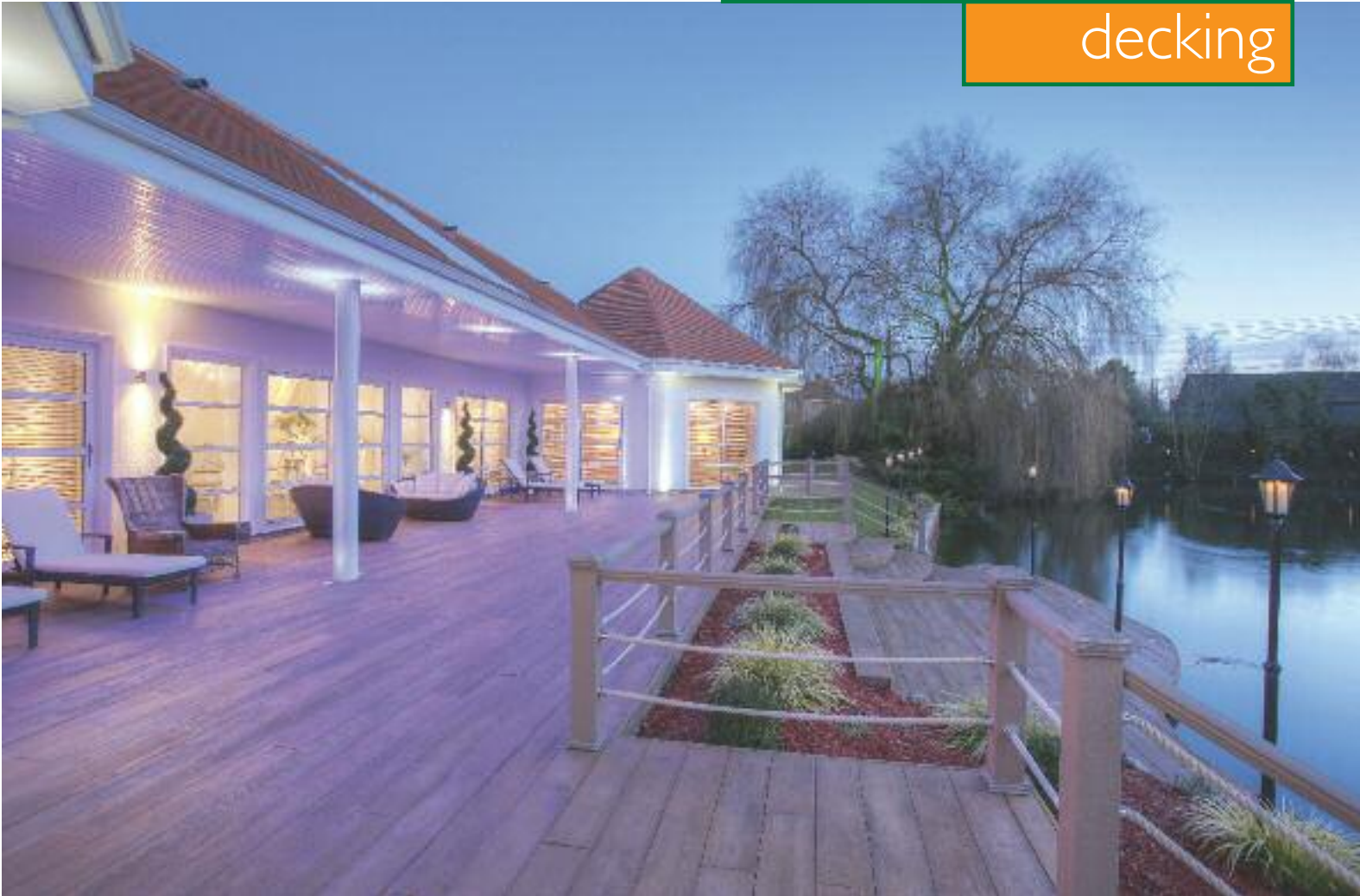


Uniclass L81215:P511	EPIC Q13:X52
CI/SfB (90.41) Hi3	

millboard®

decking



summer 2011



Millboards are wood-free...



...yet capture the natural beauty and charm of natural timber.



Millboard decks are virtually maintenance free*, as they do not host algae growth, and no upkeep is required.

*see page 33



Millboards are renowned for their excellent anti-slip properties*.

*Meets BS79.76 standards.



Millboards are eco-friendly, made using reclaimed materials.



Millboards will not rot, splinter or warp, and are UV stable*.

Millboard... the new generation of decking.

*Tested to BSEN ISO 4892.2

the product...



millboard...

Capturing the charm of real wood but eliminating many of its shortcomings for outdoor environments, Millboards are moulded from prime oak samples, replicating the beautiful qualities of the originals rather than just extruded from a machine, as standard composites are. Each board is hand-finished to reproduce the detail of natural wood with minimal repetition and can be sawn and fitted like wood.

the new generation

The textured and resilient surface of the Lastane™ finished Millboard is unique in that it provides a tough, algae-repellent surface which greatly enhances slip resistance in wet conditions to provide possibly the safest natural looking 'non-timber' decking board available. All Millboards have no wood content to feed algae growth, algae makes decking slippery. Due to its non porous nature it needs little maintenance other than an occasional wash. It's very stable composition and fade resistant finish ensures it as a highly weather stable product, produced and finished to the highest standards. Millboard is well suited to leisure industry, such as hotels, pubs, clubhouses, outdoor smoking facilities, as well as domestic use.



Millboard,
designed and
manufactured
in the U.K.

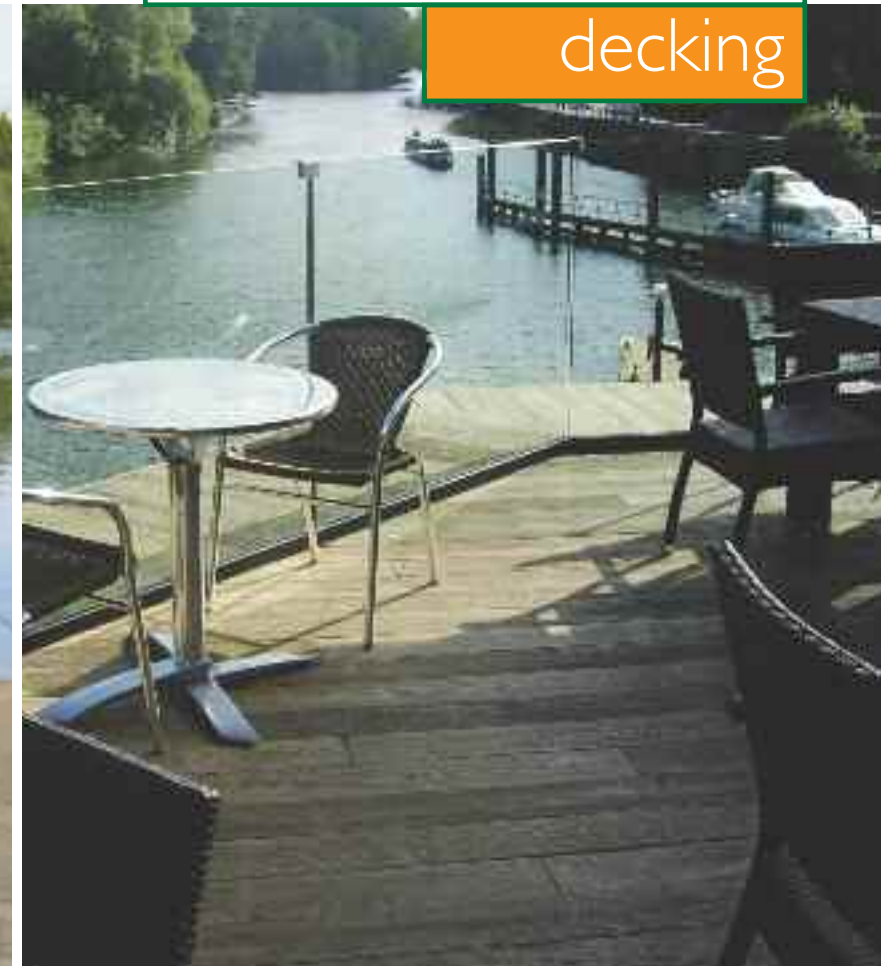
the Millboard composition



Not to scale - all dimensions are nominal.

'Lastane™' durable and resilient anti-slip layer, which is highly resistant to scratching and stains.

A blend of reclaimed materials bonded with a hybrid polyurethane polymer and fibres for strength and durability.



10 good reasons for you to choose Millboard

- 1 Made using eco-friendly materials
- 2 Maintenance free - requires no upkeep
- 3 Highly anti-slip in the wet
- 4 Does not rot, splinter or warp
- 5 Does not host algae growth
- 6 UV weather stable
- 7 Resistant to food and drink stains
- 8 Intricate natural woodgrain detail
- 9 Invisible 'lost head' fixing
- 10 Wide choice of designs and colours

the environment

Made using a blend of recycled material that makes use of hard-to-use waste and reclaimed natural minerals. The manufacture of Millboard helps to conserve the earth's resources as well as reducing landfill, and helping conserve mature hardwood forests. Millboards environmental base material properties are excellent - Ozone depletion potential (ODP) = 0, Global warming potential (GWP) = 0. A score of 5 or below is required for a 'green' rating. Millboards do not leach out tannins so will not contaminate their surroundings.

life-cycle analysis

The most important factor in the environmental impact of any product is its true 'life-cycle' cost, or the demand on our natural resources. The FAO* report that 180 million hectares of forest were lost in the last 15 years, putting the ecological cost of wood at a premium. - not a single tree is cut down to produce Millboard products.

The polyurethane used in Millboard production offers a high durability and longevity, coupled with a low energy process in terms of manufacture. Thermoplastics typically use up to 7 times the energy to produce the same weight of boarding.

Made by ethical production processes, our manufacturing and distribution takes place within the UK, helping maintain a low carbon footprint and helping conserve our natural timber resource.

* Food and Agriculture Organisation of the United Nations

enhanced grain

weathered



Driftwood



Limed Oak

Golden Oak



Vintage



Coppered Oak

millboard enhanced grain

The enhanced grain boards create a classic decking area that will complement both traditional and contemporary settings. The wood grain finish which is individually hand-enhanced, is stylish and durable even in the most demanding of environments.

Available in four attractive colours and a choice of widths and lengths.

Sizes Available:
146 x 2400 x 32mm
196 x 2400 x 32mm
176 x 3600 x 32mm

millboard weathered

Adding character and style, these charming boards create decking areas of timeless beauty as they have been moulded from hand-picked antique oak boards of over 100 years old.

Available in two character-full colours, the boards have Lastane™ anti-slip surface making them not only look good but also safer in wet conditions.



Driftwood

Sizes Available:
200 x 3600 x 32mm

fluted



Coppered Oak



Golden Oak

Sizes Available:
146 x 2400 x 32mm

millboard fluted

Taking inspiration from the classic style of conventional decking but made from low-slip Lastane™, our fluted boards bring this design right up to date with crisp clean lines that define and enhance the beauty of the oak grain.

Available in two attractive colours, fluted is sure to create an eye-catching deck in all situations.

lasta-grip



Lasta Grip 40 - Golden



Lasta Grip 50 - Coppered

millboard lasta grip 40 & lasta grip 50

For use wherever extra slip resistance is required **Lasta Grip 40** and **50** have two integral textured strips moulded into resilient softer Lastane™ surface, covering over a third of the surface area. Excellent slip resistance is achieved without the risk of personal injury inherent in highly abrasive sharp grit strips. The non-porous Lastane™ surface repels moss and needs no maintenance other than occasional wash down.

The surface helps deaden footfall and furniture movement noise, making them the perfect choice for public places, commercial and leisure applications.



Sizes Available:
146 x 2400 x 32mm

board & end grain



Golden Oak



Coppered Oak

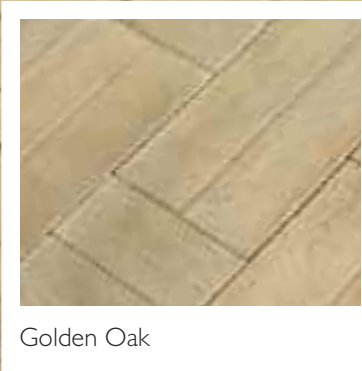
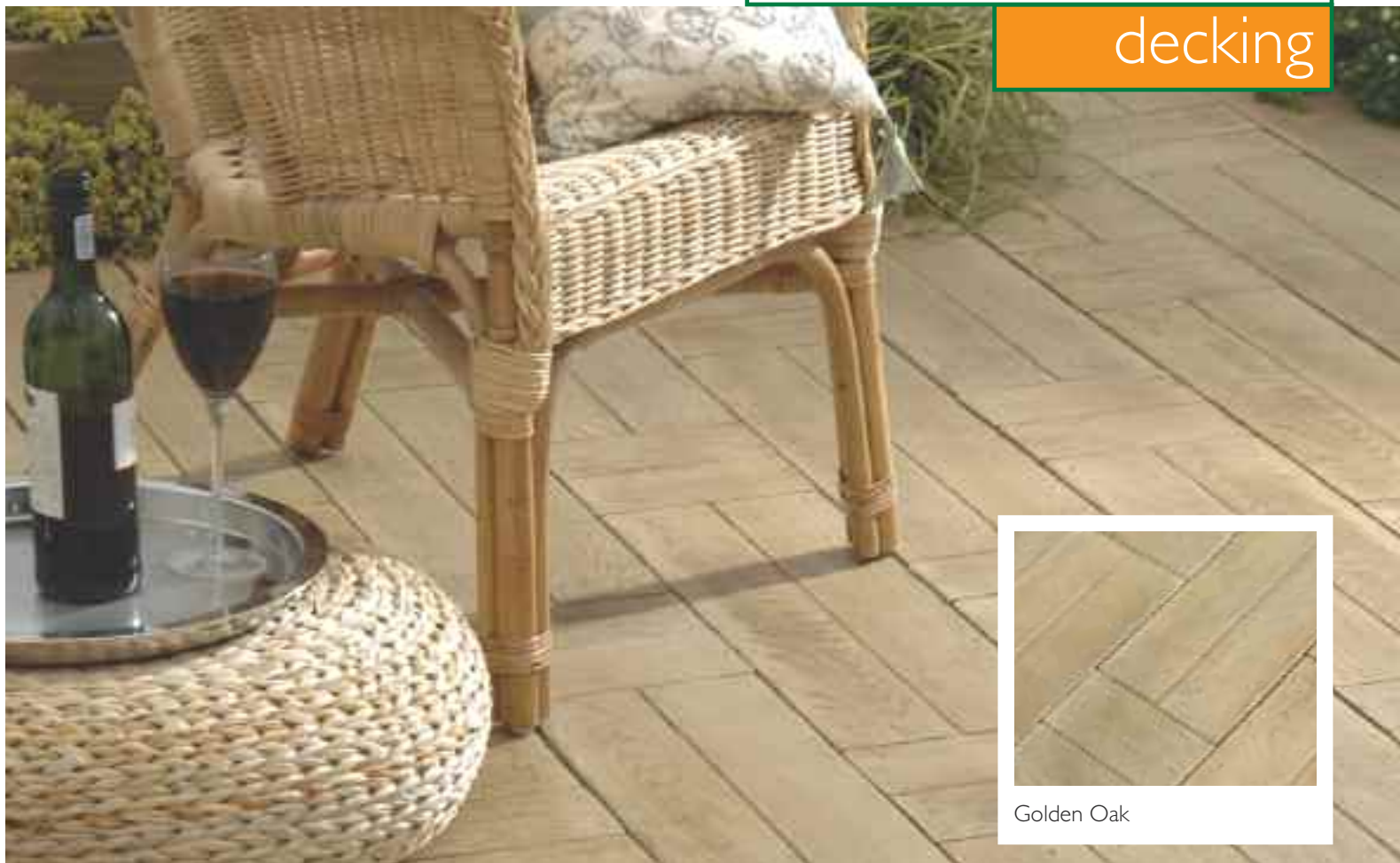
millboard board-and-end grain

The subtle design of board-and-end grain gives a distinctively different image to any decking area and is entirely unique in the marketplace.

Taken from the finest oak and timber samples, these boards portray the beauty of contrasting natural wood characteristics with the end grain, whilst retaining the stability and safety that Millboard is renowned for; with the resilient Lastane™ surface.

Sizes Available:
146 x 2400 x 32mm

half weave



Golden Oak



Coppered Oak

millboard half weave

Truly bringing interior design outside, half weave combines the appearance of decking boards with shorter cross pieces in one board that add the character of parquet flooring. Blending perfectly with most settings, this exclusive design creates a relaxing atmosphere that is perfect for any prestigious outdoor area.

Available in two attractive colours, all boards have Lastane™ resilient, anti-slip surface.

Sizes Available:
196 x 2400 x 32mm



the finishing touch - edging/fascia boards

...and tactile



flexible - bends on curves



ribbed step edge with fascia board



Bullnose step edge with fascia board



tactile with Lasta Grip 40

millboard ribbed step edge

Providing an excellent finishing touch for any area of decking, step edge is invaluable wherever there is a change of level, but can also be used to give an elegant 'framing effect' to the perimeter of your deck. The resilient **Lastane™** surface together with the grooved profile provide extra grip.
Step edge: 50 x 33 x 2400mm Fascia: 146 x 18 x 2400mm

millboard bullnose step edge

With an integral half round nosing moulded on the step edge, our bullnose step edge provides a stylish clean finish for step situations and is available in four colours.
Bullnose: 50 x 33 x 2400mm Fascia: 146 x 18 x 2400mm

millboard fascia board

Designed to add that clean finishing touch at 146mm it will cover joists up to 150mm deep.

millboard tactile

Using **Lastane™** anti-slip ridges, our tactile boards are ideally suited to alert changes of level, helping DDA requirements to be met.

The tactile range is as easy to install as a decking board and is available in all of Millboards five colours.



Sizes Available:
146 x 2400 x 32/38mm

Both the step edge boards and fascia boards are supplied rigid as standard. They can be specified in a flexible finish, where they can be used to form gentle curves to enhance the design.

specification

millboard colours



Coppered Oak

Golden Oak

Limed Oak

Vintage

Driftwood

As millboards are hand made and coloured to replicate the natural nature of wood there may be slight variance in size, thickness and colour - just like real wood. Please ask for samples.

Our technical team are happy to help on any specification or technical query. We have full specification sheets available upon request. Contact us on 02476 305502 or info@millboarddecking.com

Our technical team are happy to help on any specification or technical query. We have full specification sheets available upon request. Contact us on 02476 305502 or info@millboarddecking.com	Lastane™	Sizes available						Colour options					Fixing type		Coverage inc 4mm gap
		146 × 2400 × 32	200 × 3600 × 32	186 × 2400 × 32	196 × 2400 × 32	176 × 3600 × 32	50 × 2400 × 33	Coppered Oak	Golden Oak	Limed Oak	Vintage	Driftwood	SPD	'Durafix' <small>s/steel trimhead</small>	Boards per M ² Installed
enhanced grain 146x2400	✓	✓						✓	✓	✓		✓		✓	2.78
enhanced grain 196x2400	✓				✓			✓	✓	✓		✓		✓	2.08
enhanced grain 176x3600	✓					✓		✓	✓			✓		✓	1.54
board-and-end-grain	✓	✓						✓	✓					✓	2.78
half weave	✓				✓			✓	✓					✓	2.08
weathered	✓		✓								✓	✓		✓	1.36
fluted	✓	✓						✓	✓					✓	2.78
lasta-grip 40	✓	✓						✓	✓					✓	2.78
lasta-grip 50	✓	✓						✓	✓					✓	2.78
tactile	✓	✓						✓	✓	✓	✓	✓		✓	n/a
ribbed step edge	✓						✓	✓	✓	✓	✓	✓		✓	n/a
bullnose step edge	✓						✓	✓	✓	✓	✓	✓		✓	n/a
Fascia board - flexible 18mm	✓	✓						✓	✓	✓	✓	✓	✓	✓	n/a

Plas-Pro subframe



Plas-pro recycled plastic subframe system

- Up to 100% recycled plastic
- Reduces landfill
- Non rot, split or crack
- Ideal for Jetty's, boardwalks, fishing platforms, dipping platforms, roof terraces, leisure...
- Can be recycled at end-of-use
- Does not leach chemicals or tannins
- Range of profiles and colours

Sizes:
 120 x 40 x 2000mm
 120 x 60 x 3000mm
 100 x 100 x 3000mm
 Available in black as standard, other sizes available - please enquire

Our technical team offer free advice and specifications.



accessories



millboard joist shoe

- Ideal for flat roofs, concrete, paving or tarmac
- Does not pierce roof membrane
- Height adjusting levellers in 3mm increments
- Creates moisture barrier between joists and roof surface
- Allows air gap for joists to 'breathe'
- Acoustic benefits - reduces sound transfer
- Very quick and easy to install
- Takes joists up to 46mm wide
- Available in 38mm
- Can take up to 250kg weight loading each.

Joist shoe	centres	No./M ²
Domestic	600mm	4.25
Commercial	400mm	6.5

millboard pedestals

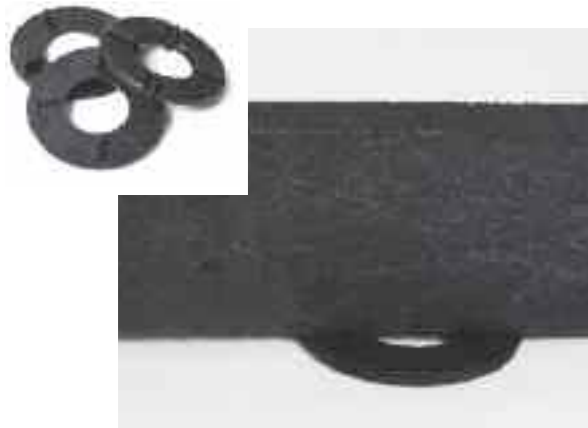
- Ideal for roof gardens or roof terraces
- Adjustable sizes 35 to 220mm
- Slope adjusters 1-3%
- Joist 'housing' lugs for ease of use
- Clip together system - no fiddly fixings
- Pipework and utilities can be laid under deck
- Multi-use for decking or paving
- Dispersion spines to prevent point loading
- Takes up to 400kg weight loading per pedestal



Pedestal	centres	No./M ²
Domestic	600mm	4.25
Commercial	400mm	6.5

millboard ring supports

- Ideal for low height areas
- Prevents rotting on joists
- Creates airflow needed for timber to 'breathe'
- Protects roof membrane
- Allows water to flow off easier -prevents pooling
- Can be used for either decking or paving

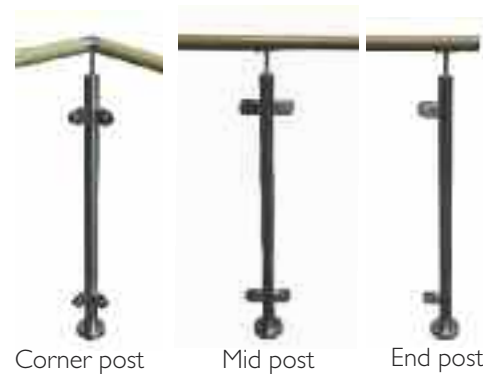


balustrading



millboard wire kits

Easy to install to either timber or steel posts, wires offer a truly clear view. Made in 316 stainless steel there is no maintenance even in coastal locations. Available in 5m and 10m lengths with end buckles (NB end fixing thread differs for timber and steel, please specify when ordering) and a self tightening 'V' clamp.



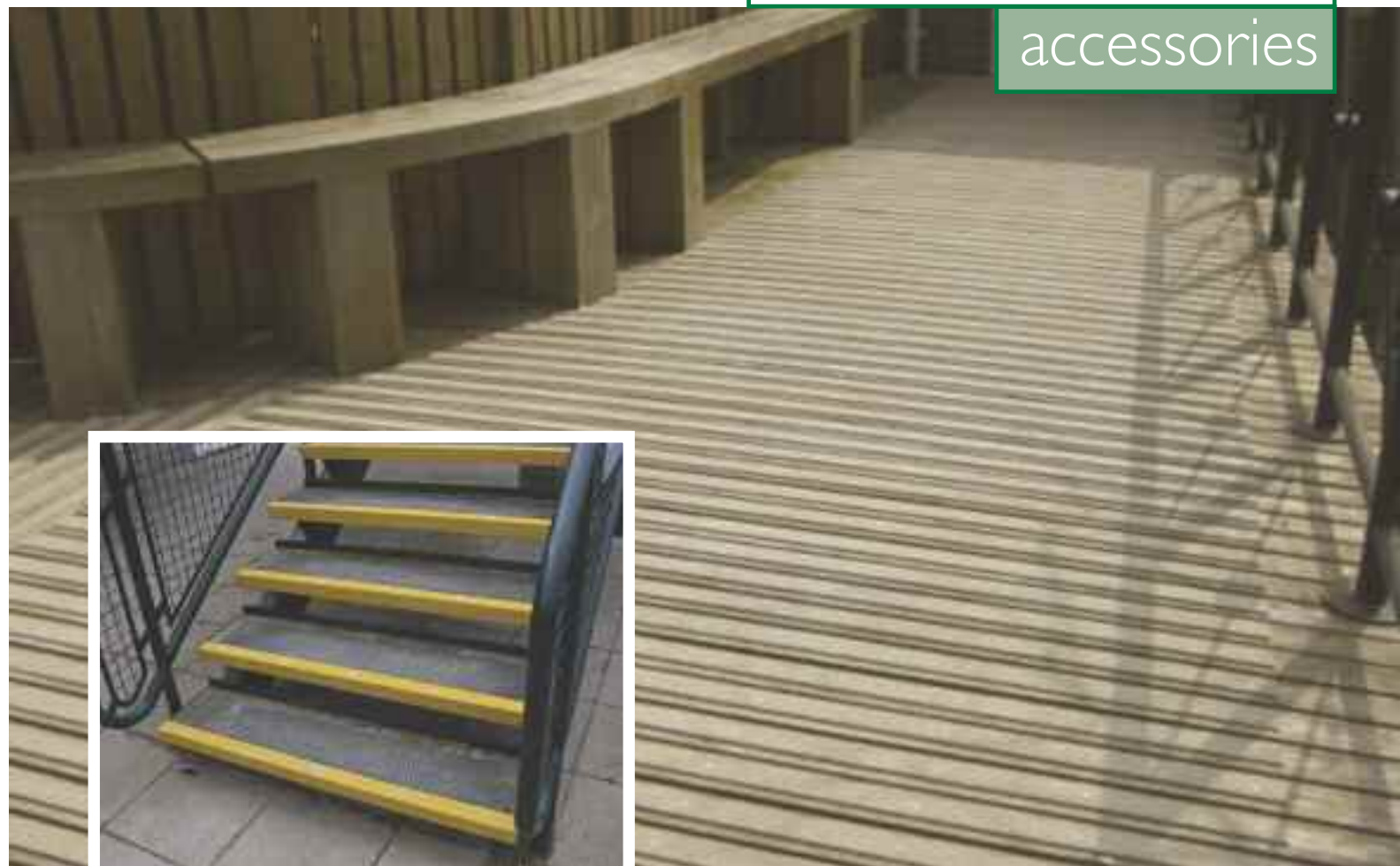
millboard stainless steel

Enhancing the project with this stainless steel balustrade range will truly give that clean contemporary feel. Made in 316 stainless steel, it is suited for even the harshest environments of coastal locations. Using the modular post kits, will make the balcony as easy to install as it is good looking. The versatile range can either take toughened glass infills or stainless wire. With the choice of rigid saddle supports for the handrail, or jointed for stair applications. Only requires the occasional wipe down with a stainless steel cleaner.

millboard post kits

- Very quick and easy install, already pre-drilled and part assembled (handrail additional)
- Choice of style for use either with toughened glass or stainless steel wire
- Cuts down on costly on-site labour, time and wastage
- Versatile - top saddle can be either fixed or jointed for stair railings

safety products



millboard step nosing

- Post-fix for existing step, gritty textured
- Highly visible colours - helps meet DDA
- Screw or glue fix
- Easy to install wet or dry
- Safer - more visible and anti-slip

Available in black or yellow, sizes:
55 x 55 x 750mm
55 x 55 x 1500mm



millboard grip strips

- Instant solution for existing slippery timber decking areas
- Easy to install in wet or dry
- Achieves a 'low' potential for slip
- Durable - more permanent solution to paint or tapes, rigid gritty texture
- Pre-drilled, easy and quick install, just screw down
- Chamfered edges for safety

Available in black or buff, sizes:
50 x 4 x 1200mm
50 x 4 x 2400mm
90 x 4 x 1200mm
90 x 4 x 2400mm

Bonding agents for grit strip/step nosing:
MS Polymer MS30 - 6/16kg
Soudal 'Aqua-fix' 390ml



Buff

technical & user guidelines

Fastening Millboard® to substructure

Warranties only apply if the recommended screws and fixing methods are used as per guidelines. Boards may have up to +/-2% dimensional variance.

Following extensive trials we recommend and supply the best self drilling screws which should be used, a minimum of 20-25mm in from the edge or end of the board. (Fig. 1). Two screws must be used where a board crosses a joist. On 196mm boards 3 fixings on the ends are recommended. Ends of boards to be supported by minimum of 18-20mm. A 4mm spacing between boards and 2mm at the ends is recommended.

Top fixing, all boards are normally screwed through the Lastane resilient surface that closes over the screw head. No pre-drilling or countersinking is required. Screws used to fix the end of Millboards to the joists should be driven at a slight angle to avoid being too near the edge. All screws should be stainless steel on any decking within 3-4 miles of the sea.

Cutting Millboards

Although Millboards are used to best visual effect when the detail of the ends are featured, should you need to cut them a sharp wood saw can be used and matching colour coating can be supplied. Always use a dust mask when sawing boards, to avoid inhaling dust and wear gloves.

As the formed end of the board is lost when cut, we recommend these are used in less visual areas against a wall or fascia. On steps and prominent edges they should be faced with a step edge that is set a little higher to take the wear at that point (see page 33).

If you need to cut the board down along the length, then reduce the joist centres accordingly. Exposed cut boards can be touched up with the coloured 'Touch-up coating', available in 500ml tins.

Factory sealed

As boards are surface sealed to ensure they arrive on-site unstained, a phenomenon occurs where rainwater clumps in globules. This is normal for a few weeks and will settle down in time as elements break down this temporary extra seal.

Joist spacing

Joist spacing of 400mm is recommended for normal residential use. On heavy commercial or bridges-balconies-moorings, and steps use 300mm spacing.

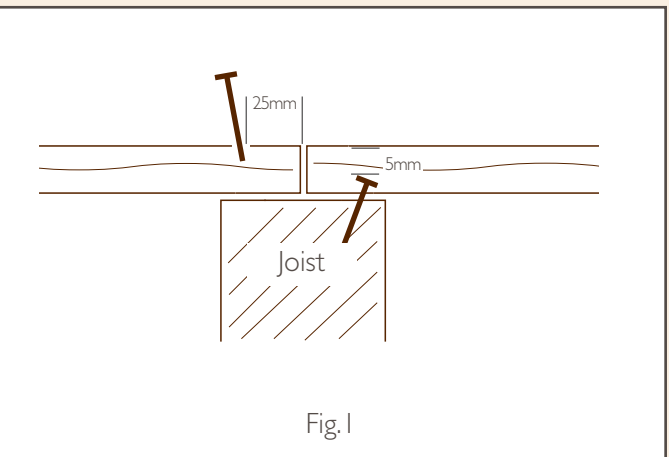
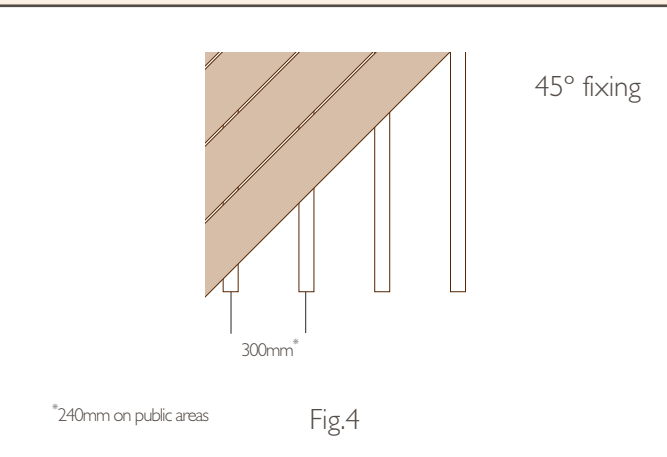
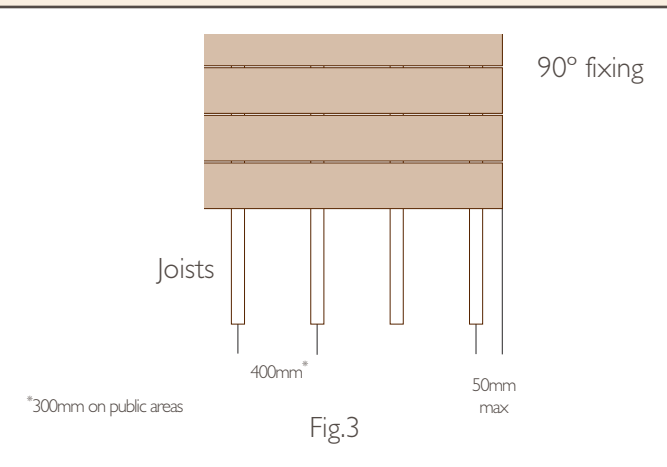
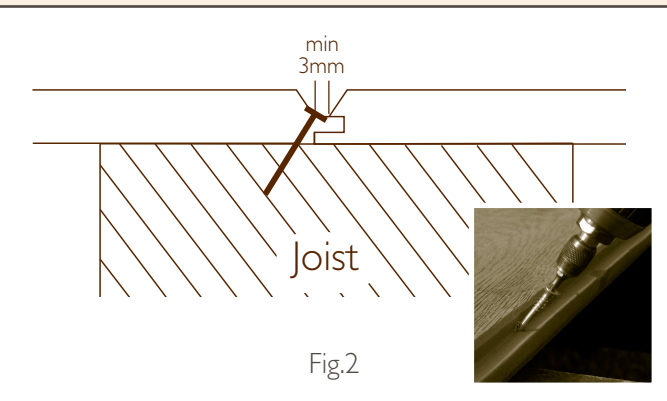
A minimum of 3 joists are required for any cut boards. All Millboards are reinforced for additional strength. For laying 45° to joist max 300mm centres, 240mm on commercial (See Fig. 3 & 4).

Half Weave and Board-and-End Grain

To continue the repeating designs, start every other new line of boards with a half board, this enables repeat to continue in correct fashion.

Tongue and Groove fixing

Millboard Tongue and Groove is fixed through the 'tongue', with the trimhead fixing at an angle into the joist as shown below, (See fig.2), leaving a 3mm gap between boards to allow for drainage run-off. We recommend to lay to a fall.



care & storage

Cleaning

Millboards are manufactured with non porous material, therefore resists both algae growth and stains. We do not recommend the use of any kind of solvent, chemicals, abrasive cleaners, wax, oil or other household cleaners on Millboards as these may harm the boards finish. There is no need to pressure wash Millboards as dirt does not become ingrained. As the surface texture is non-porous, to remove dirt and grime wash with soapy water and brush with a broom before rinsing off, like internal flooring.

Damage to Surface

The resilient surface is very durable on normal wear & tear; however, mild damage should not normally show due to the varied texture and colours in the Millboards. Sharp metal objects such as narrow metal chair legs or spiked shoes may cause damage to the surface. Use of rock salt or grit may increase surface wear on decks as it is abrasive, white salt is the best option.

Weathering

Long term ageing tests have shown that Millboards are stable and inert, no adverse reactions are expected over time under normal conditions.

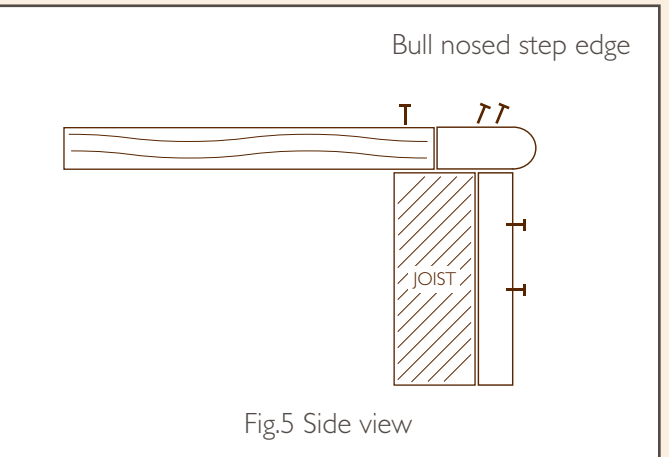
All colours have been carefully chosen and hand finished ensuring Millboard Decking will give an excellent overall natural effect throughout its life, certainly holding colour longer than wooden decking and many composites.

Choosing Colours

The darker colours of Millboard, can feel warmer than lighter colours on exposed, unshaded locations similar to decking in sunnier climates. The lighter colours should be specified in unshaded areas exposed to prolonged hot sun.

As with all flooring it is best to buy all you need at one time as batches made may vary slightly, these variations are considered acceptable, similar to natural timber.

Do not install boards if colours are unacceptable or if for any reason you believe them to be defective. Colours may tone slightly in time, this is normal for decking.



Storage and Handling

Millboards should always be stored on a flat surface or level bearers max 400mm apart.

We strongly recommend using gloves when handling or cutting boards. Care must be taken when lifting Millboards as they can be more substantial in weight due to their length and full thickness than hollow core extrusions. Protective clothing, dust mask and safety glasses should be worn when cutting Millboards. Do not burn off cuts - dispose as refuse.

Pallets of Millboards should only be moved if safely strapped to the pallet. Take care when handling pallets.

Winter Ice and Snow

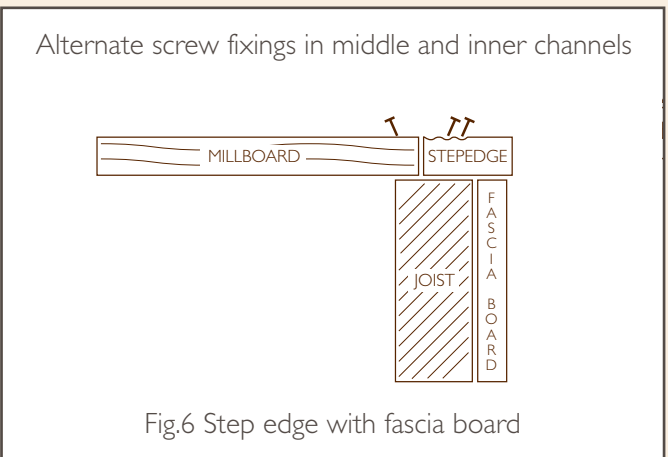
A light application of granulated table salt can be used to keep your deck ice-free, stainless steel screws are available for use where de-icing salt is used regularly. Rock salt can be very abrasive. A 'spring-clean' of soap and water with a soft broom is recommended when winter is over.

Fascia Boards & Step Edges

We recommend that the purpose made 'step edges' are fitted at steps, and bull nosed or flat fascia boards at edges of decking to protect the ends and sides of the decking from excessive wear and to enhance the finished deck area where they can act as a positive edge to changes in levels.

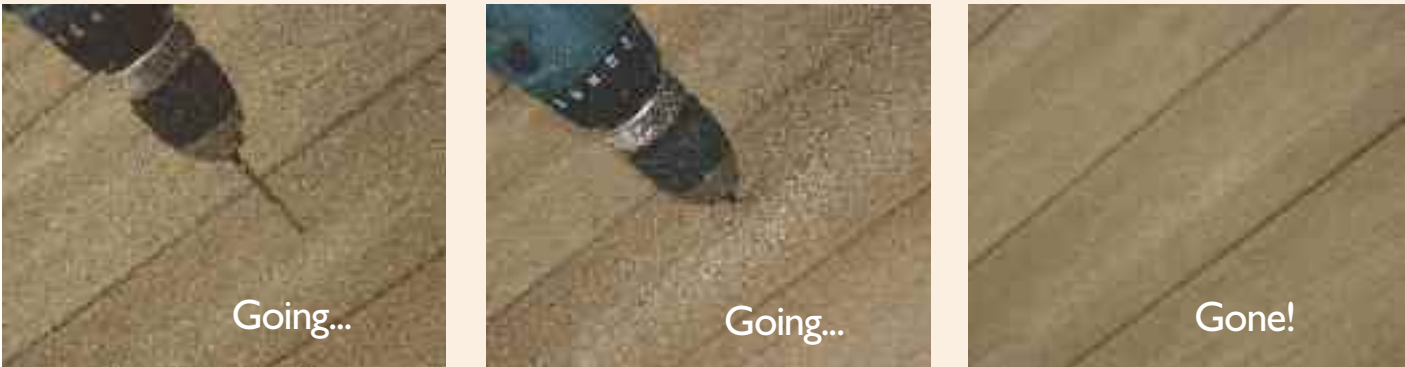
Edge boards are available as a Bullnose version (Fig. 5) or as a ribbed design (Fig. 6). Both are available as rigid and flexible. The flexible type boards can be curved to follow a maximum convex diameter of 3m. However the boards must be warmed to at least room temperature before attempting gentle bending and fixing whilst working the curve with recommended screws at approx. 300mm maximum intervals. To ensure a firm fixing, always pre drill holes.

Ensure have a minimum of 25mm supported bearing on step edge and board.



technical

Millboard Durafix ‘lost head’ top fixing - see the live install video on our website



That's how easy the 'hidden' fixing is. Just screw straight in, no pre-drilling, counter sinking or fiddly clip fixings. The unique Lastane material closes back over the Millboard Trimhead fixing, leaving a virtually indistinguishable hole or at the most a very small entrance hole.

All our recommended board fixings have self-cutting tip and a torx drive head for ease of use. Ensure the head is 5mm below the surface. We believe the most secure and best way of fixing a board is through the top. It gives better anchorage and a more rigid stable structure. We recommend 2 fixings per joist and 3 fixings on the end of 196mm or wider boards.

Below are test results achieved by an accredited testing house on Millboard Lastane decking. With a Pendulum Testing (PTV)

- 1. Slip Resistance Test: in accordance with BS79.76. Minimum of 36 required for low slip potential.
Pendulum Test on dry Weathered Oak = 81 classification: 'Excellent' anti-slip
Pendulum Test on wet Weathered Oak = 65 classification: 'Excellent' anti-slip
Pendulum Test on dry Enhanced Grain = 77 classification: 'Excellent' anti-slip
Pendulum Test on wet Enhanced Grain = 55 classification: 'Low potential' for slip
Millboard passes the slip resistant tests in all directions, as Lastane covers the full surface area.

Product	PTV Testing	Condition	Classification
Weathered	81	Dry	Excellent
	65	Wet	Excellent
Enhanced Grain	77	Dry	Excellent
	55	Wet	Low potential

Public access area's require a minimum of 45 PTV (especially when wet).

- 2. Taber Abrasion Test using type H22 wheels: in accordance with ISO 9352
The lower figure indicates lower wear (higher resistance to wear)

PRODUCTS	MG/1000 cycles
Millboard Lastane	302
Timber decking (softwood)	333
- 3. Fire Classification
Indicative tests using Underwriters UL94 test standard, samples passed V2 test criteria. All samples were self extinguishing.



Millboard...
the new generation of decking



millboard®

decking

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