premier
slate

THE FINEST SLATE FROM AROUND THE WORLD

CONTENTS

The lifetime of a building begins with the choice of materials. For hundreds of years architects and designers have been inspired by the natural beauty of slate. Through its aesthetic potential and practical qualities, this material's unique character enhances the architectural vision.

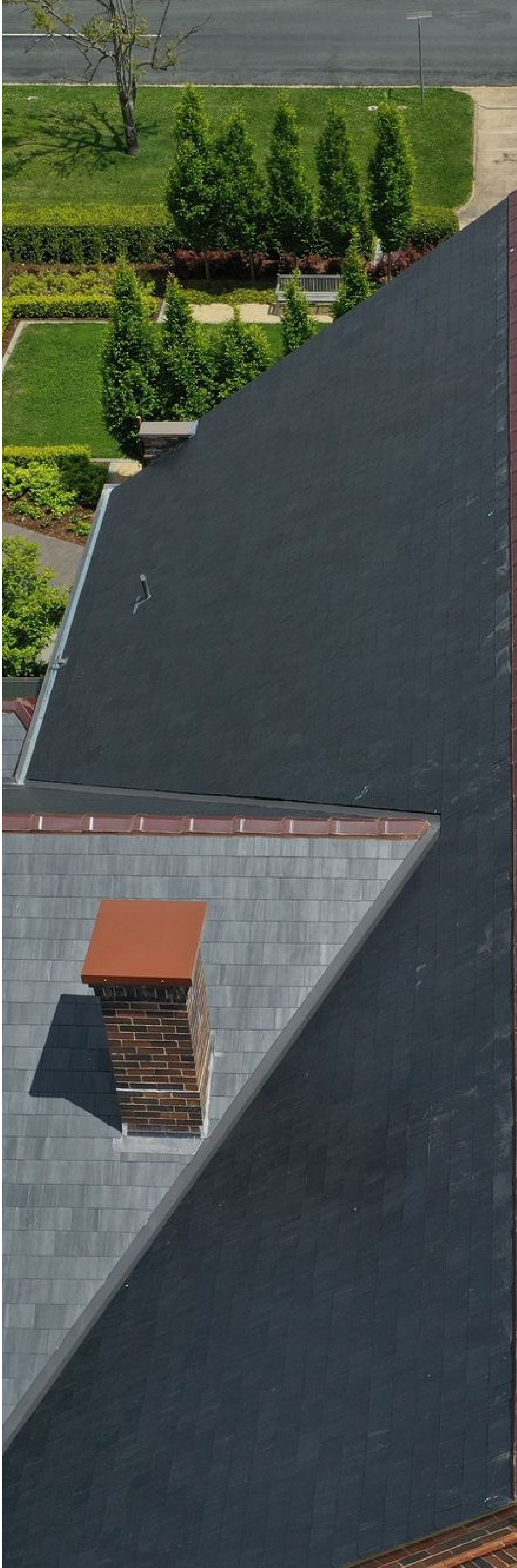
WHO IS PREMIER SLATE ?

At Premier Slate Products we are committed to improving the supply and competitiveness of high quality roofing slate to the Australian construction industry.

We procure only the finest roofing slate from around the world to provide our clients with a range of options to suit all budgets and aesthetic tastes.

We look forward to assisting you with your project requirements and advising you on how this exceptional material can enable you to achieve your architectural vision.

For licensed slate roof installers contact
Premier Slate
E: info@premierslate.com.au



NATURAL SLATE

Natural slate is internationally recognised as one of the finest building materials available, displaying a unique fingerprint that reflects the power and presence of the landscape from which it was hewn. In recent decades new sources of roofing slate have come into production from all over the world.

Roofing slate has a reputation for aesthetic beauty and technical performance which is second to none. Over 500 million years in the making and formed by the natural processes of mother earth, this roofing material is reserved for the most noble and prestigious buildings. Natural slate is considered to be eco-friendly.

The importance of high quality natural slate

At Premier Slate, we only supply high quality natural slate suitable for the unique Australian environment. When installed in accordance with Australian Standards, we guarantee that our natural slate will not;

- Oxidise or discolour, resulting in staining on the roof
- Erode and develop holes
- Fade in colour
- Delaminate
- Encourage moss (bryophyte) growth, thus restricting rainwater run-off
- Be damaged by strong winds

WELSH SLATE: PENRHYN

The Penrhyn Heather Blue slate, also known as Bangor Blue, is perhaps the best known Welsh slate colour. Welsh Slate Limited is the worlds leading manufacturer of high quality roofing slate and have an unparalleled reputation for durability and quality.

The Penrhyn Quarry has been producing roofing slate since the 13th century. Buildings roofed with Welsh slate supplied over two hundred years ago are common place.

Quarry of origin

Penrhyn, Bethesda

Place of origin

Wales, U.K

Produced by

Welsh Slate Limited

Colour / Appearance

Natural Heather Blue tonal variations and may include natural green marking

Durability

100 Years or more

Compliance

United Kingdom, BS

WELSH SLATE: CWT Y BUGAIL

These Welsh slates are a beautiful dark blue-grey colour with an attractive slightly textured surface. Cwt-y-Bugail have invested time and money into making sure the complete production process from extraction to delivery is rigorously maintained.

This precise production results in a slate that is recognized for its aesthetic qualities, low maintenance and durability.

Premier Slate offers a 100 year quarry warranty on Welsh slates, when bought from Premier Slate and fixed to Australian standards.

Quarry of origin

Cwt y Bugail quarry, Blaenau Ffestiniog

Place of origin

Wales, U.K

Produced by

Welsh Slate Limited

Colour / Appearance

Natural Blue Grey banding

Durability

100 Years or more

Compliance

United Kingdom, BS

WELSH SLATE
Part of the Breedon Group

SPANISH SLATE: DEL CARMEN

Spain is the largest producer of natural roof slate in the world, producing between 80-90% of the worlds roofing slate.

An exclusive slate from the Del Carmen quarry in the Cabrera Mountains of North-West Spain, an area that contains uninterrupted seams of high-quality slate. Del Carmen slate is consistently handpicked by architects around the world for its unrivalled beauty and exceptional high quality. The unique colour is totally natural and will not fade, even in the strongest sunlight

Quarry of origin

Cabrera Mountains of North-West Spain

Place of origin

Spain

Colour / Appearance

Unique Grey

Compliance

EN 12326-1 grade T1 and A1, Norm Francais (NF 228), ASTM C406

Warranty

100 Years

DEL CARMEN®

VERMONT SLATE

Vermont slate is found in the 'Green mountains' of Vermont, United States of America. A highly regarded slate, as its durability to extreme weather conditions and 100% water resistant, makes the slate unique. Producing stunning, low maintenance and long lasting slate.

Quarry of origin

Green Mountains , Vermont

Place of origin

USA

Colour / Appearance

Unfading green

Semi weathering green/grey

Durability

Low maintenance and extremely long lasting

Compliance

ASTM Rating S1

CANADIAN SLATE: GLENDYNE

Glendyne slate is produced in the town of Saint Marc du Lac Long, Quebec, Canada.

Produced from deposits laid down 500 million years ago, these top quality slates are dark charcoal grey in colour with tones of blue. They have a fine textured surface with a smooth finish so they are known for lying beautifully flat on a roof.

Like our other slates they contain no pyrites or metallic intrusions. A very reliable premium roofing slate.

Quarry of origin

Saint Marc du Lac Long, Quebec

Place of origin

Canada

Produced by

Deposits laid down 500 million years ago in Saint Marc du Lac Long

Colour / Appearance

Dark Charcoal grey with tones of blue

Durability

Withstand the most severe weather.

Compliance

France NF228, Belgium STS 43.03.6, North America ATSM C406-00 and United Kingdom ES 12326-2

GLENDYNE

RECYCLED STOCK

Premier Slate stocks a wide range of reclaimed roofing slates, ridge caps, chimney pots, finials, saddles etc. Please email or call to discuss your requirements.

At Premier Slate we are dedicated to recycling wherever possible and reducing waste sent to landfill. With Welsh slate often being taken off roofs and put back on again or for repairs we therefore have a range of second hand Welsh slates available in different sizes.

FIBRE CEMENT SLATE - MONTANA

The Montana fibre cement slate is a man made alternative to natural slate, which is fixed in the traditional method to give a similar appearance at a lower cost. The slates are manufactured from compressed fibre cement with a textured surface and natural looking dressed edges to give the appearance of natural slate.

Because of the precision manufacturing process, no preliminary grading according to thickness is required and a double layer of acrylic based coating on the slate's surface ensures that it is highly resistant to moss growth.

Place of origin

Belgium

Produced by

SVK

Colour / Appearance

Available in either Blue-Black or Welsh Blue

Durability

30 year structural manufacturer guarantee
10 year colour manufacture guarantee

Compliance

European Standard EN 492

SVK Experts in fibre cement

FIBRE CEMENT SLATE - ARDONIT

Like the Montana, the Ardonit Diamond slates are manufactured from compressed fibre cement. Diamond slates are square slates measuring 40 x 40 cm with two opposite corners cut parallel to each other, so they can create a striking diamond pattern when fixed to a roof.

Ardonit Diamond slates are extremely light yet exceptionally strong, making them easy to work with. The coated Ardonit slate has a double coloured and environmentally friendly acrylic coating, making it highly resistant to moss growth.

Place of origin

Belgium

Produced by

SVK

Colour / Appearance

Available in either Blue-Black or Welsh Blue

Durability

30 year structural manufacturer guarantee
10 year colour manufacture guarantee

Compliance

European Standard EN 492

SVK Experts in fibre cement

IMAGE CREDIT: HERITAGE SLATE ROOFING

KORAMIC PLAIN TILES/ HERITAGE TERRACOTTA SHINGLES

Koramic is the largest producer of clay roof tiles in Europe.

Advanced manufacturing techniques ensure that all Koramic clay roof tiles offer maximum durability and optimum colour consistency. These clay tiles have received a lowest environmental impact rating in the UK and comply with the BS EN 1304 requirement and BS 5534.

They have distinctive clean, crisp, contemporary look whilst retaining the warmth and character of clay. The result: a desirable finish for both heritage buildings or the modern home that wishes to look a little different from the rest.

Size of Tile	255mm x 165mm/ 270mm x 170mm
Minimum Pitch	35 degrees
Maximum Pitch	90 degrees
Minimum Headlap	65mm (roof)
Maximum Guage	100mm (roof)
Cover Width	165mm - 170mm (nominal)
Coverage Capacity (net)	60 tiles / m2 at 100mm gauge (roof) 53 tiles / m2 at 115mm gauge (verticle)
Weight of Tiling (approx)	64kg / m2 (0.63kN/m2) at 100mm gauge (roof) 56kg / m2 (0.55 kN/m2) at 115mm gauge (verticle)
Batten Required	10.0 lin.m/m2 at 100mm gauge (roof) 8.7 lin.m/m2 at 115mm gauge (vertcile)
Batten size recommended (fixed to BS 5534)	30 x 25mm for rafters / supports not exceeding 600mm centres
Tile Nails	38 mm x 2.65 mm

Koramic

CEDAR SHINGLES

Premier Slate imports and supplies only the finest Western Red Cedar Shingles from Canada.

Renowned for being low maintenance, extremely durable and with exceptional insulation qualities, Western Red Cedar Shingles also provide a natural rustic charm to a roof.

They are particularly popular for outdoor Gazebos and structures, though they are also well suited to roofing and cladding on homes.

Cedar is one of the hardest and toughest woods on the planet and will age very well. The natural earthy shades will go from a rich golden brown to a silvery grey colour over time. Cedar is a natural insulator, making Cedar Shingles an energy efficient roofing option.

Cedar shingles are naturally resistant to UV exposure, moisture, insect damage and moss growth.

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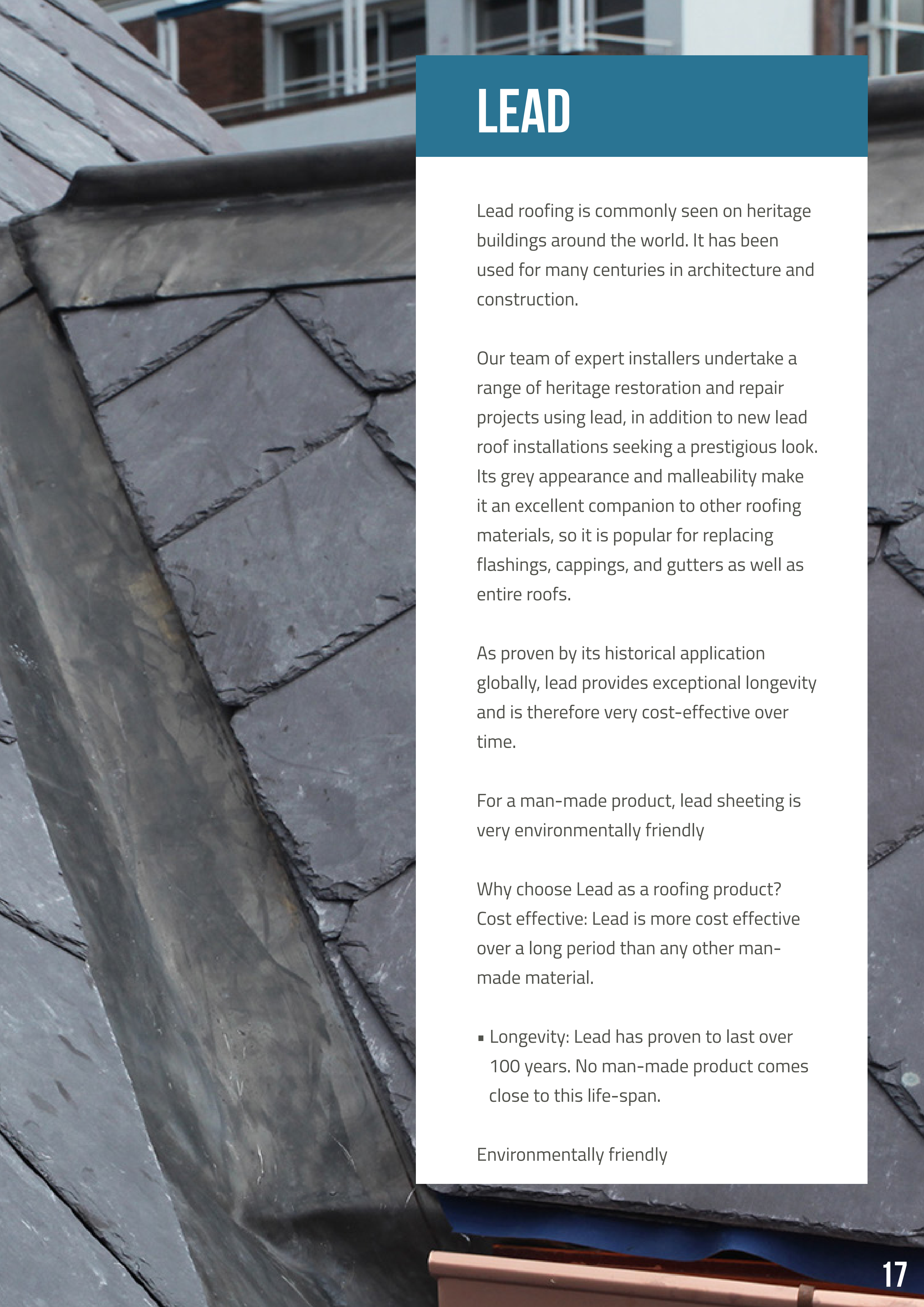


LEAD

Lead roofing is commonly seen on heritage buildings around the world. It has been used for many centuries in architecture and construction.

Our team of expert installers undertake a range of heritage restoration and repair projects using lead, in addition to new lead roof installations seeking a prestigious look. Its grey appearance and malleability make it an excellent companion to other roofing materials, so it is popular for replacing flashings, cappings, and gutters as well as entire roofs.

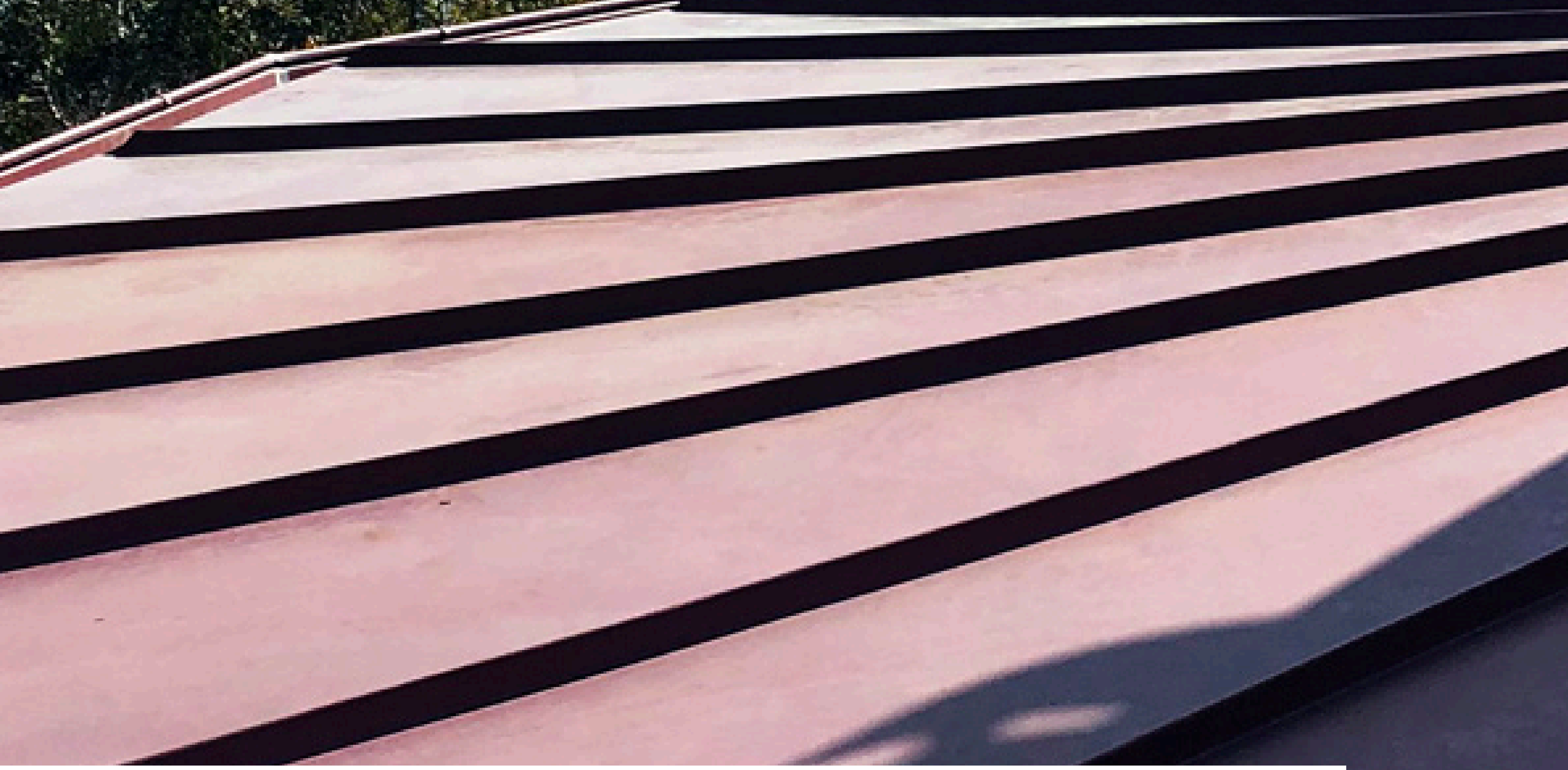
As proven by its historical application globally, lead provides exceptional longevity and is therefore very cost-effective over time.

For a man-made product, lead sheeting is very environmentally friendly

Why choose Lead as a roofing product?
Cost effective: Lead is more cost effective over a long period than any other man-made material.

- Longevity: Lead has proven to last over 100 years. No man-made product comes close to this life-span.

Environmentally friendly



COPPER

In terms of style, copper possesses an unmatched warmth and elegance. It's appearance matures over time like a fine wine: from an initial natural brightness, to a deep bronze and then its characteristic green tinge. This is due to the patina - a thin protective coating - that forms on the surface naturally with age and exposure.
This patina aids the material's durability and low-maintenance properties, providing an effective life span in excess of 100 years.

Copper's malleability makes it suitable for the most intricate of jobs. From large scale commercial roofs to small pergolas and structures, it can be formed and contoured to almost any design.

Copper is an environmentally friendly choice of roofing material. A natural product, it is non-toxic to humans and animals, energy efficient and can be 100% recyclable.
Copper is commonly used in standing seam systems, adding to its durability thanks to the watertight properties of standing seam roofs.

Copper is compatible with other roofing materials such as slate roof tiles, cedar shingles, lead and stainless steel. It is therefore often used in conjunction with slate roofing projects thanks also to its complementary colour properties.

ZINC

Zinc's timeless silvery-grey appearance makes it an excellent choice not only as a stand-alone roofing option, but also when used in unison with slate and other building materials.

Like copper, zinc has become a favourite in contemporary architecture as it is easy to manipulate in bespoke roofing and facade design. Zinc standing seam roofs provide excellent durability and weather resistance.

Zinc also develops a protective patina over time, reducing maintenance worries and costs, whilst providing outstanding longevity. When installed correctly, zinc roofing can last up to 100 years without degradation.

SARKING UNDERLAY

KLOBER PERMO AIR HT

Klober's Permo® air HT is now available in Australia, providing a new option to reduce the risk of condensation forming in the roof space. Custom made for Australian conditions, Permo® air HT is more breathable than any other 'air open' underlay on the market. Current energy efficient design and construction trends have increased the risk of condensation forming, requiring innovative solutions to building breathability. Permo® air HT is the perfect solution.

Air open. Vapour permeable

With its strong 4 layer construction, consisting of UV stabilised PP fleece, a high performance Meltblown layer, and grid customised for the Australian market, Permo® air HT exceeds the stringent Australian standards AS/NZ 4200.1:1994 and AS 1530.2-1993. It is the most breathable air open low resistance medium duty roofing and wall sarking underlay on the market. Suitable for cold and warm roof applications, whether slate, tile or Colorbond®, Permo® air HT allows the roof space to breathe like nothing else.

During and After Construction

Klober Permo® air HT is the ideal moisture management solution both during and after construction. During the drying out period of a building, it minimises the risk of condensation forming and performs well when exposed to moisture, water, wind and humidity, plus it has a flammability index of 0 - AS 1530.2-1993. Its medium duty rating offers superior resistance to nail tear and and an ongoing protective barrier from outside elements.

Available Now

Klober Permo® air HT is exclusively distributed in Australia by Premier Slate. Available in 1.5m x 50m. 15 year guarantee. Recyclable. UV stable for 4 months.

KLÖBER

TECHNICAL DATA

KLOBER PERMO AIR HT

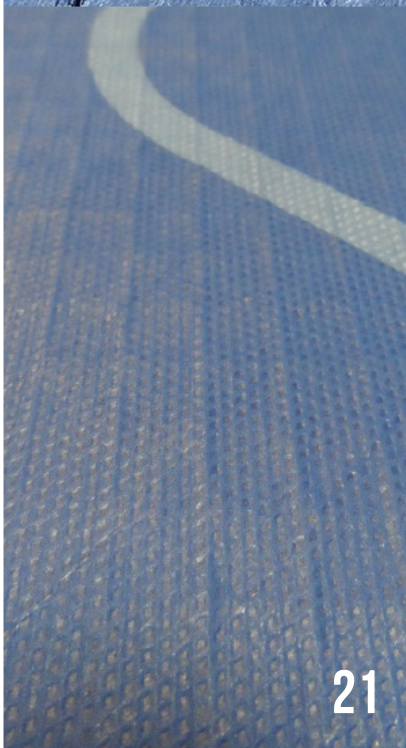
Description	Test Methods	Result
Duty Classification	AS/NZS 4201:1	Medium Duty
Tensile Strength	AS/NZS 4201:1	
-Direction 1		9.9kN/m
-Direction 2		10.6kN/m
Bursting Strength	AS 2001.2.19	598 N
Edge Tear Resistance	TAPPI T470	
- Length Direction		431 N
- Width Direction		532 N
Resistance to Water Penetration	AS/NZS 4201.4	Pass
Determination of Permeabililty of Fabrics to Air	AS 2001.2.34 - 90	N/A
Resistance to Dry Delamination	AS/NZS 4201.1	Pass
Resistance to Wet Delamination	AS/NZS 4201.2	Pass
Shrinkage	AS/NZS 4201.3	Pass
Flammability Index	AS 1530.2	0
Nominal Thickness	AS 1530.2	0.85mm

ADVANTAGES OF AIR OPEN UNDERLAYS

Extremely humid roof conditions can be a result of:

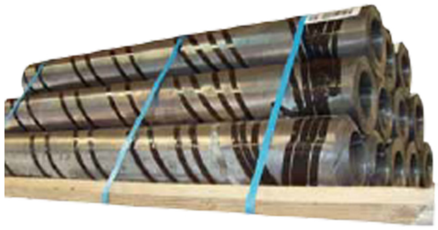
1. Climate (Extreme regional weather conditions e.g very cold)
2. New buildings with high levels of construction material moisture
3. Weak spots in the insulation
4. High level of moisture due to behaviour of house owner

If all these aspects come together or if single ones reach a critical level, high levels of ventilation are an essential requirement to prevent condensation.



ACCESSORIES

Chimney pots



Shim Copper:
For close mitre flashing

Range of specialised tools

- **Ridge Capping**
- **Cable end & Apex Finals**
- **Saddles**
- **Lead:**

  15kg, 20kg, 25kg, 30kg, 35kg and 40kg

- **Copper Clouds:**

  25 + 30mm Ring Shanks

  30, 35, 40 and 50mm Clouds

TECHNICAL INFORMATION

These tables give a brief explanation of the terms that are commonly used throughout the roofing industry. They are by no means comprehensive and the terms may vary in different parts of the world. We suggest that reference is made to BS 6100: subsection 1.3.2: 1989 – Building and Civil Engineering Terms – Roofs and Roofing.

COVERAGE

Size (Nominal)	Lap (mm)																		
mm	50	65	75	80	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155
600 x 350	10.2	10.5	10.7	10.8	10.9	11.0	11.2	11.3	11.4	11.5	11.6	11.7	11.9	12.0	12.1	12.2	12.4	12.5	12.7
600 x 300	11.9	12.3	12.5	12.6	12.7	12.9	13.0	13.1	13.2	13.4	13.5	13.7	13.8	14.0	14.1	14.3	14.4	14.6	14.7
550 x 300	13.1	13.5	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	15.1	15.2	15.4	15.6	15.8	16.0	16.2	16.4	16.6
500 x 300	14.6	15.1	15.4	15.6	15.8	16.0	16.2	16.4	16.6	16.8	17.0	17.3	17.5	17.7	18.0	18.2	18.5	18.7	19.0
500 x 250	17.4	18.0	18.5	18.7	18.9	19.1	19.4	19.6	19.9	20.1	20.4	20.6	20.9	21.2	21.5	21.8	22.1	22.4	22.7
450 x 300	16.4	17.0	17.5	17.7	18.0	18.2	18.5	18.7	19.0	19.3	19.6	19.9	20.2	20.5	20.8	21.2	21.5	21.9	
400 x 250	22.4	23.4	24.1	24.5	24.9	25.3	25.7	26.1	26.6	27.0	27.5	28.0	28.5	29.0					
400 x 200	27.9	29.1	30.0	30.5	31.0	31.5	32.0	32.5	33.1	33.6	34.2	34.8	35.5	36.1					
350 x 250	26.1	27.5	28.5	29.0	29.6	30.2	30.8	31.4	32.0	32.7	33.4								
350 x 200	32.5	34.2	35.5	36.1	36.8	37.5	38.3	39.0	39.8	40.7	41.5								
300 x 200	39.0	41.5	43.4	44.3	45.4	46.5	47.6	48.8											

Values calculated using nominal sizes and incorporating a 5mm joint gap as per BS 8000: Part 6: 1990. Add at least a 5% wastage allowance.

BATTENING AND HOLING GAUGES

Slate Length	Batten gauge mm	m. batten per m2	Holing gauge mm	Batten gauge mm	m. batten per m2	Holing gauge mm	Batten gauge mm	m. batten per m2	Holing gauge mm	Batten gauge mm	m. batten per m2	Holing gauge mm
Headlap		50mm			65mm			75mm			80mm	
600mm	275	3.64	340	268	3.74	348	263	3.81	353	260	3.85	355
550mm	250	4.00	315	243	4.12	323	238	4.21	328	235	4.26	330
500mm	225	4.44	290	218	4.60	298	213	4.71	303	210	4.76	305
450mm	200	5.00	265	193	5.19	273	188	5.33	278	185	5.41	280
400mm	175	5.71	240	168	5.97	248	163	6.15	253	160	6.25	255
350mm	150	6.67	215	143	7.02	223	138	7.27	228	135	7.41	230
300mm	125	8.00	190	118	8.51	198	113	8.89	203	110	9.09	205
Headlap		85mm			90mm			95mm			100mm	
600mm	258	3.88	358	255	3.92	360	253	3.96	363	250	4.00	365
550mm	233	4.30	333	230	4.35	335	228	4.40	338	225	4.44	340
500mm	208	4.82	308	205	4.88	310	203	4.94	313	200	5.00	315
450mm	183	5.48	283	180	5.56	285	178	5.63	288	175	5.71	290
400mm	158	6.35	258	155	6.45	260	153	6.56	263	150	6.67	265
350mm	133	7.55	233	130	7.69	235	128	7.84	238	125	8.00	240
300mm	108	9.30	208	105	9.52	210	103	9.76	213	100	10.00	215
Headlap		105m			110mm			115mm			120mm	
600mm	248	m	368	245	4.08	370	243	4.12	373	240	4.17	375
550mm	223	4.04	343	220	4.55	345	218	4.60	348	215	4.65	350
500mm	198	4.49	318	195	5.13	320	193	5.19	323	190	5.26	325
450mm	173	5.06	293	170	5.88	295	168	5.97	298	165	6.06	300
400mm	148	5.80	268	145	6.90	270	143	7.02	273	140	7.14	275
350mm	123	6.78	243	120	8.33	245	118	8.51	248	-	-	-
		8.16										
Headlap		125m			130mm			135mm			140mm	
600mm	238	m	378	235	4.26	380	233	4.30	383	230	4.35	385
550mm	213	4.21	353	210	4.76	355	208	4.82	358	205	4.88	360
500mm	188	4.71	328	185	5.41	330	183	5.48	333	180	5.56	335
450mm	163	5.33	303	160	6.25	305	158	6.35	308	155	6.45	310
400mm	138	6.15	278	135	7.41	280	-	-	-	-	-	-
		7.27										
Headlap		145m			150mm			155mm				
600mm	228	m	388	225	4.44	390	223	4.49	393			
550mm	203	4.40	363	200	5.00	365	198	5.06	368			
500mm	178	4.94	338	175	5.71	340	173	5.80	343			
450mm	153	5.63	313	150	6.67	315	-	-	-			
		6.56										

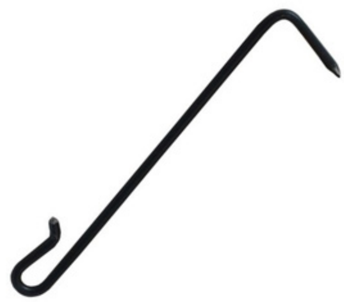
EXPOSURE TO WIND AND RAINFALL

Slates fixed in accordance with the details given in the data below will have adequate resistance to wind loads, wind uplift and rain penetration under most conditions. These tables give minimum recommended laps according to exposure, roof pitch and slate size. Detailed guidance on wind load calculations is given in BS 5534: 2003 and BS 6399, Part 2 : 1997 and Part 3: 1988.

Size (Nominal) mm	**Minimum Rafter Pitch (Degrees)**								
	20	22.5	25	27.5	30	35	40	45 to 75	85
600 x 350	115	105	95	85	80	70	60	55	-
600 x 300	-	-	**95**	**85**	**80**	**70**	**60**	**55**	-
550 x 300	-	105	95	85	80	70	60	55	-
500 x 300	**115**	**105**	**95**	**85**	**80**	**70**	**60**	**55**	-
500 x 250	-	-	95	85	80	70	60	55	50
450 x 300	-	-	-	-	**80**	**70**	**60**	**55**	**50**
450 x 250	-	-	-	-	80	70	60	55	50
400 x 300	-	-	-	-	**80**	**70**	**60**	**55**	**50**
400 x 250	-	-	-	-	80	70	60	55	50
400 x 200	-	-	-	-	**80**	**70**	**60**	**55**	**50**
350 x 300	-	-	-	-	80	70	60	55	50
350 x 250	-	-	-	-	**80**	**70**	**60**	**55**	**50**
350 x 200	-	-	-	-	80	70	60	55	50
300 x 200	-	-	-	-	**80**	**70**	**60**	**55**	**50**
250 x 150	-	-	-	-	80	70	60	55	50

Size (Nominal) mm	**Minimum Rafter Pitch (Degrees)**								
	20	22.5	25	27.5	30	35	40	45 to 75	85
600 x 350	-	130	120	110	100	90	80	70	-
600 x 300	-	-	-	-	**100**	**90**	**80**	**70**	-
550 x 300	-	130	120	110	100	90	80	70	-
500 x 300	-	**130**	**120**	**110**	**100**	**90**	**80**	**70**	-
500 x 250	-	-	-	110	100	90	80	70	65
450 x 300	-	-	-	-	**100**	**90**	**80**	**70**	**65**
450 x 250	-	-	-	-	100	90	80	70	65
400 x 300	-	-	-	-	**100**	**90**	**80**	**70**	**65**
400 x 250	-	-	-	-	100	90	80	70	65
400 x 200	-	-	-	-	**100**	**90**	**80**	**70**	**65**
350 x 300	-	-	-	-	100	90	80	70	65
350 x 250	-	-	-	-	**100**	**90**	**80**	**70**	**65**
350 x 200	-	-	-	-	100	90	80	70	65
300 x 200	-	-	-	-	**100**	**90**	**80**	**70**	**65**
250 x 150	-	-	-	-	100	90	80	70	65

HOOK FIXING METHOD



The use of hooks to fix slate has been widely used in Europe for the over 50 years, and is becoming increasingly popular in the UK. Hooks can be used in the most exposed locations and because the slate is supported at four points, the resistance to wind uplift is extremely effective. The top edge of the slate is gripped under the top part of the hook.

The shank of the hook runs down along the side of the slates in the next course, and the return grip at the bottom of the hook holds the tail of the slate on top. This means that each slate is held in place by four hooks, one at the head, one at the tail and one on each side. The one at the tail stops the slate from sliding down, the ones at the side prevent it from turning and the one at the head holds it to the batten.

Hooks are therefore more functional, quicker to work with and perfectly safe. Repair work is also much easier.

When hooks are used the slates are not tightly pressed together. The hooks positioned at the side of the slate form two fine channels, up which there is considerable rising capillarity. Slates still need to be three times the headlap, but width can be less than twice the headlap because there is less creep of water and no nail holes.

The preparation for the roof carpentry is exactly the same as for slates fixed with nails. Only the method of fixing is different. Because of the increased rising capillarity when hooks are used the headlap values will change.

Cramp Hooks

Used to clip over the battens. The head of the hook (the clip on part) must be the same thickness as the batten (usually 25mm)

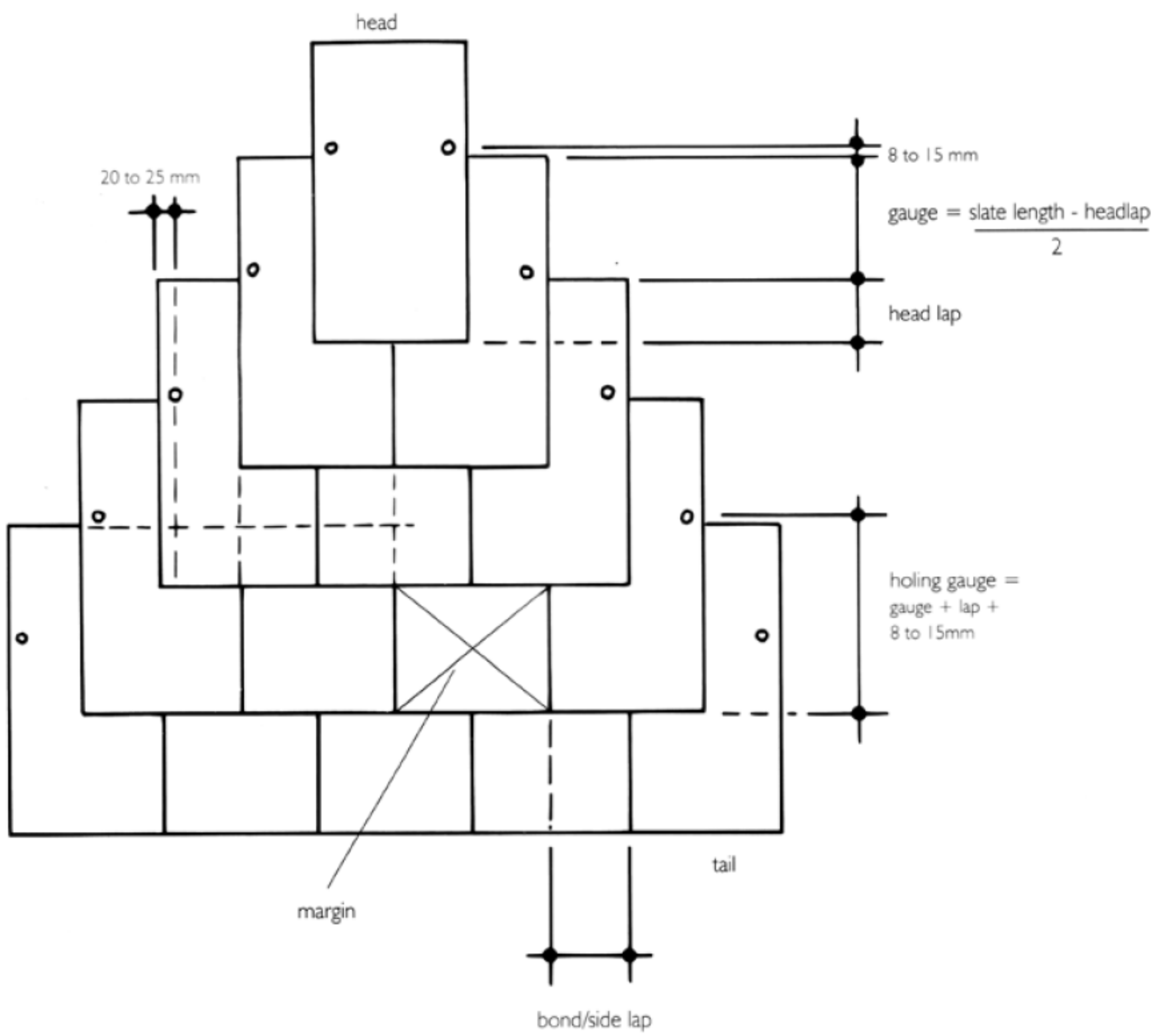
Pointed Hooks

Are usually used when sarking forms the support, which are driven directly into the boards. The boards should be 19mm thick, but in very windy areas a thickness of 25mm may be required.

Hooks should be made of stainless steel 18 / 10 grade (18% chromium, 10% nickel) and can be supplied in a matt black finish if required. When a hook position on a battened roof coincides with a rafter, a pointed hook needs to be used. This means that around 15 – 20% of the hooks used will be pointed hooks, even when cramped hooks are chosen as the main method. It should be remembered that slates on verges and eaves must be nailed down even if the rest of the roof is fixed with hooks.

TERMINOLOGY

The diagram below gives a brief explanation of the terms that are commonly used throughout the roofing industry. They are by no means comprehensive and the terms may vary in different parts of the country. We suggest that further reference is made to BS 6100: Subsection 1.3.2:1989 - Building and Civil Engineering Terms - Roofs and Roofing.



THE SLATING PROCESS

Setting out the Roof

For a detailed description of the process of roof slating, reference should be made to AS 4597: 1999 Code of Practice for Slating and Tiling. However, the basic steps are set out below:

1. Sort and hole slates where required. Slates should be holed from the underside to the correct gauge measured from the tail of the slate using a slate-holing machine. At the same time the slates should be sorted into groups of equal thickness where required, there should be at least 3 and some times as many as 5 differing thickness of slate.

2. Fix the underlay as specified

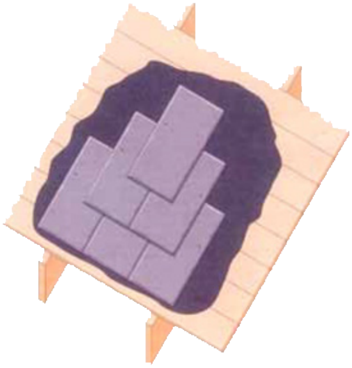
3. Mark out the roof to the correct battening gauge. The gauge may be adjusted to divide the slope length into equal margins provided the specified lap is not reduced.

4. Batten the roof (see Battening Gauge table).

5. Check the actual width of slates and mark out perpends on battens at correct centres allowing 5mm joint gaps.

SLATING

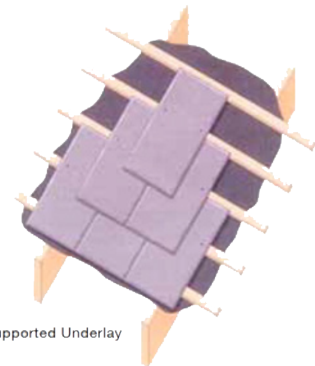
6
Where required load out the slates on the roof so that the thickest slates are in the lowest courses and the thinnest near the ridge.



Slating to timber boarding
(Cold Roof)

Fix under eaves course bed up.
7

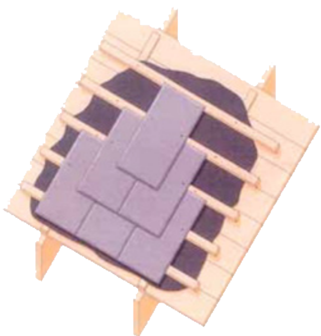
8
Fix the slates to perpend lines, cutting individual slates as necessary to fit hips and valleys. Each slate must be fixed with two nails.



Unsupported Underlay

Batten the roof (see Battening Gauge table).
9

Vapour permeable
underlay to BS 5534



10
In order to maintain adequate laps and allow proper fixing, slates must not be cut too narrow. In general no slates should be less than 150mm wide.

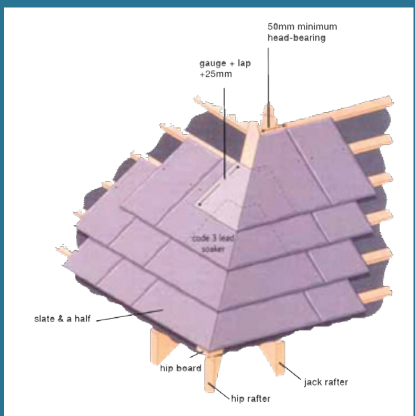
At all verges and abutments, alternate courses must be started either with half-width slates or with slate-and-a-half widths to maintain bond. If the half-slate would be less than 150mm, slate-and-a-half widths must be used. At valleys, hips and other places where slates must be cut on the rake, it is essential that slates be of an adequate width to accommodate secure fixings.
11

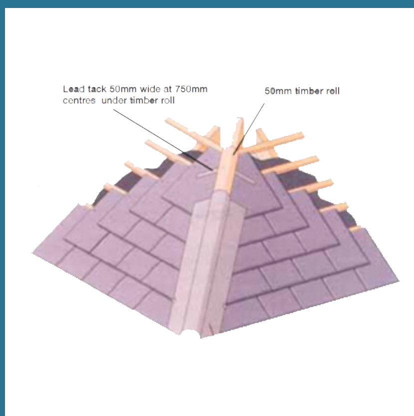
HIPS
MITRED HIPS

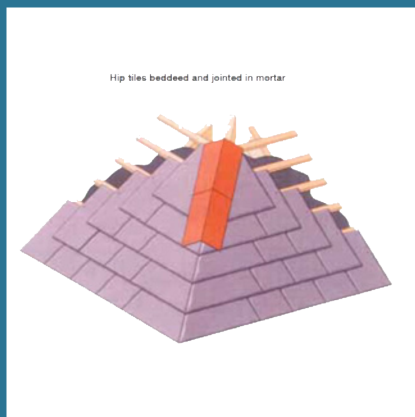
Cut slates neatly and accurately, bevelled edge down. Interleave with lead soakers to form a straight, weather tight, close-mitred junction. Fix soakers by nailing to battens at top edge.

Slate & A Half: The use of slate & a half on mitered hips will avoid small pieces of slate being face fixed & sealed with silicon sealant

N.B. Careful consideration must be given to mitred hip details at low roof pitches and in areas of severe exposure. For advice contact Premier Slate.







TERRACOTTA TILED HIP

First hip should be mechanically fixed to the hip tree with copper strap, ridge may need to be drilled to accommodate this. Cut slates to fit closely at junction. Make weather tight with ridge tiles laid to a true line with edges and joints solidly bedded in mortar, neatly struck off flush as the work proceeds.

Shape first tile to align with corner of eaves and fill end with mortar and slips of slate finished flush. Mortar for bedding hip tiles 1:3 cement to sand pigmented to approved colour.

METAL ROLL HIPS

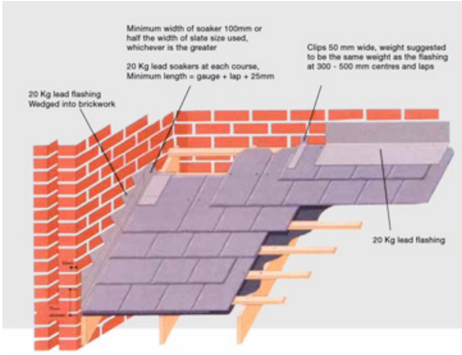
Metal roll hips should conform to sheet metal technical recommendations.

For advice on pitches less than 30 degrees. contact the Premier Slate.

ABUTMENTS AND RIDGES

Sloping Edge

Cut slates as necessary and interleave with lead soakers to form a close, weather tight abutment. Fix soakers by turning down over the head of each slate. Ensure that lead flashings are neatly dressed down over soakers immediately after slating is complete.

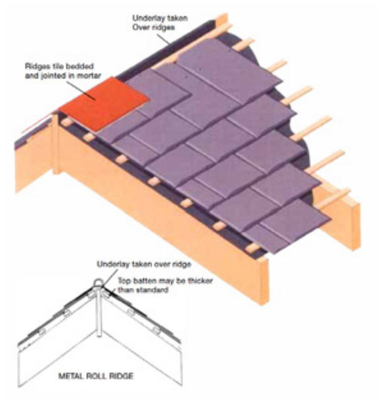


Tiled Ridge

Finish slating with a head-nailed short course to maintain gauge.

Make weather tight with ridge tiles laid to a true line with edges and joints solidly bedded in mortar, neatly struck off flush as the work proceeds.

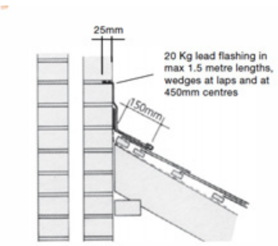
Fill ends of ridges at gables with mortar and slips of slate finished flush. Mortar for bedding ridge tiles, 1:3 cement to sand pigmented to approved colour.



Top Course

Turn underlay 100mm up abutment. Finish slating with a head-nail short course to maintain gauge.

Ensure that flashings are fixed immediately after slating is complete.



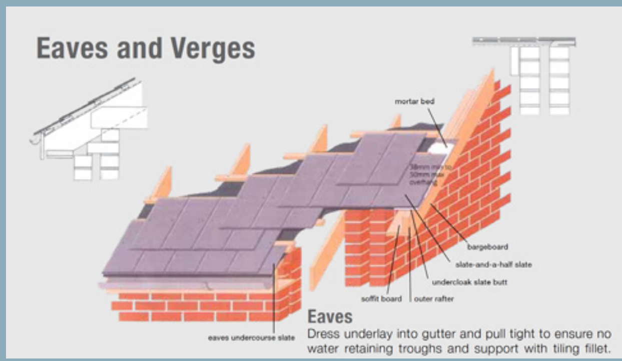
Metal Roll Ridge

25 Kg or 30 Kg lead ridge, 460 to 500mm wide, max 1.5 metre lengths. Lead tack 50mm wide at 150mm centres, under timber roll. Horizontal laps at 150mm.

EVES AND VERGES

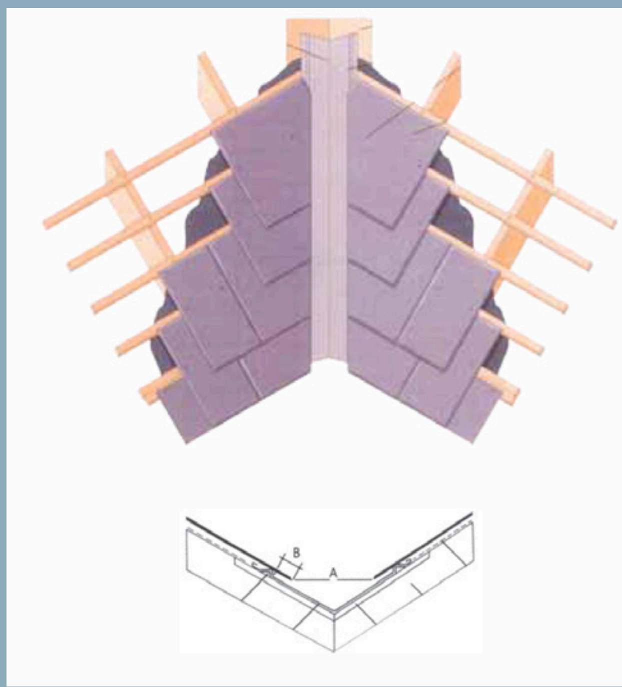
Eaves

Dress underlay into gutter and pull tight to ensure no water retaining troughs and support with tiling fillet. Fix under eaves and eaves course of slates with tails aligned and projecting 45mm (min.) to 55mm (max.) beyond the facia tilting fillet or wall face. Longer slate nails may be required at eaves courses.



Verge on Bargeboard

Wet verge - Ensure that undercloak and underlay are well lapped. Nail undercloak fair face down to a true line and projecting 25mm (min.) to 50mm (max.) from face of bargeboard. Fill the gap between undercloak and slates with mortar and strike off to give a neat flush joint. Mortar for bedding and pointing to be 1:3 cement to sand pigmented, to match colour of slates.



Roof pitch	Area m2 (on plan)	Rainfall rate mm/hour		
		75	150	225
20 - 22	<25 25 - 100	100 125	125 150	125 200
22.5 - 29	<25 25 - 100	100 100	100 125	100 150
30 - 34	<25 25 - 100	100 100	100 100	100 125
35 +	<25 25 - 100	100 100	100 100	100 100

Rafter length maximum = 5m for areas of up to 25 m2
Rafter length > 5m and < 10 m for areas of up to 25 – 100 sq m
No vertical projections drain on roof
For further information please contact Premier Slate

Dry Verge

Keep the bargeboard up to a level with the top edge of the batten, the slates will then over sail the barge.

Verge on Brickwork

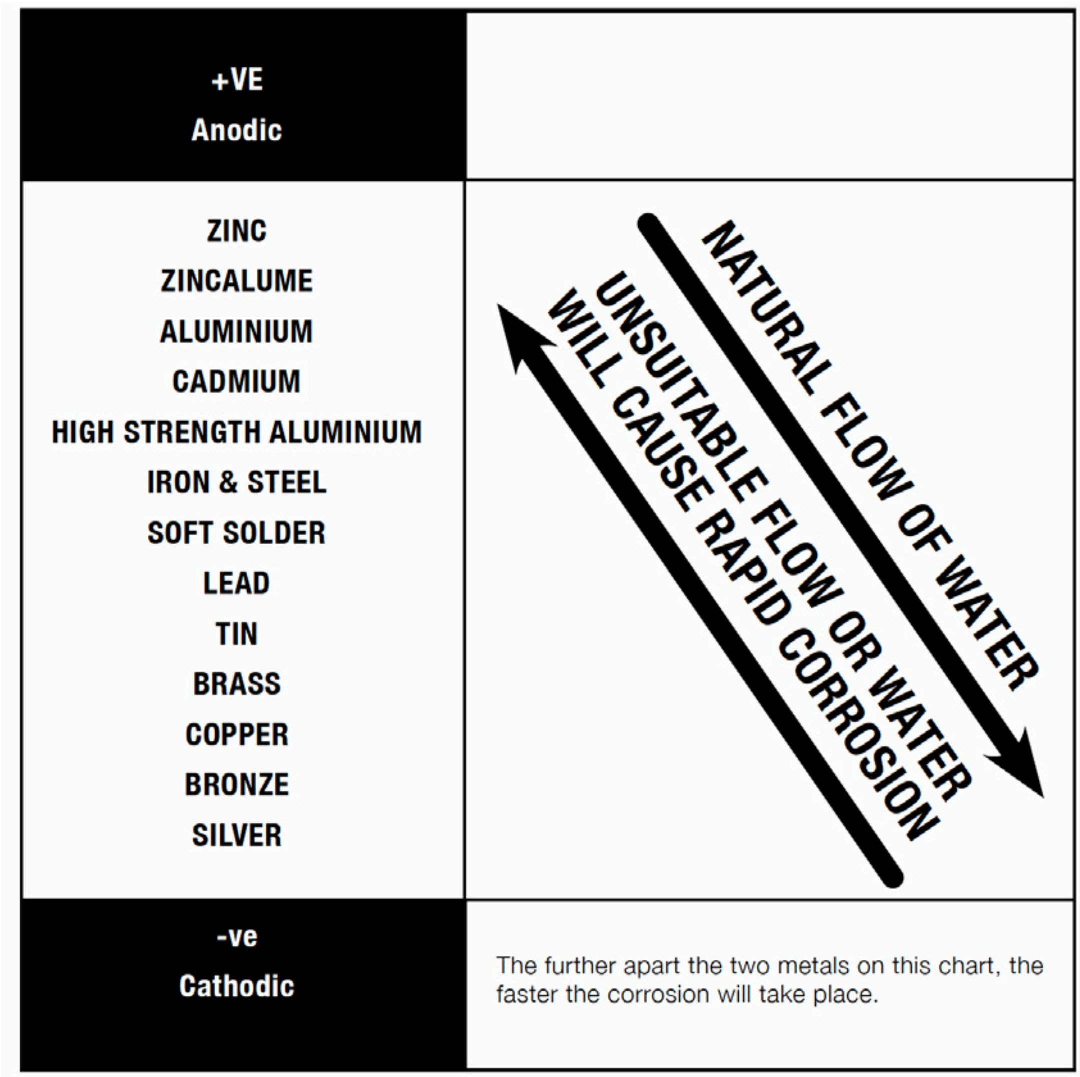
Ensure that undercloak and underlay are well lapped. Bed undercloak in mortar fair face down, to a true line, projecting 25mm (min.) to 50mm (max.) beyond face of wall, and point neatly to match in with joints in walling. Cut verge slates as necessary and fix flush with undercloak. Fill the gap between undercloak and slates with mortar and strike off to give a neat flush joint. Mortar for bedding and pointing to be 1:3 cement to sand pigmented, to match colour of slates. Note: Where possible use slate-and-a-half slates to alternate courses to form verges.

Mitred Valley

Cut slates neatly and accurately and interleave with lead soakers to form a straight, close, weathertight mitred junction. Fix soakers by nailing to battens at the top edge. Minimum recommended pitch is 50 deg. For pitches below this please contact Premier slate.

CORROSIVE PATH

This metal guide chart lists commonly used metals in a "corrosive path". If any of these two metals are in damp contact or a runoff situation, the metal higher on the table will sacrifice itself i.e. cor-rode to protect the metal lower on the scale. When it comes to the flow of water from one metal to another, the simple rule is to remember that you can run water downhill but not up. For example, zinc to copper is OK but copper to zinc is not recommended.



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