nautix Grip (two-pack), Teamac's Suregrip and Hempel's Non-Slip Deck Coating. In addition, several manufacturers supply their own sachets of additive, either finelydried and sifted sand or artificial beads known as 'pearls' to roughen up colourmatched paint. Jotun's Anti-Skid Additive, for example, is made from aluminium oxide particles, much the same as is found on leading brands of sandpaper.

When it comes to tapes, whilst there is a huge choice of industrial versions, the types dedicated for marine use are more limited. One of the largest suppliers is US-based 3M, which also offers transparent tapes for use over hatches. The tapes are invariably self-adhesive, and also have roles off the boat, such as on stepping points of trailers, or on the dockside. IBI



EVA foam is very lightweight and







One-pack deck paints have proved a dependable, low-cost and lightweight solution for years. Teamac's Suregrip and AkzoNobel's International Interdeck are good examples. Both contain pre-added aggregrates that give a roughened surface, and have a coverage of between 6-10m<sup>2</sup> per litre. The basic five-colour choice can be expanded by tinting the white



Introduced for DIY jobs during lockdown, the new pack from New Zealand-based KiwiGrip provides all the materials and instruction needed for using this acrylic product

# Beautifully engineered synthetic decking

# Movers and shakers Deck coverings (wood, PU and mats)

# Natural teak

**BLOEMEN DE MAAS BV** 

Founded in the Netherlands in 1982, Bloemen de Maas creates bespoke decks, caprails and furniture in natural teak. mainly for the superyacht industry. bloemendemaas.nl

## COMILEGNO

Established in Italy for over 40 years, Comilegno specialises in manufactured products for yacht decks in a variety of exotic timbers, mostly natural teak but also sapele, khaja and mahogany. comileano.com

### DUCA SOLUTIONS

An Italian manifacturer of teak decks and furniture for superyachts using advanced scanning and CNC cutting with a network of local teak decking centres in popular yachting locations. ducasolutions.com

### MARRON JACHTBOUW

Marron Yachtbouw began as a Netherlands-based yachtbuilder in 1997 but now focuses on pre-fabricated deck panels in natural teak, specialising in weight savings. marronyachtbouw.com

### NORD COMPENSATI SRI

Founded 50 years ago in Italy, Nord Compensati designs and manufactures a wide range of decking panels, veneers, soundproofing panels and spares for Riva classic boats. nordcompensati.com

### ROYAL DECK

Royal Deck was founded in the Netherlands in 2004 and specialises in producing and installing natural teak decks, capping rails, stairs and other joinery work predominantly in superyachts. royaldeck.com

### TEAK DECK COMPANY

Describing itself as the second largest teak deck manufacturer in the US, the company was founded in 1996 and offers teak deck panels and teak furniture to boatbuilders. teakdeckcompany.com

TEAK DECKING SYSTEMS Based in Florida, Teak Decking Systems developed the use of pre-fabricated modular teak deck panels to speed up deck assembly and also offers associated products and training. . teakdecks.com

## Natural or modified wood

**BELLOTTI** Founded in 1927, Bellotti is an Italian company specialised in marine plywood,



Hallberg-Rassy is offering Marron EcoDeck as a PU alternative to its traditional teak decks

composite wood panels for yacht building, transportation and building. info@bellottispa.com

### KEBONY

Norwegian company founded in 1996 to develop wood polymer technologies. Now transforms sustainable softwood products into hardwood using a bio-based liquid. Info@kebony.com

### LEEWENBURGH FINEER BV

Dutch company specialising in veneers. Producing mainly domestic floor coverings but has a bamboo deck covering suitable for exterior boat cockpits. leeuwenburgh.com

### TMT MARINE

Based in Spain, TMT Marine SL is part of Select Timbers and imports thermotreated maple from the US for creating specialised marine decking products and trims. www.tmtmarine.com

### Cork

### MULTICORK SOLUTIONS

Founded in Bremen by Tanja Kattinger in 2003, Mutlicork Solutions offers the oceancork brand for decking material, along with industrial cork products such as soundproofing. multicork-solutions.com

### MARINE CORK

Italian company in business for over 40 years providing cork-based decks, most commonly in CNC cut panels of either 6mm or 8mm.

marinecork.com

# STAZO MARINE EQUIPMENT

Netherlands-based Stazo Marine Equipment produces planks and custom panels branded Marinedeck 2000 made from compressed granules of natural cork held in a polyurethane binder. marinedeck.n



EVA foam such as this Wässerdeck is easy to route into an infinite number of designs

### SEACORK

Based in France, Seacork manufactures a wide variety of cork flooring products including decking strips and panels. The emphasis is on large granules and less binder. seacorkfloor.com

## Artificial wood/Faux teak

Established in the 80s in Italy, API SpA has more recently has developed artificial teak decks for large cruise ships. Brands include Flixigel, LH cool-deck and Syntheteak. api-spa.com

# BOLIDT KUNSTSTOFTOFPASSINGEN BV

Dutch manufacturer of a wide range of PU and resin deck coverings, notably on cruise ships but the Esthec brand is also used in superyachts. Products can incorporate LED lighting. bolidt.com

## FLEXITEEK

A long-established Swedish brand providing PVC faux teak panels, planks and trims. Incorporated Wilks 'Dek-King' range in 2019 to add to its Flixiteek 2G and Isiteek brands. flexiteek.com

### HERCULAN MARINE

Dutch-based company providing hard-wearing decking soutions for the commercial and cruise ship sector, but the M-Ecodeck range is well suited to large yachts, especially Explorer types herculan.com

### LONSEAL

A subsidiary of Lonseal Corporation in Tokyo and established in Southern California in 1972. Creates a wide range of marine flooring, including teak effect and vinyl mats lonseal.com

### NUTEAK

US-based manufacturer of PVC teak effect deck systems and also produces real timber interior flooring. nuteak com

## PERMATEEK

UK-based manufacturer of PVC wood-effect decking available in 14 colours and three caulking shades. An early adopter of

brightly-coloured teak effect decking. permateek.com

### PLASDECK

Based in Ohio, USA, PlasDECK produces a wide range of flexible PVC decking in a selection of colours and seam sizes. The PlasDECK Eco brand is said to use 60% recycled materials. plasdeck.com

## ROSCH VACHTS

Two friends passionate about watersports founded Rosch Yachts in 2010. They used their 20 years of experience in plastics engineering to create their own brand of PVC decks. rosch-yachts.de

### SEA DEK

US-based manufacturer of a range of faux teak and sheet material deck coverings, with an exmphasis on customisation. Many associated products, such as motifs. seadek.com

### ULTRALON

A New Zealand-based manufacturer of closed cell EVA foams for industry with a range of foam-core deck coverings sculpted by CNC. Brands include U-Deck, U-Dot, U-Tread and U-Deck Surf Grip. ultralonfoam.com

WASSER-DEK Producers of foam-backed vinyl decking sheets in a wide range of colours and skinned with a non-slip surface. Customers can access a full custom CNC cutting service. info@wasserdek.co.uk

## **Rubber/composite** sheets

### MARINE MAT

Florida-based Marine Mat was founded in 2014 and produces a 'Snap-It' and 'Stick-It' series of mats that can be attached just like a carpet. marinemat.net

### TRAKMARK

One of the pioneers of rubberised sheets for boat decks, Trakmark TR was originally developed by UK-based Dunlop in 1965. Now specialises in flexible PVC wood-effect decks. trakmark.co.uk

### TREADMASTER

UK-based manufacturer Tiflex is well known for its diamond-pattern rubber/cork mats, but has since added Atlanteak faux teak and a luminous Glowtec deck covering to its portfolio. treadmaster.co.uk

### VETUS

Dutch equipment supplier and manufacturer offering a range of patterned rubber composite non-slip . deck pads vetus com

