Hard Metals

Stainless steel and zinc are two of the most durable of all metals in natural environments and can be used for pitched and Industrial applications.

Terned Coated Stainless Steel

Ugine

Name	Uginox	Ugitop
Description	316 AME (0.4mm Gauge) 316 AME (0.5mm Gauge)	316 "44" (0.5mm Gauge) 304 "43" (0.5mm Gauge) 316 "44" (0.4mm Gauge) 304 "43" (0.4mm Gauge)
Widths	580, 1000, 1160, Other sizes available on request	580, 1000
Weight	100kg Coils (average)	100kg Coils (average)

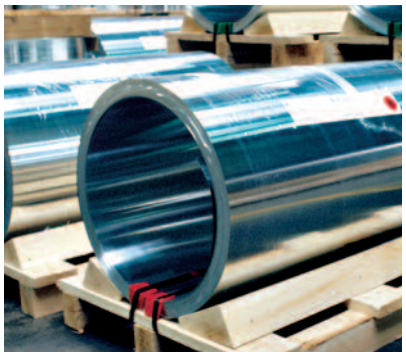
Ancillary Items:	
Product	Packing Quantities
Metmatt noise reduction felt – each coil is 50m².	3 (150m²)
Fixed Cleats	300
Sliding Cleats – 0.6mm Gauge Base, Long Slots	100
Stainless Steel Nails – Ring Shanked 3.2mm, Largehead	5kg

Zinc

VM Zinc Coils

Finish	Thickness	Width (mm)	Per Coil (kg)	Per Pallet
Natural*	0.70	500	100	10
Natural*	0.70	650	100	10
Natural*	0.70	670	100	10
Natural*	0.80	500	100	10
Natural*	0.80	650	100	10
Natural*	0.80	670	100	10
Quartz*	0.70	500	100	6
Quartz*	0.70	650	100	6
Quartz*	0.70	670	100	6
Quartz*	0.80	500	100	6
Quartz*	0.80	650	100	6
Quartz*	0.80	670	100	6
Anthra	0.70	500	100	6
Anthra	0.70	650	100	6
Anthra	0.70	670	100	6
Anthra	0.80	500	100	6
Anthra	0.80	650	100	6
Anthra	0.80	670	100	6

VM Plus Coating available to protect the material against white rust



Delta VM Zinc System

Finish	Thickness	Width (mm)	Length (mm)	Per Pallet
Delta VMZ Film	0.60	2000	20,000	1
Delta VMZ Film	0.60	2000	20,000	5

Hard Metal Accessories

Stainless Steel:	
Fixed Clip	100 per box
Sliding Clip	250 per box
Clip	100 per box

Lead

At SIG Roofing we stock quality rolled lead to BS 12588:99 supplied by Associated Lead Mills (ALM).

We are able to source lower grade cast lead if required, however, we will always recommend that you use rolled lead that conforms to British Standard regulations.

Code	Thickness (mm)	Weight (kg/m$^{2)}$	Colour Code
Code 3	1.32	14.97	Green
Code 4	1.80	20.41	Blue
Code 5	2.24	25.40	Red
Code 6	2.65	30.05	Black
Code 7	3.15	35.72	White
Code 8	3.55	40.26	Orange

ALM a positive partnership

Sizing Guidelines for Good Practice

Recommended Approximate Maximum sizes of individual pieces of lead sheet			Application					
Code	Length (mm)	Width (mm)	Soakers	Flashings	Pitched Gutters	Cladding	Weatherings	Dormers & Canopies
3	1000	-	✓					
4	1500	500	✓	✓	✓	✓	✓	
5	1500	600		✓	✓	✓	✓	✓
6	2250	675					✓	✓
7	2500	675			✓			✓
8	3000	700			✓			✓

Guide to Lead Flashing Weights

		Code 3		Code 4		Code 5	
Weight per m^2 (kg)		15.0		20.41		25.40	
Nominal Thickness (mm)		1.32		1.80		2.24	
Width (mm)	Nearest Imperial	3m/kg	6m/kg	3m/kg	6m/kg	3m/kg	6m/kg
150	6″	7.0	13.0	9.0	18.0	11.0	23.0
180	7″	8.0	16.0	11.0	22.0	14.0	27.0
210	8″	9.0	19.0	13.0	26.0	16.0	32.0
240	9″	11.0	22.0	15.0	29.0	18.0	37.0
300	12″	13.0	27.0	18.0	37.0	23.0	46.0
360	14″	16.0	32.0	22.0	44.0	27.0	55.0
390	15″	18.0	35.0	24.0	48.0	30.0	59.0
420	16″	19.0	38.0	26.0	51.0	32.0	64.0
450	18″	20.0	40.0	28.0	55.0	34.0	69.0
510	20″	23.0	46.0	31.0	62.0	39.0	78.0
600	24″	27.0	54.0	37.0	73.0	46.0	91.0
760	2'6″	34.0	68.0	47.0	93.0	58.0	116.0
800	-	36.0	72.0	49.0	98.0	61.0	122.0
900	3'0″	40.0	81.0	55.0	110.0	69.0	137.0
1000	-	45.0	90.0	61.0	122.0	76.0	152.0
1220	4'0″	55.0	110.0	75.0	149.0	93.0	186.0
1500	5'0″	67.0	135.0	92.0	184.0	114.0	229.0
2440	8'0″	-	-	149.0	299.0	186.0	372.0

Accessories

- Prefabricated lead slates suitable for almost every type of roof application are available (lead Flexislates incorporating a vulcanised rubber seal are also available).
- Lead sealant for pointing between brickwork and masonry.
- Patination Oil - provides a better finish and minimises white staining on materials fixed below the lead (patination oil should be applied as soon as the lead work is completed).
- Expansion Joints.
- Underlays (Geotec/Building Paper/Trevira).
- Specialist fixings (Copper Ring Shank/fixing clips, brass screws and lead domes).
- Wood cored roll (50mm and 75mm King roll).
- Metwash metal handler's soap.

Tips on good leadwork

- Always refer to The Lead Sheet Association (LSA) guidelines.
- Fixings should hold the lead securely in position without restricting thermal movement. With flashings, regular expansion joints (laps) will overcome the restriction caused by lead wedging along one side.
- Nails and screws should have a similar life expectancy to that of the lead – therefore only use copper, brass or stainless steel and never galvanised or aluminium.
- Ask your local branch for a lead 'Craftsman Guide'.

Leadwork should comply with the recommendations of the Lead Sheet Association and BS EN 6915 (Specification for design and construction of fully supported lead sheet roof and wall coverings).

Battens

Batten Checklist

Are your Battens the correct size?
Follow the recommended table of sizes in BS5534: 2003, reproduced below, to ensure the correct size is used for the specific rafter centres and the slate or tile types being used.

How is the batten graded?
The batten is graded in all respects to wane, fissures, splits, rate of decay, insect attack, resin pocket and an initial grade for knots. It is recommended that final grading for defects (especially knots) take place on site.

Is the batten fully marked, and the species identified?
Yes, the batten is individually marked providing name of manufacturer, size, grade, treatment and timber species.

Are the battens full to size?
Yes, they are full to size with the size (only sizes within BS5534: 2003) marked on every batten.

Are the battens made from imported timber?
BS5534: 2003, unlike its predecessor does not make a distinction between imported (formerly referred to as "Type A") and home-grown (formerly "Type B") timber. We stock batten from SR Timber and Nordic Forest that are made exclusively from imported timber, which has been proven to be 17% stronger in bending and stiffness than home UK timber. The imported species are now referred to as European Redwood (PNSY) and European Whitewood (WPCA).

What guarantees do you get?
- Guaranteed to be marked in accordance with the new requirements of BS5534: Part 1: 2003.
- Guaranteed to be manufactured using timber from sustainable forests.
- Guaranteed to be manufactured from selected superior imported timber.
- Guaranteed to be manufactured full to size.
- Guaranteed to be correctly treated.
- SR Timber offer a 60 year guarantee on roof battens when installed correctly.

Minimum Timber Batten Sizes (Roofing and Vertical Work)

Application	Basic Minimum Size Of Batten (*, **, ***)			
	Up to 450mm Span****		Up to 600mm Span****	
	Width (mm)	Depth (mm)	Width (mm)	Depth (mm)
Slates (double-lap):				
- Natural: sized or random	50	25	50	25
- Fibre cement or concrete	38	25	50	25
Clay and concrete tiles:				
- Double-lap	38	25	38	25
- Single-lap	38	25	50	25

* Tolerances on the basic sizes of timber batten should be: width +– 3mm, depth –0 +3mm, based on measurement at a reference moisture content of 20% (see ***).
** These minimum sizes do not apply to battens used to support ridges, hips and valleys.
*** Batten sizes for other slates, tiles and shingles such as timber shingles and shakes and metal tiles, or other proprietary roofing products, should be in accordance with the manufacturer's recommendations.
**** Span is defined as the distance between centres of supports, or the clear distance between the face of supports plus half the bearing length at each end support, whichever is the lesser. The end bearing length should not be less than 17.5mm.

S R TIMBER
ROOFING BATTEN SPECIALIST

Shingles and Shakes

Shingles and shakes are a wooden roofing and external cladding material – a form of tile that is attractive, durable, environmentally friendly and versatile. Shingles and shakes perform the same functions but are manufactured using different processes. They are typically manufactured from Western Red Cedar but are also available in Chestnut and Oak.

Approximate Coverage per Bundle			
	Exposure / Gauge		
	95mm	125mm	190mm
Coverage in m^2 "xxxxx" shingles	1.73m^{2}*	2.28m^{2}**	3.47m^{2}***
Coverage in linear metres of ridge units	4.5 lin.m	3.4 lin.m	

* Maximum recommended exposure for roofs between 14° and 21°
** Maximum recommended exposure for roofs of 22° and above
*** Maximum recommended exposure for cladding

Double starter course: Allow 1 bundle for every 18 linear metres.

Valleys: Allow 1 bundle for every 7.5 linear metres.

Wastage: Allow about 5% of wastage depending upon the size of the project. This can vary, depending upon the amount of cutting required.

Nails: For maximum life, fixings should be made with two 31mm x 1.8mm silicon bronze or stainless steel annular ring nails per shingle. 0.9kg of nails are required to fix four bundles of shingles.

- 40 year guarantee.
- Exceptional strength to weight ratio (one tenth the weight of traditional roof coverings).
- High thermal insulation.
- Low expansion and contraction ratio.
- High impermeability to rainwater.
- Minimum maintenance required.

Shingles

Name	**XXXXX (or 5X), Cedar Shingles**
Size (mm)	Random widths (min 75) x 350
Coverage (Tiles/m^2)	1 bundle = 2.28 (22° & over), 1.73 (14 - 22°)
Max Lap (mm)	125 gauge (22° & over), 95 gauge (14 - 22°)
Min Pitch Smooth	14°
Battens 450 / 600*	25 x 38
Description	Sawn Cedar Shingle, weathers to an attractive silver grey. Light weight and Robust. Use only No 1 grade blue label

Name	**600mm Hand Split & Re-Sawn Cedar Shakes**
Size (mm)	Random Widths (min 75 - 135) x 600
Coverage (Tiles/m^2)	1 bundle = 1.83 (22° & over, 2 ply construction) refer guide.
Max Lap (mm)	250mm gauge
Min Pitch Granuled	22°, Textured finish
Battens 450 / 600*	25 x 50
Description	Split Cedar Shake, weathers to an attractive silver grey. Light weight and Robust. Use only No 1 grade blue label

Name	**Oak Shakes**
Size (mm)	Random widths (min 75-170) x 450
Coverage (Tiles/m^2)	1 bundle = 1 (22° & over)
Max Lap (mm)	125 gauge (22° & over)
Min Pitch Granuled	22°
Battens 450 / 600*	25 x 38
Description	Split Oak Shake, weathers to an attractive silver grey. Light weight and Robust.

Name	**Chestnut Shingles/Shakes**
Size (mm)	Random widths (min 75) X 325
Coverage (Tiles/m^2)	1 bundle = 0.25 (22° & over)
Max Lap (mm)	100 gauge (22° & over)
Min Pitch Granuled	22°
Battens 450 / 600*	25 x 38
Description	Sawn Chestnut Shake, weathers to an attractive silver grey. Light weight and Robust.

Name	**Sculptured Shingles**
Size (mm)	125 x 450
Coverage (Tiles/m^2)	1 carton = 1.5
Min Lap (mm)	125 gauge
Min Pitch Smooth	22°
Battens 450 / 600*	25 x 38
Description	Decorative product, can be used as vertical tile hanging

Name	**Timber Cladding (Cedar, Thermowood, Siberian Larch)**
Size (mm)	Random Lengths x 125 & 150 nominal widths 125 widths up to 7.7m per m^2
Coverage (Tiles/m^2)	150 9.3m per m^2
Max Lap (mm)	n/a
Min Pitch Smooth	Vertical Cladding, 90°
Battens 450 / 600*	38 x 50
Description	Vertical timber cladding, wide range of profiles.

Shingles and Shakes: Fittings & Accessories

For details on Cedar Shakes, profiled (fancy butt) shingles, Chestnut and Oak Shakes please consult with your SIG depot.

Fittings & Accessories	5X	600mm shake	Oak Shakes	Chestnut Shakes
Eaves Tile				
Bedded Verge				
Cloaked Verge				
Side / Top Abutments				
Bedded Ridge				
Bedded Hip				
Mitred Hip				
Valley Tiles				
Ventilation Terminals				
Dry Verge			✓	✓
Dry Ridge	✓	✓	✓	✓
Dry Hip		✓	✓	✓
Dry Valley				
Silicon Bronze Nails	✓	✓	✓	✓
Stainless Steel Nails	✓	✓	✓	✓
Concealed Ventilators				
Eaves Ventilators	✓			
Abutment Ventilators				
Ridge Ventilators	✓	✓		
Gas Vent Ridge Terminals				
Own Range of Breather Membranes?				
Batten: 450mm	25 x 38	25 x 50	25 x 38	25 x 38
600mm	25 x 38	25 x 50	25 x 38	25 x 38

Roofboards

Plywood and SmartPly roofboards are available for pitched roofing applications. You must always ensure your roofboards comply with BS5268 part 2.

Why Use Certified Materials?

If you're using a wood-based panel product structurally, you need to be sure it complies with the relevant Design Standard - BS5268 Part 2. If it doesn't, you may risk liability should any subsequent failure occur.

What is BS5268-2?

BS5268-2 (Structural Use of Timber) is a design standard that details which sheet materials are suitable for use in structural applications. Simply, any panel product being used in a structural application that is not listed in the standard will fail to meet building regulations.

What conforms to BS2568-2?

Yes – SmartPly 3 products are listed as suitable for structural use in BS5268 Part 2 (Section 5) and are individually stamped with the appropriate structural grade mark (OSB3). Not only that, SmartPly 3 products have BBA approval, ensuring the product complies fully with the Construction Products Directive (CPD) legislation and are CE marked.

CE Marking – Your Questions answered

What is the new legislation that's come into force?

The Construction Products Directive (CPD) became law across the whole of the EU from the 1st of April 2004. It seeks to ensure that all wood based panels used in construction, where the product is for permanent use in regulated building work, are fit for purpose intended. The CPD covers both structural and not structural panel products. Once a manufacturer has proved by test that his product meets the minimum requirements for a particular end use, he is entitled to place a CE mark on the product or the packaging to show that it does. However, consumers should be cautious on two points:

1) Because the CPD covers both structural and non-structural panels, the presence of a CE mark on the product does not necessarily show that the panel is suitable for structural use. Consumers should seek the performance information behind the mark to establish whether a panel is suitable for their particular end use. Performance testing under the CPD for structural use requires a level of attestation at 2+ (as defined in BS EN 13986). This means the structural testing is carried out by an official testing authority, approved by the European Commission. Any strength data not backed up by a Notified Body is invalid and the product cannot be used legally for structural use.
2) Actually applying the CE mark to the product or the package is not mandatory in the UK although it is in most other European Member States. However, product compliance with the CPD is mandatory in All Member States. Some products might be CPD compliant yet carry no mark.

How will it effect me?

If challenged, by either local authority Building Control or Trading Standards, you will have to prove that the product you have used is fit for the job you are using it on. If you are found to have used non-compliant boards, you may be required to remove them from site, or prove that they will do the job in accordance with the Building Regulations or, in extreme cases, dismantle part of the structure where the non-compliant boards have been installed. Either way your work may be severely disrupted and may put you in conflict with your client. If you refuse to cooperate with regulatory officials or seek to obstruct them in their duties, you may face criminal charges and the court may consider a heavy fine or a custodial sentence.

So what should I do about it?

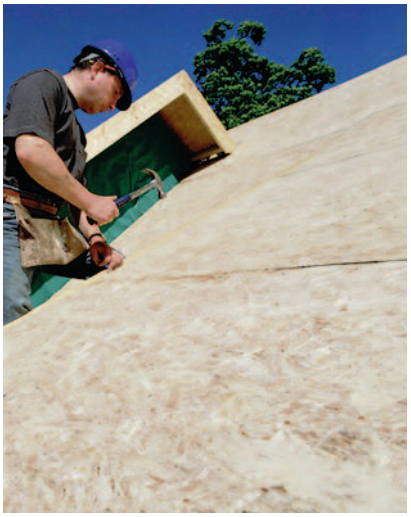
From now on ALL panel products used for permanent incorporation into regulated building work must meet the minimum requirements of the CPD and preferably carry a CE mark to show that they do. Additionally, to comply with the Building Regulations, those panels also required to perform a structural function must either conform to BS5268 Part 2 or be tested under BS EN 13986 for structural use to attestation level 2+. You should seek to find products carrying the correct identification; CE mark with 2+ Structural or BBA. For example, see bottom of page:-

CE 050-CPD-015 Smartply 04 EN13986 OSB/3 E1 Class 1 EN300 2+ structural 18mm BS5268-2: 2002 ➔➔
FSC TT-COC-1572 90% KOMO 32685/02 NBI NR 2148 IAB 02-0093 BBA98/3488/C Shift A 02.03.04 ➔➔

Roofboards

SmartPly 3 OSB

SmartPly OSB3 (Oriented Strand Board) is the ideal solution for pitched roof sarking applications. Manufactured with oriented wood strands coated with high performance resins and compressed under high temperature, the result is a load-bearing panel that achieves a reliable distribution of strength, stiffness and spanning capacity along and across the board.



Dimensions and Thickness

Thickness	Length (mm)	Width (mm)	Type	Boards/pack
9mm	2397, 2440	1197	Square Edge	100
11mm	2440, 2440	1220, 1200	Square Edge	82
15mm	2440, 2440	1220, 1200	Square Edge	60
18mm	2440, 2440	1220, 1200	Square Edge	50
18mm	2440	600	Tongue & Groove	100
18mm	2397	1220	Tongue & Groove	50

Specification for pitched roof construction

	Board Thickness (mm)			
	9*	11	15	18
Maximum Span (mm) (joist rafter centres)	610	450	610	610
Nail Centres (edges) (mm)		150		
Nail Centres (intermediate) (mm)		300		
Minimum nail edge distance (mm)		10		
Max bearing support (mm)		18		

* Suitable only where roof coverings are independently supported on battens and secured to counter battens. In all other pitched roof cases, roof coverings may be attached to the board. Use 18mm under slates.

Structurally Rated Plywood

A lightweight and economical plywood approved for structural use on roofs.

Dimensions and Thickness

Thickness	Length (mm)	Width (mm)	Type	Boards/pack
9mm	2440 or 2500	1200 or 1250	Square Edge	80
12mm	2440 or 2500	1200 or 1250	Square Edge	60
15mm	2440 or 2500	1200 or 1250	Square Edge	50
18mm	2440 or 2500	1200 or 1250	Square Edge	40
21mm	2440 or 2500	1200 or 1250	Square Edge	35
24mm	2440 or 2500	1200 or 1250	Square Edge	30

Tongue and groove available on request.

Size tolerances:
< 1000mm ± 1mm
1000-2000 mm ± 2mm
> 2000mm ± 3mm

Squareness tolerance:
± 1mm / 1000mm

Other information
The panel can have dimensional changes due to changes in the air humidity.
Please leave gaps between panels in the installation.
The boards can be worked with ordinary hand tools.