

United Roofing Products

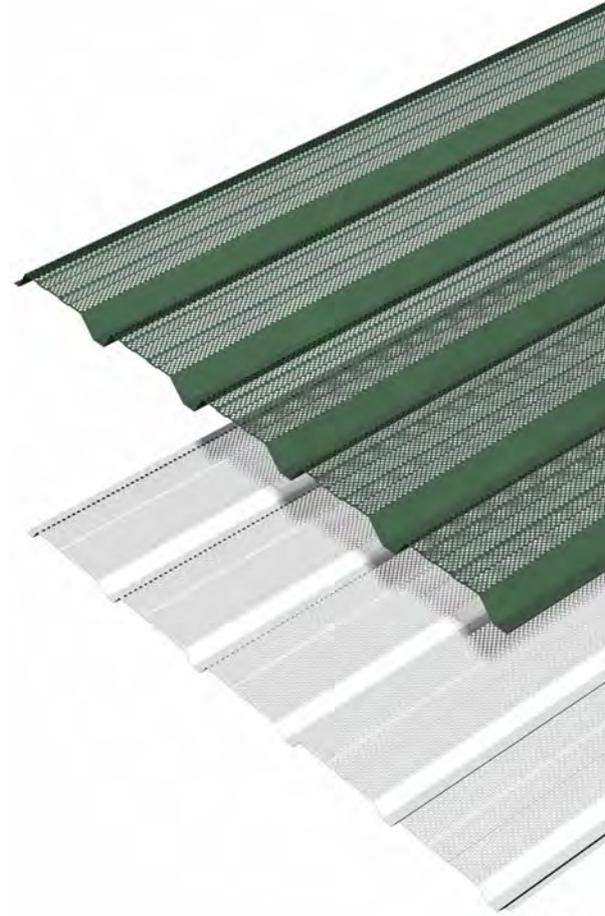


HIGHLIGHT
Natural Ventilation and Light

for Livestock and Equine Buildings



United Roofing Products
Manufacturers of metal roofing sheets



HIGHLIGHT is a perforated steel side cladding sheet that gives superb ventilation combined with natural light transmission.

Manufactured from pre-galvanised steel coil that is polyester painted on both sides, in a choice of grey external with white internal or juniper green external with light grey internal. It is then perforated in a set pattern, profiled and cut to the customers required length.

HIGHLIGHT has been installed on agricultural buildings of all types, across Great Britain over the last 10 years.

Equestrian arenas, beef, dairy, and sheep all benefit from HIGHLIGHT's features.

Designing ventilation and light into livestock and equine buildings has significant benefits for the well being of all animals. Inadequate ventilation increases the incidence of sickness in animals, particularly Pneumonia leading to loss of production/animal growth and increases the use of antibiotics and often vet bills. Poor lighting design is also detrimental to the internal atmosphere of the building and its occupants.

HIGHLIGHT ventilated wall cladding, especially when combined with ridge ventilation, solves these issues and also allows clear visibility from inside out and outside in.

Requirements

URP's HIGHLIGHT sheets are CE marked to BS EN 14782:2006.



Features

- Excellent ventilation and natural lighting
- Light Grey external with White internal finish *or*
- Juniper Green external with Light Grey internal finish
- Lightweight yet rigid
- Made to measure

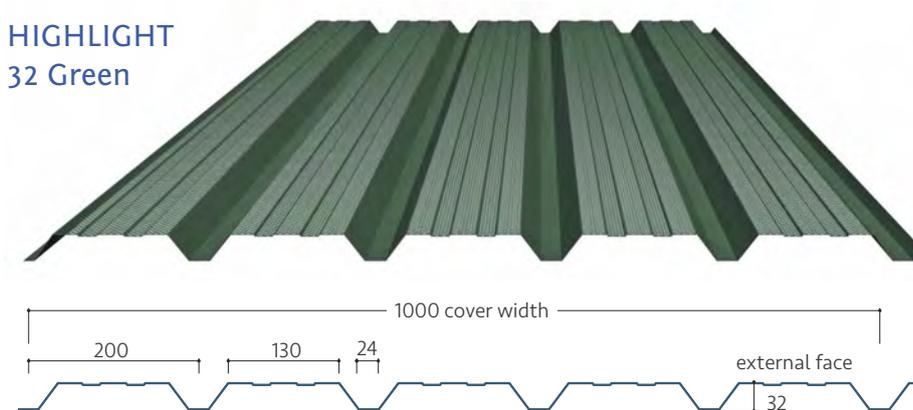
Benefits

- Improved well-being of all animals
- Blends with the environment
- Bright clean interior
- Rapid, simple installation
- Suitable for all new build and renovations



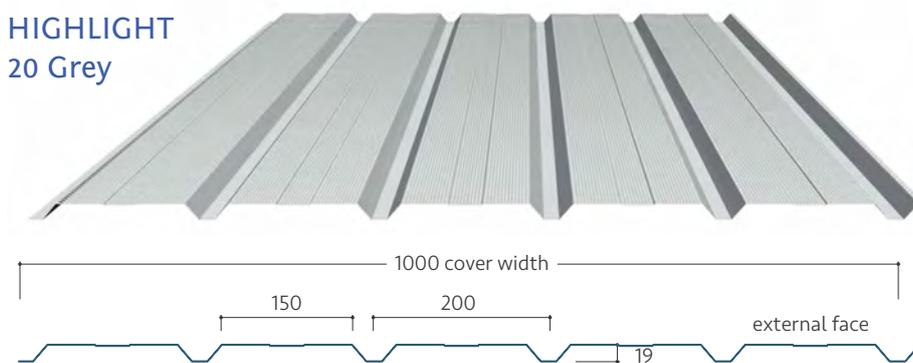
Technical Description & Performance

HIGHLIGHT 32 Green



HIGHLIGHT 32 Green: a 32mm deep polyester coated panel.
External face (weather) is juniper green. Internal face is light grey.

HIGHLIGHT 20 Grey



HIGHLIGHT 20 Grey: a 19mm deep polyester coated panel.
External face (weather) is light grey. Internal face is white.

HIGHLIGHT profile properties

Profile	Cover width	Thickness (nominal)	Profile depth	Length(s)*	Weight (approx.)
HIGHLIGHT 32 Green	1000mm	0.5mm	32mm	1.0m - 6.0m	4.0kg/m ²
HIGHLIGHT 20 Grey	1000mm	0.4mm	19mm	1.5m - 4.0m	3.0kg/m ²

* made to measure.

Fire

HIGHLIGHT achieves Class 1 surface spread of flame to BS 476-1: 1997, equivalent to Class O as defined in Approved Document B; they achieve class FAA/SAA to BS 476-3:2004.

Biological

HIGHLIGHT sheets are unaffected by mould, mildew and fungi, and do not support vermin.

Steel coils are first galvanised on both sides and then polyester colour coated on both sides.

The coils are then factory punched to URP's unique specification ventilating approximately 25% of the surface area of the finished product. The punching process is similar to the factory shearing for cutting sheets to length, smearing the galvanising around the edges of the holes so inhibiting rust.

The coils are then roll formed and the automated process cuts the sheets to the required length to suit the building.

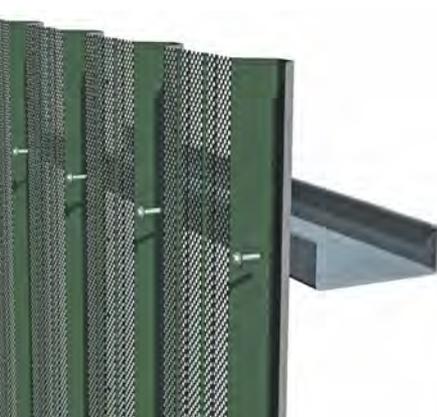
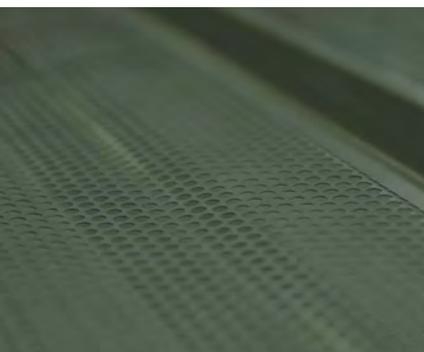
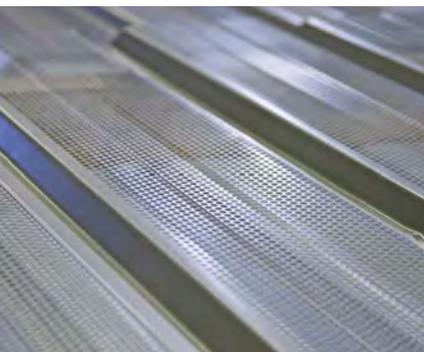
Finishes

Polyester coating: a factory applied coating which is suitable for use on agricultural buildings.

Durability

It is reasonable to expect a life to first maintenance of 8-10 years.

Material used to manufacture HIGHLIGHT for projects across the UK installed since 2003 have shown little corrosion or need for excessive maintenance.



fixing HIGHLIGHT to purlins



fixing at side laps

Design

HIGHLIGHT allows considerable ventilation and light into the building.

On elevations subject to severe exposure or prevailing winds it is recommended that a matching profiled steel sheet manufactured by United Roofing Products be used instead of HIGHLIGHT.

HIGHLIGHT should always be installed above solid walls and out of reach of the livestock to avoid damage and possible injury to animals. Barges, corner pieces, drips and flashings are made to customer's design in 3m lengths.

Colour matched fixings are available from United Roofing Products.

Installation

HIGHLIGHT has sharp edges, especially at the top and bottom and strong gloves should be worn when handling and installing it.

HIGHLIGHT should be fixed through every valley to timber or metal sheeting rails with TEK screws at maximum 1.8m centres. The screws can be supplied with loose coloured caps or factory coloured heads.

Fixings to Light section steel should be at least 25mm long, and embedment into timber purlins should be at least 30mm.

Like all metal sheets, HIGHLIGHT should be isolated from treated timber by, for example, a DPM, to prevent corrosion. The sheets are installed with the narrow unperforated valley in contact with the supports. This provides a gap between the perforated HIGHLIGHT sheet and the structure, allowing water and dirt to escape outside the building.

Side laps are formed by lapping the female crown of a profile over the male crown of the adjoining profile. The exposed edge of a lap should face away from the prevailing wind.

If the cladding is installed at a low level outside the building it is recommended to fit a drip flashing as protection from the serrated edge of the sheet.

Delivery, handling & storage

HIGHLIGHT sheets are supplied banded when delivered to site. Offloading is the responsibility of the customer.

HIGHLIGHT should be off-loaded to a storage area, which should be dry and well away from traffic. Packs may be stacked using suitable wooden bearers and packers. Bearers should be placed above each other.

Handle HIGHLIGHT carefully to avoid marking weather sheets. Lift sheets from the pack – do not drag them. Observe site health and safety procedures and the results of manual handling and other assessments.

Maintenance

Do not allow build-up of straw and other debris to accumulate as this will reduce performance and may cause corrosion. Occasional washing down with a hosepipe will keep HIGHLIGHT clear of any dirt and preserve its appearance.

Minor scuffing of the colour coating should not be treated. Deeper scratches which reach the substrate should be repaired with touch-up paint.

The touch-up paint should only be applied to the original scratch using a fine paint brush. As touch-up paint will dry to a slightly different colour than the original coating the area which is touched up should be kept as small as possible.

Case study

Scott & Verity Perry
Rosevidney Livery Stables,
Marazion, Cornwall



Scott and Verity Perry installed HIGHLIGHT wall panels at Rosevidney when they built a brand new 22m x 60m indoor school in 2009.

'We wanted to make sure we had plenty of light coming in so that we didn't have to use the lights as much', says Scott, 'It has worked really well - we only need to put the lights on when it gets dark. Other yards need to have lights on 8 hours a day, so that's a saving for us of over £1,400 a year'.

The couple have been running the yard since 1988, keeping 20 horses at livery and providing regular Pony Club and Riding Club competitions and private lessons. *'The new school is great because it allows for year round riding and training in the dry. We feel it's very important to keep upgrading the facilities so they are as good as they can possibly be'.*

The panels were very easy and relatively cheap to install and also favourable with the local planning department. *'We put them along the whole side of the building and because the exterior is grey, it looks like an ordinary clad building from the outside', says Scott.*

'One of the conditions of our planning permission was a neutral shade, so it's perfect for that. At a cost of about £2,000 installed, I think it is probably cheaper than timber cladding. It's light and easy to put up - you can just pick it up with one hand so we literally put it up with a ladder and a few hand tools'.

Although the sheeting is metal, it is galvanised to prevent rust - and with 25% of the wall being perforated it allows plenty of light and air in, without letting in the rain and snow. By providing natural light, it also creates a more natural working environment without shadows to spook the novice horse.

HIGHLIGHT's perforations allow light and air through 25% of the clad area in an even spread, so the building is always light and well ventilated.

'It is performing very well and the horses seem to like it. It's nice and airy inside in the summer and doesn't get hot like some indoor schools do', says Scott, 'On frosty days there is no sign of frost inside, either. It's also nice to be able to see out when you are riding. If you have corrugated sheets or wood you can't see through them and spending all day in the school you can feel a bit cooped up. This way we can see straight out across the farm'.

'It's done so much more than we have expected. Our main reason for installing it was to save on running costs, and it's done that. But it's also made the school a much nicer environment to work in for horse and rider'.



Indoor school owners could save thousands of pounds on electricity by installing an innovative see-through wall.

While many riding schools rely on plastic roof lights and fluorescent lighting, they could instead opt for a more natural, and cheaper, alternative. HIGHLIGHT - a perforated metal wall sheeting - creates a light and airy environment with excellent ventilation and natural daylight without allowing in wind and rain.

'Roof lights often give uneven lighting across a building, with the creation of shadowy areas and strong light beams', says Ali - recreational rider and Founder of United Roofing Products.

'Electrical lighting can also create shadows, and is expensive to glass or plastic windows often result in a stuffy atmosphere in the summer'.

'However, it doesn't allow in wind and rain. It is like standing outside but without the weather', adds Ali.

Originally developed to improve health and welfare in livestock buildings, it is now in great demand for equestrian use, including as walling on indoor schools and equine pools.

Beef

Case Study

Colin & Peter Grabham



Colin Grabham and his son Peter have been using HIGHLIGHT perforated sheets on their cattle sheds at Watton Farm, Halberton, Devon, since 2003. *'We started with just one shed and found it so good that we've since put it on two more buildings, including on three sides of 90 x 45 ft barn'*, says Colin. The family sell beef locally from 100 Limousin x and Longhorn suckler cows, which are grazed during the summer and loose housed with young stock on straw over the winter.

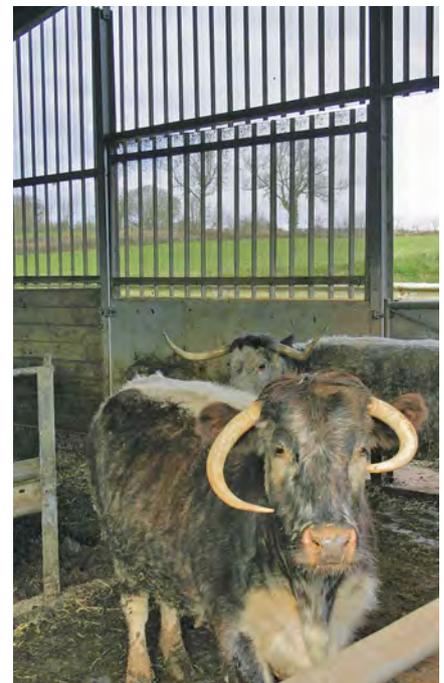
'It's brilliant - there's plenty of light and air, and the dust doesn't stick to it like wooden boarding'. Colin adds, *'When you're blowing straw in, it doesn't stick to the metal at all, so it's much cleaner and the holes don't clog up like other perforated products'*.

They have also noticed considerable health benefits. *'We have hardly had any pneumonia since we installed it'*, says Peter.

'The buildings are much lighter and airier. It's like standing in the fresh air, but you don't get wet if it rains or snows and it keeps the birds out'.

'You don't need any lights and you can see straight through to the outside. It's definitely a better working environment and healthier for the cows. Wooden boards can harbour more bugs than metal, and as we continue to replace boarding with the HIGHLIGHT, the cows' health is getting better and better'.

The sheds all have raised ridges to allow airflow out, but with HIGHLIGHT there is no need for roof lights, preventing the risk of hot spots and dark areas. *'It hasn't rusted and it's very easy and light to put up. If we were putting another building up we would definitely use it. The benefits of extra light and better health mean it pays for itself pretty quickly'*.



Case study

David Snell
Devon Farmer



David and his sons Mark and John are enterprising Devon farmers who are always ready to look and consider new methods and products to enhance their farm and skills.

With two Delaval milking robots handling the daily chore of milking the 150 strong herd, they set about improving the winter housing and feeding areas.

Having spent many hours researching the best place to position the milking units, alterations were required to best utilise existing space whilst keeping costs affordable.

Smaller stock holding pens were removed to open up two bedding areas either side of a feed passage with straw for bedding being mechanically blown into the rest area; however it was important to prevent dust and straw entering the milking units and slatted area.

Cullompton based United Roofing Products were approached to see if their ventilated wall cladding HIGHLIGHT would be suitable.

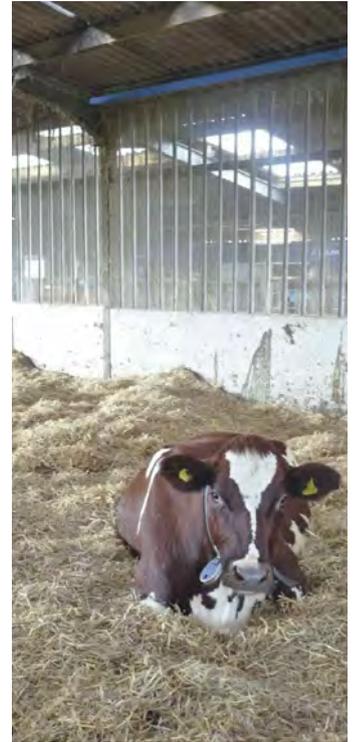
HIGHLIGHT acts as a cladding, which allows both superb ventilation and light transmission, whilst being bird and vermin proof.

Following discussions the cladding, which is quick and easy to fit, was installed both internally and on external walls within the building.

HIGHLIGHT used on external walls allows light and fresh air into the building providing a natural, sheltered area. David Snell commented: *'It was interesting to see that, during the first winter of use, groups of cows preferred to lie where the HIGHLIGHT was installed rather than in the darker wooden clad areas'*.

In fact it's not only his cows who appreciate the improved environment - he also enjoys the view!

With regards to scenery and view, the cows benefit from being able to see the milking parlour and its operation; David is confident this helped his cows settle in quickly to the new milking system.

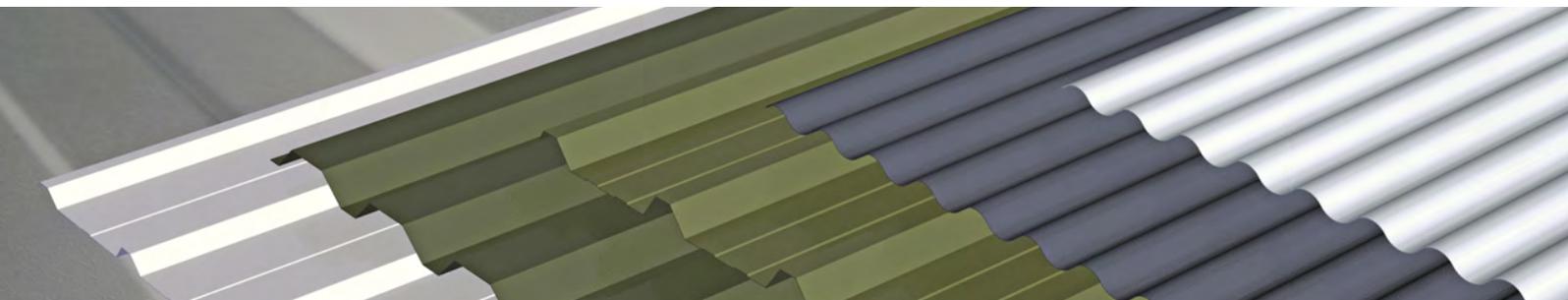




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Technical Support

We offer free technical support for all our products, including:

- technical data sheets;
- copies of test certificates;
- loading calculation;
- design and installation guidance.

Call us on 01884 839302 or email queries to sales@unitedroofingproducts.com.

Copies of all our product information are available on our web site:
www.unitedroofingproducts.com

Environmental Credentials

We are keen to reduce the impact our business and processes have on the environment and the communities we live in.

While the introduction of sustainable construction methods is a challenge to the whole construction industry, our main raw material – steel – is widely recycled: 85 - 90% of steel from demolition goes for re-use and 40% of steel used in new construction has been recycled.

By using modern machinery and upgrading our facilities we are continually reducing the impact of our products on the environment, and improving their contribution to the long-term performance of buildings.

As well as a profiled sheet manufacturer, we are also a major distributor of:



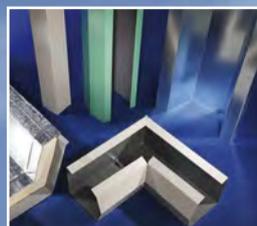
Composite panels



Purlins



Fixings & sealants



Gutters



Aluminium products