



SURECLAD[®]
ENGINEERED STONE[®]
VENTILATED FACADE



Shackerley is an independently owned British manufacturer, prefabricator and distributor with a rich industrial heritage, having served the architectural and construction industries for over 50 years.

Ventilated cladding specialist

For the past two decades our core business has been the prefabrication and supply of ventilated cladding systems, incorporating high quality contemporary and traditional façade materials. Heavy investment in specialist facilities, equipment and training at our Lancashire factory has underpinned our continuous expansion and portfolio development, and today we are widely recognised as one of the UK's most successful suppliers of external cladding solutions.

SureClad® façades

Today Shackerley's SureClad® façades are specified across the UK and beyond, enhancing new build developments and transforming existing properties in every sector of the market. Our cladding offer includes premium façade materials, ranging from the engineered stone ranges you will find in this brochure through to ceramic granite, quarried granite and limestone, crystallised glass and terracotta, all available in large and extra large formats.

Manufacturing & service

Every façade we supply is delivered to site as a fully prefabricated, 'installation-ready' SureClad® system, and all prefabrication work is carried out off-site under ISO 9001 accredited quality controlled conditions at Shackerley's Lancashire factory.

Where engineering, technical design, performance longevity and aesthetics are concerned, our aim is to deliver a superior product to meet your specification. This product offer is backed by expert technical service from a highly experienced team of in-house consultants able to provide specialist advice and assistance at every stage throughout your project.

Engineered stone - an ideal cladding material

Shackerley's Engineered Stone offers an exceptionally attractive, strong and durable exterior cladding solution with a range of benefits for the specifier and client alike.

A natural product

Although it is classed as a composite material, Shackerley's Engineered Stone should not be confused with conventional agglomerates. It is the result of a state of the art production process which combines a very high percentage of crushed and refined quarried stones with a minimal amount of highly specialised bonding agent (typically 6-9%). The exceptionally high natural stone content delivers a high performance homogeneous cladding material with the beauty and aesthetics of quarried limestone, granite or marble.

Strong and comparatively lightweight

Large format engineered stone panels are very strong as they have none of the flaws, defects and weaknesses inherent in quarried stones. Façade systems can be specified using panels that are much thinner and lighter, yet even stronger than their quarried counterparts, greatly reducing loadings on the building and the substructure. The relative light weight of the panels also makes the façade system easier to transport, handle and install.

Heritage and styling

Produced in Italy, the engineered stone in Shackerley's SureClad® collection is inspired by the rich history of Verona, with styling reinterpreted to contemporary tastes. A wide range of colourways is available, and façade panels are offered in a choice of honed and sand textured finishes.

Versatile formats

Shackerley's Engineered Stone is produced in massive blocks which are cut to create very large (3060 x 1230mm) slabs in 15mm and 20mm thicknesses as standard, and with 30mm thicknesses to special order. These large slabs are then precision cut to the required façade panel size at Shackerley's ISO 9001 quality accredited production facility using specialised heavy duty cutting equipment. All panels are then prefabricated by Shackerley, ready for installation as part of an installation-ready SureClad® Hang On (or SureClad® Access) System.

Because Shackerley's Engineered Stone panels originate from blocks, it is possible to supply curved engineered stone panels, cut to a radius. These gently rounded large format panels can then be prefabricated as normal for use in conjunction with a SureClad® system.

Fire resistance

When tested in accordance with BS-EN 13501-1 for reaction to fire, Shackerley's Valpolicella engineered stone panels together with SureClad® support system mounting profiles, including a ventilated cavity, as required by the standard for ventilated façade applications, achieved a classification of A2-s1-d0 depending on colour. The system is therefore classed as being of limited combustibility as defined by the standard.



Surface treatments

Various finishing treatments can be applied to the surface of engineered stone to deliver different aesthetic effects as the images below demonstrate.*



Honed 120

A honed 120 finish is created when the surface of the stone is abraded with a series of diamond coated grinding wheels in order to produce a flat, satin smooth finish which enhances the natural colour of the stone.



Honed 200

A honed 200 finish is created when the surface of the stone is abraded with a series of diamond coated grinding wheels in order to produce a flat, semi-polished, low sheen, smooth finish which enhances the natural colour of the stone.



SBM Microsabbaiato

A SBM microsabbaiato finish is created when the surface of the stone is blasted by very high pressure water-jetting. A microsabbaiato surface is smooth to the touch, but pitted with tiny indentations giving a very natural appearance to the stones surface.



SBH Sabbaiato

A SBH Sabbaiato finish is created when the surface of the stone is blasted by very high pressure water-jetting. A Sabbaiato surface is slightly textured to the touch, and pitted with indentations giving a very natural appearance to the stones surface.

**Please note, the results can vary greatly from one stone to another and from factory to factory so samples should always be requested.*

How engineered stone is produced

Step 1

Raw materials

Engineered stone is classed as a composite material but it is primarily made of natural stone, sourced from various quarries.



Step 2

Arrival at factory

Large rocks are delivered from the quarries to the factory ready for sorting and processing. The engineered stone used in external façade applications, produced in block format, is based on marble.



Step 3

Sorting, crushing and cleaning

The large rocks are sorted and crushed into smaller more manageable sized pieces and cleaned to remove impurities.



Step 4

Grinding and storage

The smaller rock pieces are then ground to a very fine power aggregate and stored in large silos, ready for mixing. The size of the granules and their pigmentation will determine the aesthetic characteristics of the engineered stone produced.



Step 5

Mixing and moulding

The fine powder aggregate is then mixed with a minimum quantity of specialised bonding agent. The composite material is then fed into block moulds, compacted under vacuum* and cured in ovens.



**See overleaf for processes specific to Shackerley's engineered stone.*

Step 6

Storage of uncut blocks

The blocks are stored in the open air, typically for at least a week, where the curing process is completed. This 'ageing' stage in the process ensures that the resulting material is stronger than the quarried elements from which it is produced.



Step 7

Cutting blocks into slabs

Once fully cured, the large blocks can be cut into slabs of the required thickness (typically 15, 20 and 30mm). As each slab is being cut from a solid block, it is possible to cut curved pieces as well as flat slabs.



Step 8

Surface finishes

At this stage each slab is processed further to deliver the required surface finish. Engineered stone used in external facade applications is usually supplied with a honed or sand textured finish.



Step 9

Final inspection

Every stage of the production process is undertaken in quality controlled conditions and before the finished engineered stone slabs leave the factory they are subjected to a final visual inspection. Every batch is also tested in the factory's in-house R&D facilities prior to despatch.



Shackerley's Valpolicella Engineered Stone façade panels are manufactured in accordance with the requirements of BS-EN 15286.



Engineered stone - a superior product

Shackerley's Engineered Stone is procured from a supplier boasting cutting edge production processes developed and proven by its in-house R&D teams over many years. As a result of these innovative processes, the engineered stone supplied has superior aesthetics, physical qualities and technical performance and lower environmental impact (VOC emissions) compared with other composite stone products manufactured using traditional block production techniques.

'New generation' resin

Key factors in the production process include the use of a highly specialised bonding agent (new generation polyester resin) and the innovative manner in which the amalgamation of fine powder aggregate and bonding agent are compacted and cured.

Vibration and compression under vacuum

The amalgamated material is compacted by vibration and simultaneous compression under vacuum conditions and then cured in a two phase (primary and secondary) process in two separate storage areas at different controlled temperatures using specific curing agents and promoters.

Optimal curing

The process is designed to deliver an optimally cured material with no residues of reactive substances within the mass. The presence of even minimal 'free' reactive elements in a composite material after the curing process indicates that reticulation is incomplete and that optimal physical and mechanical properties have not been achieved.

Failure to allow all necessary chemical reactions to be fully completed, and leaving reactive residues within the mass, can also have potential environmental impacts in the long term in terms of emissions. The use of the manufacturer's exclusive bonding agent and its finely controlled curing process has been proven to reduce by a hundredfold the level of VOCs present in the final material. The engineered stone produced is virtually inert and the most eco-friendly in its product category.



The SureClad[®] Engineered Stone Collection



VAL39

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



VAL40

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



VAL41

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



VAL42

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)

Engineered stone is available in honed 120, honed 200 and sand textured finishes.

STD: Standard thickness 20mm (nominal), 30mm available to special order. Minimum quantities apply.

SAMPLES HOTLINE: Whilst every effort has been made to illustrate the appearance of these engineered stone panel options as accurately as possible, the printing process can only produce an approximation of the finished effect. Please call our Hotline on **0800 783 0395** for actual samples.



VAL43

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



VAL44

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



VAL47

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



VAL50

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)

Engineered stone is available in honed 120, honed 200 and sand textured finishes.

STD: Standard thickness 20mm (nominal), 30mm available to special order. Minimum quantities apply.

SAMPLES HOTLINE: Whilst every effort has been made to illustrate the appearance of these engineered stone panel options as accurately as possible, the printing process can only produce an approximation of the finished effect. Please call our Hotline on **0800 783 0395** for actual samples.

Engineered Stone Collection



VAL53

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



VAL72

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



VAL82

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



VAL83

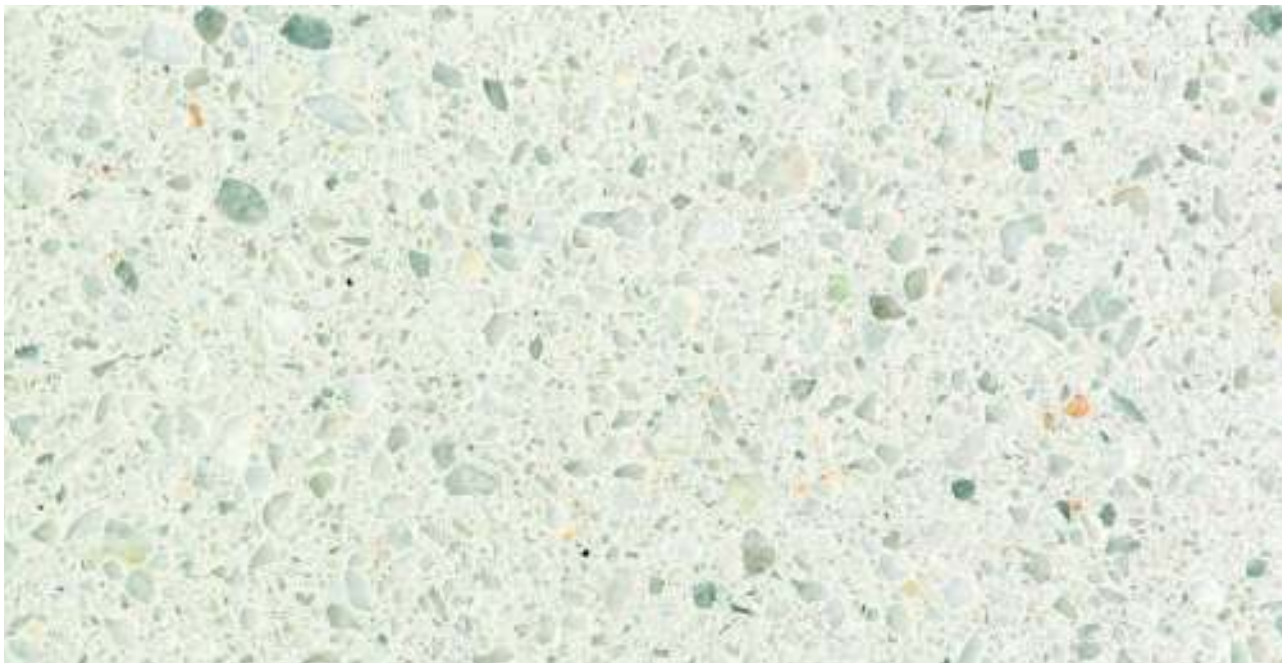
Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)

Engineered stone is available in honed 120, honed 200 and sand textured finishes.

STD: Standard thickness 20mm (nominal), 30mm available to special order. Minimum quantities apply.

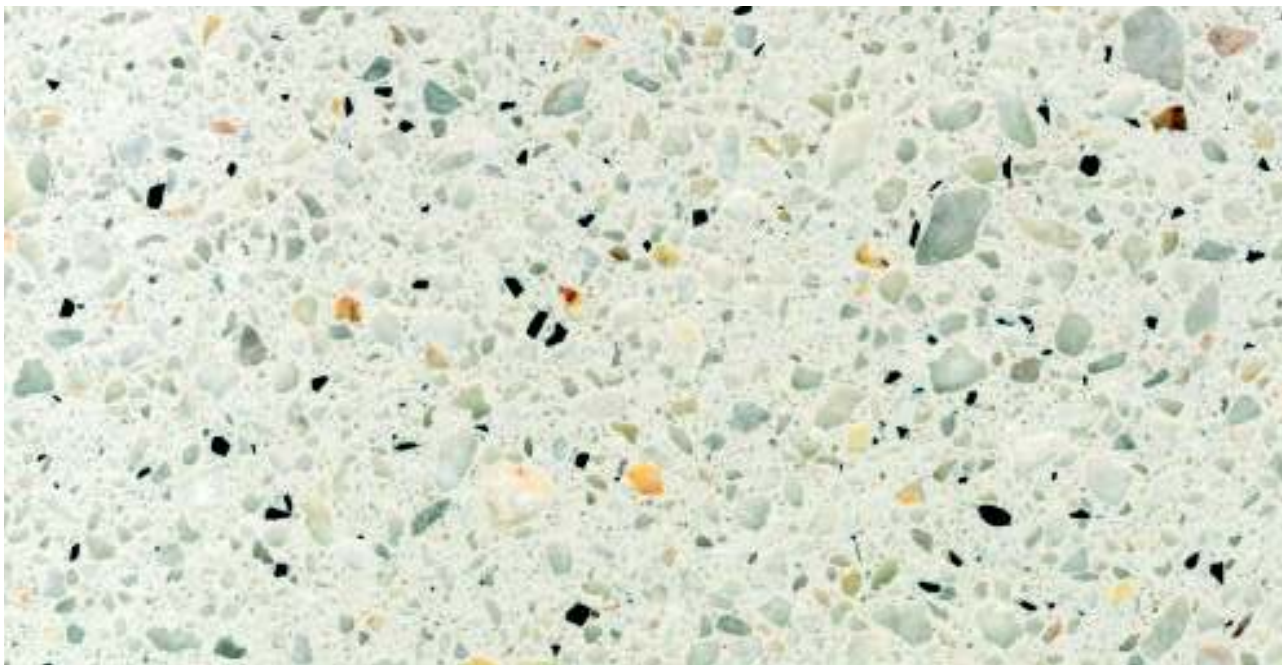
SAMPLES HOTLINE: Whilst every effort has been made to illustrate the appearance of these engineered stone panel options as accurately as possible, the printing process can only produce an approximation of the finished effect. Please call our Hotline on **0800 783 0395** for actual samples.

Engineered Stone Collection



VAL84

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



VAL85

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



VAL86

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



VAL87

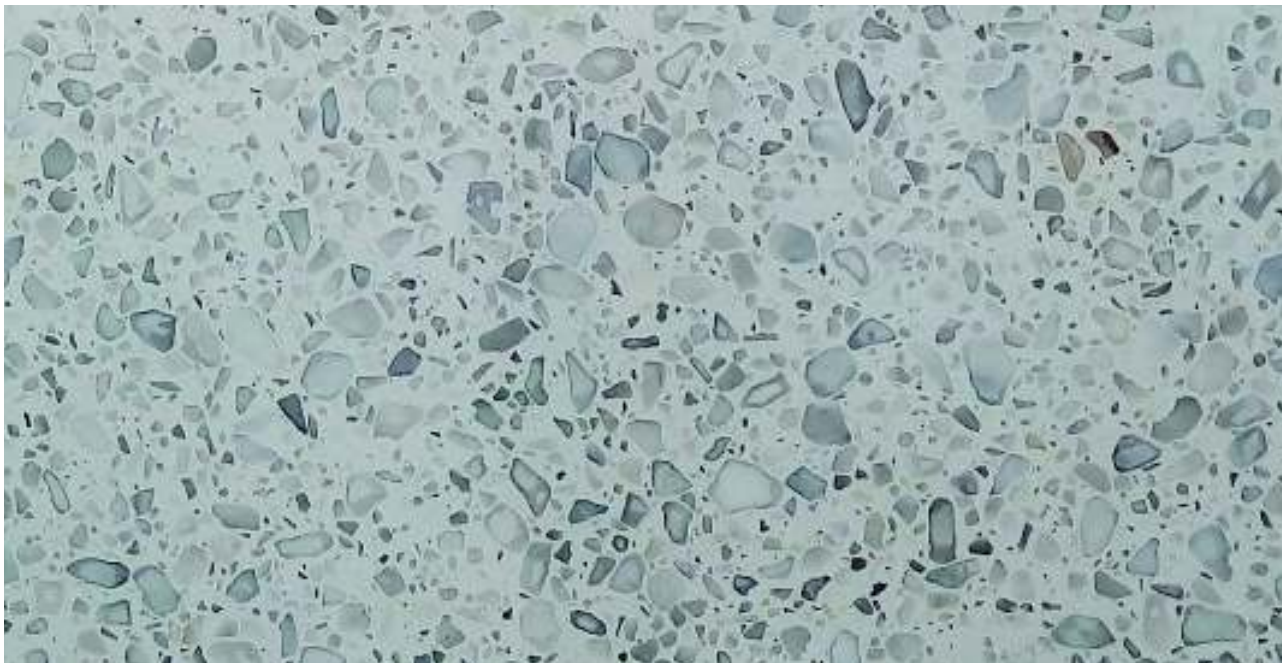
Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)

Engineered stone is available in honed 120, honed 200 and sand textured finishes.

STD: Standard thickness 20mm (nominal), 30mm available to special order. Minimum quantities apply.

SAMPLES HOTLINE: Whilst every effort has been made to illustrate the appearance of these engineered stone panel options as accurately as possible, the printing process can only produce an approximation of the finished effect. Please call our Hotline on **0800 783 0395** for actual samples.

Engineered Stone Collection



VAL88

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)



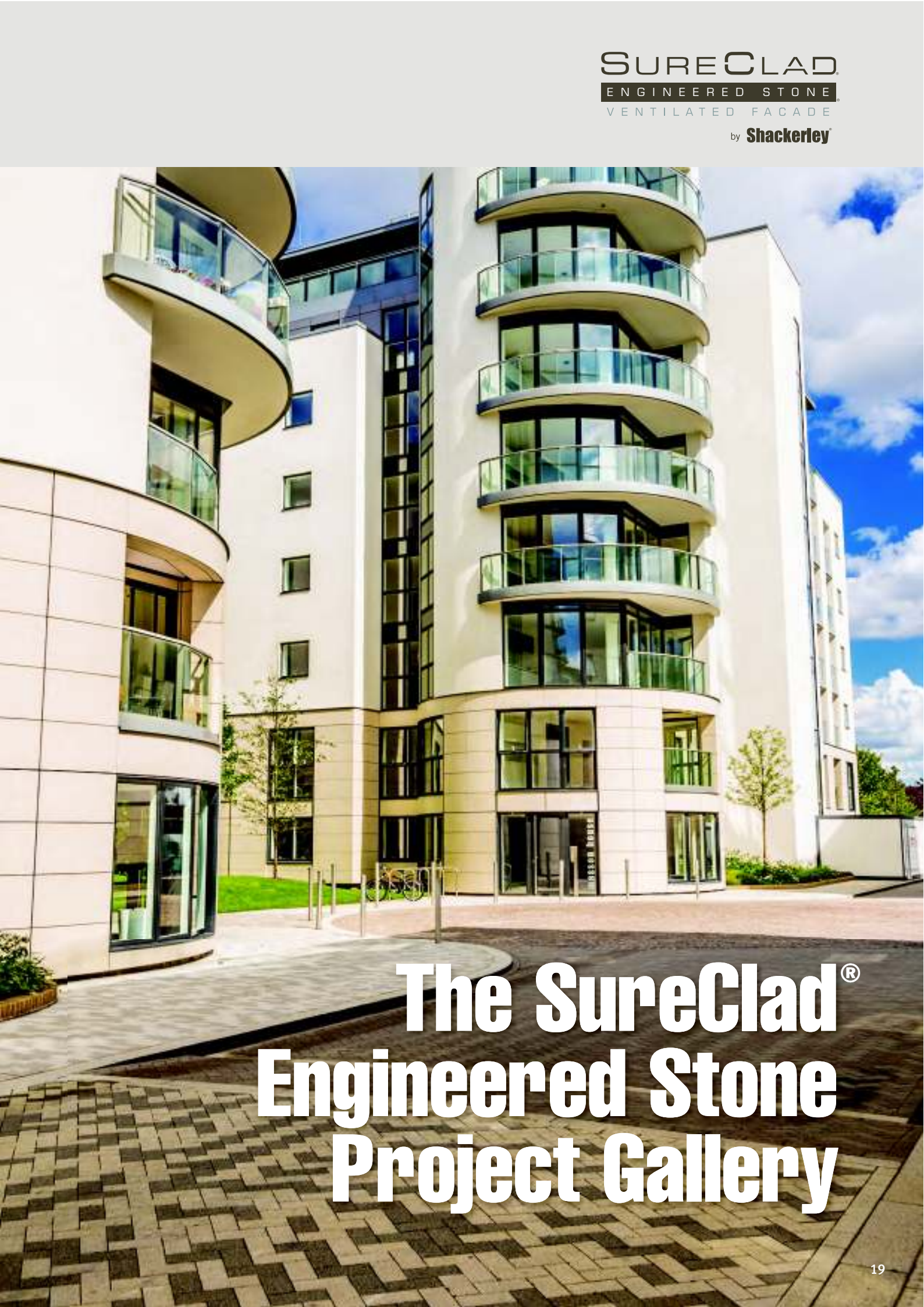
VAL89

Available in honed 120, honed 200 and medium or heavy sand textured finishes (Available in 20mm thickness)

Engineered stone is available in honed 120, honed 200 and sand textured finishes.

STD: Standard thickness 20mm (nominal), 30mm available to special order. Minimum quantities apply.

SAMPLES HOTLINE: Whilst every effort has been made to illustrate the appearance of these engineered stone panel options as accurately as possible, the printing process can only produce an approximation of the finished effect. Please call our Hotline on **0800 783 0395** for actual samples.



The SureClad[®] Engineered Stone Project Gallery

Axtell House, West End, London





Project: Axtell House
Location: Warwick Street, West End, London
Specified by: Darling Associates, London
Material: 250m² of 30mm and 20mm thick Valpolicella VAL39 (Sandblasted) engineered stone panels in multiple formats to a maximum size of 1732 x 925mm.



Axtell House, West End, London





Market House, Newcastle City Centre





Project: Market House Student Accommodation
Location: Market Street, Newcastle Upon Tyne
Architects: Fletcher Joseph Associates, Edinburgh
Specified by: Delta Group Services, Ellesmere Port
Material: 3000m² of 3050 x 1240 x 20mm Valpolicella VAL84 (Honed) and Valpolicella VAL56 (Honed) engineered stone, and 50m² of 1500 x 748mm Namib NAM06 ceramic granite panels



Market House, Newcastle City Centre





Kew Bridge West, Brentford, London



Project: Kew Bridge West
Location: Brentford, London
Project architects: Stockwool, London
Specified by: St. James Group Ltd. (London North)
Material: 2400m² of Valpolicella VAL 47 (Honed) engineered stone panels cut to site-specific sizes from 3000 x 1200mm slabs. Curved panels, cut to a radius, also supplied

“It was only when we came to value engineer the Kew Bridge West project that Shackerley’s system was brought to our attention. As a result of switching the engineered stone specification to SureClad®, we’ve undoubtedly benefitted from a more flexible and lighter façade solution than originally planned and from very substantial cost savings, whilst still achieving our architects’ original design intention. We’re delighted with the results.”

Brian Paterson
Construction Director, St James





Kew Bridge West, Brentford, London





2 Woodlands Way, Putney, London



Project: 2 Woodlands Way
Location: Putney, London
Specified by: The Cherwell Group, London
Material: 165m² of 1200 x 600mm Valpolicella VAL46 (Honed) panels





Appleton Tower, University of Edinburgh



Project: Appleton Tower
Location: University of Edinburgh
Specified by: LDN Architects, Edinburgh
Material: 2650m² of 1363 x 1200mm and 1080 x 2123mm
Valpolicella VAL42 (Honed) panels





Appleton Tower, University of Edinburgh





St. Mungo's, Glasgow City Centre



Project: St. Mungo's Student Accommodation
Location: St. Mungo's Avenue, Glasgow
Specified by: Fletcher Joseph Associates, Edinburgh
Material: 1900m² of 3050 x 1240 x 20mm Valpolicella VAL41 (Honed) and Valpolicella VAL 41 (Gritblasted) engineered stone panels





St. Mungo's, Glasgow City Centre





Glendower House, Cardiff



Project: Glendower House
Location: Saint Andrew's Lane, Cardiff
Specified by: John Wotton Architects, Cardiff
Material: 384m² of 3050 x 1240mm Valpolicella VAL41 (Honed) panels

“To use natural stone would have been cost-prohibitive not only because of the cost of installing the material itself, but because of the structure that would have been required to support the additional weight.

Shackerley's engineered stone and their SureClad® façade system gave us the best of both worlds, delivering the appearance of natural stone cladding but with panels of a much slimmer profile, because the material, which is an 'engineered' product, has none of the inherent fissures and imperfections associated with quarried stones.

It provided us with a robust, lightweight and practical solution that was fast and easy to install and will keep its high quality appearance over time.”

John Wotton
John Wotton Architects





Glendower House, Cardiff





SureClad[®] Systems

Introduction to SureClad®

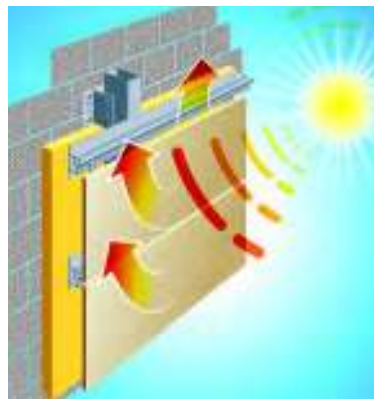
Ventilated cladding benefits

The environmental benefits of ventilated façade systems are well understood. Designed to provide buildings with highly effective protection from the elements, they also provide the opportunity to introduce valuable thermal and acoustic insulation in the air cavity between the building shell and the façade, thereby greatly contributing towards energy efficiency and the attainment of a more comfortable interior environment. The remaining cavity helps to eliminate any thermal and acoustic bridging and the air flow behind the façade also minimises condensation risks and allows the building to 'breathe', serving to maintain a healthy indoor climate.



Ventilation

Continuous airflow between the outer façade and the building exterior allows the building to 'breathe' and prevents rain penetration.



Insulation

Thermal and acoustic benefits are provided by an external layer of insulating material behind the façade. Energy consumption is reduced.



Protection

Ventilated façade cladding protects the building from the elements - from driving rain to extremes of temperature.

New build and refurb applications

Ventilated façades have long been a mainstream exterior envelope solution for new buildings. With the ever increasing emphasis on sustainability, more and more specifiers are recognising the benefits of retro-fitting this type of cladding on existing buildings which may have deteriorated in terms of image and appearance, and which do not meet the performance standards demanded of new build.

As long as a building is structurally sound and of an appropriate design, one of the most logical, cost effective and sustainable ways to overcome its failings is by overcladding with a ventilated façade system.

This approach not only allows a building's environmental performance to be enhanced, it can extend its life expectancy by several decades and also allow for dramatic aesthetic improvements to be made, matching any new build project in terms of style and finish.



SureClad® façade systems

Shackerley developed its SureClad® façade system range in order to enable specifiers to use a wide range of traditional and contemporary large format construction materials as part of a sleek and modern ventilated cladding installation, with no visible fixings to detract from the appearance of the façade.



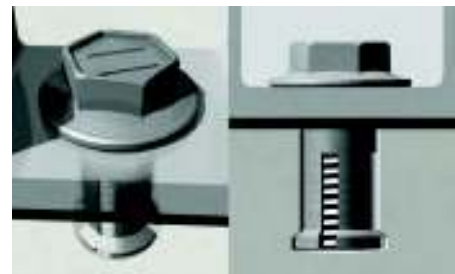
Offsite prefabrication

Every SureClad® system is supplied to site as a complete package, fully prefabricated and ready to install. Offsite prefabrication all takes place in Shackerley's ISO9001 quality accredited production facilities, helping to deliver the highest quality installation on site and significantly reducing the time and cost involved to complete the project.



Undercut anchorage

Whichever Shackerley cladding material is specified, stainless steel undercut anchors are used to attach fixings to the rear of the façade panels so that they can be mounted in a strong, safe, secure and stress free manner onto a SureClad® Access or Hang On carrier system. All precision undercut drilling operations are carried out in-house as part of the prefabrication process.



Aluminium components

Engineered in high grade aluminium alloy, selected for its sustainability, formability, corrosion resistance and exceptional strength to weight ratio, all SureClad® system component parts and profiles are designed for efficient installation and long service. All primary fixing brackets and horizontal rails are supplied pre-punched with fixed and flex mounting points to accommodate thermal expansion.



SureClad® Hang On System

Suitability for use with engineered stone

The dimensions, thickness and overall weight of the specified façade panel will normally determine whether the installation should be completed using a SureClad® Hang On or Access system. The SureClad® Hang On system which provides two or more horizontal rails to support each course of façade panels will normally be installed in conjunction with vertical 'T' or box profile vertical rails when the largest and heaviest façade materials, including large format engineered stone, are specified.

Fixing brackets

SureClad® Hang On system façade panels are supplied with four or more aluminium brackets already fitted, secured with stainless steel undercut anchors. The brackets at the bottom of each panel are fixed and those at the top are adjustable. The panels are offered vertically flat to the substructure with all brackets engaging simultaneously with the horizontal rails. Adjusting bolts in top two brackets are used to make small adjustments to panel position until level.

Support brackets

A wide range of primary support brackets is available to allow the air space behind the façade panels to be varied to suit the building design and to accommodate thermal and acoustic insulation of the required thickness. Their thermal isolation pads minimise heat loss through thermal bridging.

SureClad® Floor to Floor system

On a modern construction project there may not be a solid masonry wall or a sufficiently robust secondary framing system available across all parts of the elevation to offer adequate anchorage and support for the ventilated façade substructure.

For this type of project Shackerley can offer an engineered solution which will achieve a 'floor to floor spanning' SureClad® Hang On System for mounting façade panels. Key to the success of the system is the extensive range of specially produced primary support brackets and vertical support profiles available to Shackerley's engineers when designing a scheme. Detailing, such as that required to accommodate floor slab deflection and general structural movement, can be accommodated within their site-specific solution.



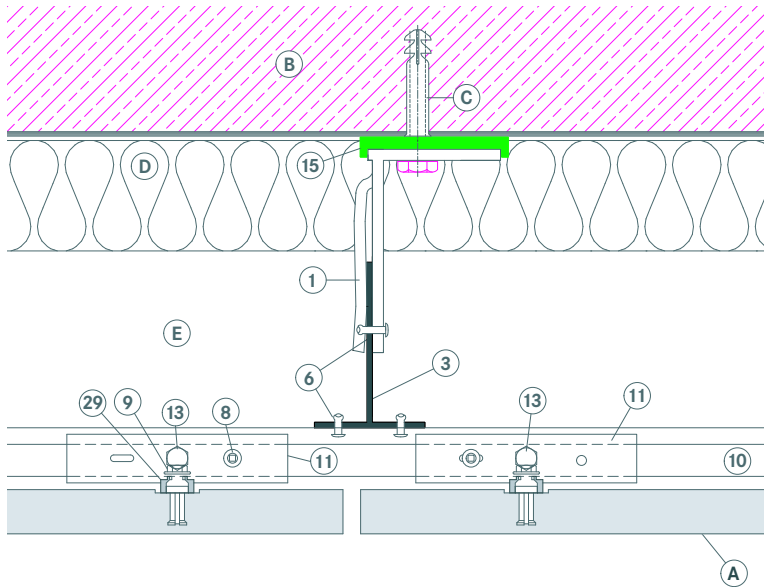


Planning & Design Details

SureClad® Hang On System

Planning & design details

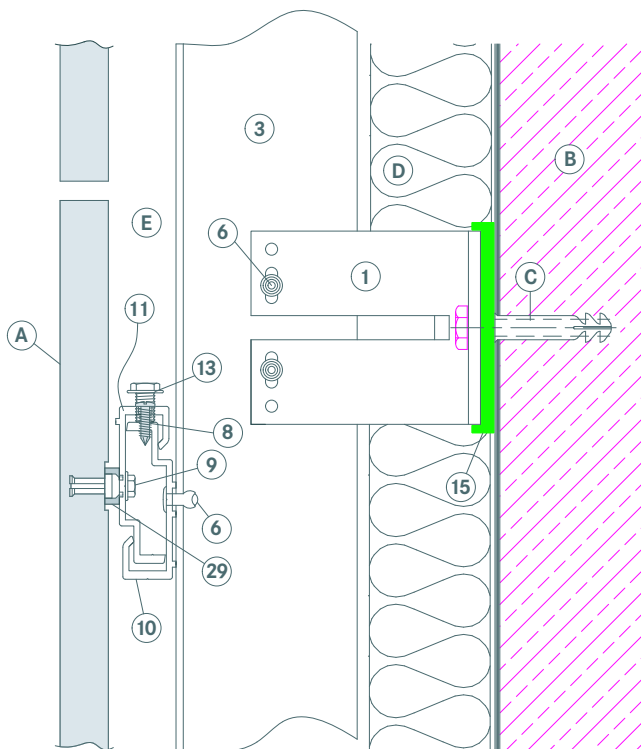
20mm SureClad® Hang On plan view



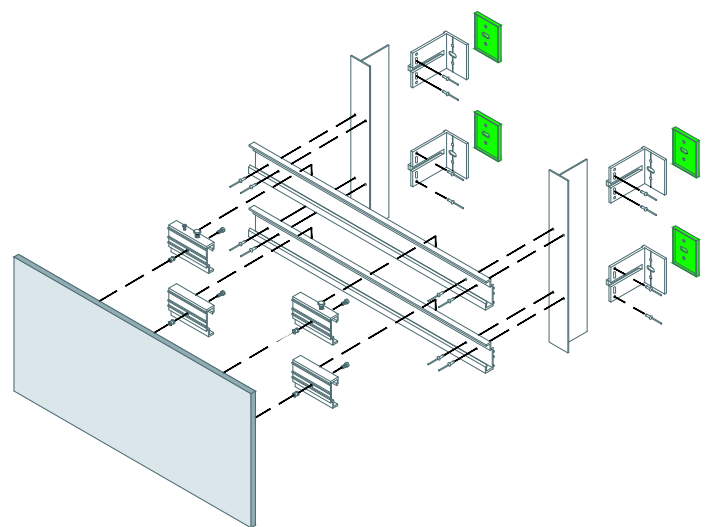
Index of components

- A = Engineered stone façade panel
- B = Building structure
- C = Anchor fixing to suit background
- D = Insulation to building specification
- E = Air cavity
- 1 = 'N' series primary support bracket
- 3 = 'RS-F' vertical 'T' profile
- 6 = 'RS-RV4' rivet fixing
- 8 = 'RS-SSC3A' self tap fixing
- 9 = Undercut anchor
- 10 = 'RS-HG' horizontal 'HG' rail
- 11 = 'RA-HGBA' adjustable top hanger
- 13 = Adj. hanger adjusting bolt
- 15 = 'IPAD1' isolator pad
- 29 = SHG spacer/collet

20mm SureClad® Hang On vertical 'T'



20mm SureClad® Hang On typical exploded diagram





Quality Controlled Prefabrication

In-house prefabrication & manufacturing

Shackerley provides total façade solutions for specifiers and installers cladding the exterior envelope with a wide range of traditional and contemporary façade materials. Since entering the external façade market, the company has invested in specialised machinery and developed the technical expertise required to offer a comprehensive range of in-house fabrication and assembly services that can be tailored to suit many different cladding materials.

All manufacturing and assembly operations are carried out in a quality controlled environment in ISO 9001:2001 accredited production facilities.

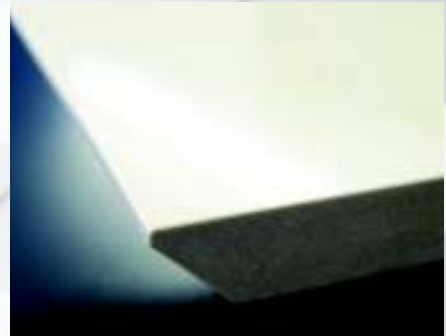
Specialist heavy duty cutting

On-site cutting facilities include heavy duty, computer controlled, multi-directional bridge saws, twin blade saws and special purpose cutting equipment, designed and built in-house. This machinery will precision cut large slabs of engineered stone, ceramic granite, quarried granites, marbles and limestone, terracotta and a wide range of other cladding materials into bespoke sizes and shapes to create façade panels of any size, up to a maximum of 3.6m long by 2m wide and 160mm thick. The ability to respond quickly to site measurements and carry out bespoke cuts in-house can eliminate costly delays for the cladding installation team.



Finishing

To suit the façade design, panels may be specified with profiled edges. Using in-house finishing machines, Shackerley is able to supply panels with mitred and rounded profiles, and flat polished edges if required.



In-house prefabrication & manufacturing

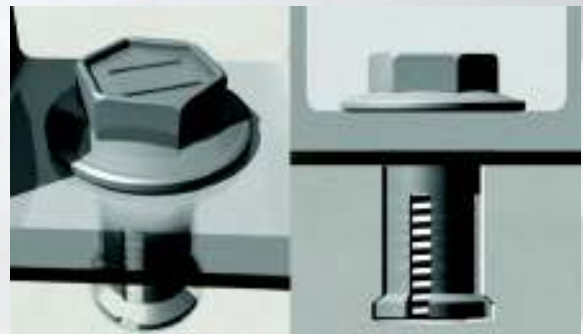
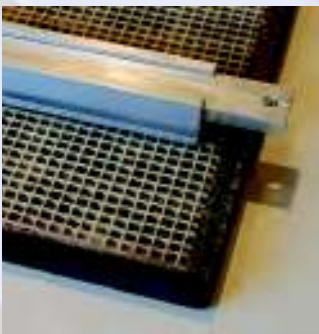
Precision drilling

When façade panels have been cut to the correct dimensions and meshed (if required) they are ready to have fixings mechanically attached to the back. The first stage is to drill precisely measured undercut recesses at the corners of each panel (and mid-span if required), to accept the sturdy stainless steel anchors that will secure the fixings in place in a safe, stress-free manner. All drilling is carried out using heavy duty undercut diamond-tipped drilling machines, designed and developed by Shackerley. These have up to six drilling heads, all of which can be programmed individually to allow undercut anchorage recesses to be drilled simultaneously at any point on the panel.



Straps and brackets

All SureClad® façade panels are supplied fully prefabricated. A team of operatives secures pre-formed 'straps' (Access system) or brackets (Hang On system) to the back of each panel with stainless steel undercut anchors.



Quality controls

Strict process controls are followed and orders are carefully monitored as they pass through each stage. A specially designed bar-coding system ensures that all work in progress is tracked meticulously. Finished goods are then carefully palletised in such a way that the opportunity for damage in transit is minimised and contractors can continue to move their deliveries around on site if necessary.



Technical expertise

Shackerley is able to offer clients a comprehensive advisory service and will work closely with architects, engineers and other members of the project team to ensure the correct specification of materials and installation system.

Bespoke manufacturing service

Skilled production team

In addition to cutting, undercut drilling and prefabricating SureClad® facade panels from large format engineered stone slabs, Shackerley's highly skilled production team is also able to use many additional processes and craft skills traditionally associated with stone masonry - polishing, grinding, shaping, honing - to create bespoke elements and finely detailed components to meet the precise requirements of every cladding project.

Soffits, reveals and corners

Typically items such as soffits, reveals and corner details are produced and supplied in one-piece, installation-ready units. Prefabrication off-site in Shackerley's ISO 9001 accredited production facilities in Lancashire assures the client of high standards of factory finish and can substantially reduce on-site programming.



Corner detailing options

Where pre-assembled one-piece corner units are required, Shackerley is able to offer a range of aesthetic options to suit the design scheme. Bracketed units can also be bonded if required.



'BIRDS BEAK' CORNER



SQUARE OVERLAP



INTERNAL BRACKET



MITRED AND BONDED

Bespoke manufacturing service

Exploiting the versatility of engineered stone

Because Shackerley's Engineered Stone façade panels are sourced direct from the processors and are cut to order individually, they can be supplied in multiple thicknesses to suit the needs of a particular project. They can also be supplied with different finishes.

This flexibility may be exploited where specifiers are looking to achieve seamless visual continuity from the external elevations through to interior spaces. Slabs of the same batch of engineered stone can be supplied for use as interior flooring, copings, steps, countertops and wall cladding panels, in the most appropriate format and finish for each application.

As all Shackerley's Engineered Stone is precision cut from large blocks, curved panels cut to a radius can also be supplied. These panels can be installed in conjunction with a SureClad® system as part of the ventilated façade.



Classic Detail

For specifiers looking to offer their clients an alternative to the standard sleek and uninterrupted façade, the Classic Detail option is offered with Shackerley's SureClad® Hang On system. Engineered stone panels are prefabricated in such a way that the resulting ventilated façade incorporates distinctive recessed horizontal joints. This innovative development delivers an aesthetic style which is reminiscent of the elegantly dressed stone exteriors of many historic and prestigious municipal buildings found in major towns and cities across the UK and beyond.

The design feature can be incorporated into engineered stone façades installed using panels of any size, and the recessed joints can measure up to 50mm. To emphasise the effect of the recesses further still, specifiers can employ façade and infill panels of contrasting colourways.



Classic Corner Detail

Corner Detail is another feature available to specifiers wishing to introduce additional visual interest to their façades. Used as a standalone feature or in conjunction with Classic Detail, this facility allows specially prefabricated engineered stone quoin panels of different thicknesses, textures and colours to be used to create distinctive contrasts where two building elevations meet.

Corner panels can be supplied with chamfered edges and they can also be bonded.



Bespoke manufacturing service

Etching, engraving and shaping

Engineered stone can be worked in many different ways. Offering a range of optional services, such as the use of CNC and high pressure cutting machinery, Shackerley can supply etched, engraved, cut and shaped panels to order, creating bespoke design features that will enhance and complement the SureClad® façades.



Additional detailing

Shackerley is able to undertake more unusual detailing to complement the design of the façade, such as the production of engineered stone louvres to ensure visual continuity across an elevation.



Bespoke manufacturing service

Apertures

In addition to complex and eye-catching lettering, graphics and fluting details, precision cut apertures can be created within panels to enable separate signage and brise soleil to be securely mounted.





Technical Data & Testing

Technical data and testing

SureClad® Engineered Stone

Testing for the UK market and beyond

Shackerley's SureClad® Engineered Stone façade system complies with all relevant British and European standards, CWCT standards for systemised building envelopes and NHBC technical requirements, and has been subjected to extensive in-house and UKAS accredited testing at the Vinci Technology centre. A summary of the resulting test data may be found below.

Shackerley's Engineered Stone panels are manufactured in accordance with BS EN 15286 - 2013 and are fabricated into ready to install façade panels in Shackerley's UK based ISO 9001 Accredited Factory.

Classification of test results	Valpolicella engineered stone 15-20mm thick panels, typical values
Wind Resistance - Serviceability	± 2400 Pascals
Wind Resistance - Safety	± 3600 Pascals
Water-tightness - Dynamic	600 Pascals
Soft-Body Impact CWCT TN75/76	Serviceability 120 Nm no damage Class 1 Safety Impact 350 Nm and 500 Nm low risk
Hard-Body Impact CWCT TN75/76	Serviceability Class 1 Safety Impact 3 Nm low risk
	The SureClad® backing support framework remained undamaged throughout the test

CHARACTERISTICS	STANDARD	UNIT OF MEASUREMENT	AVERAGE SHACKERLEY VALUE
 DENSITY	BS-EN 14617/1	Kg/dm ³	2.40 - 2.55
 WATER ABSORPTION	BS-EN 14617/1	%w/w	> 0.15
 FLEXURAL STRENGTH (BENDING)	BS-EN 14617/2	MPa	> 20
 COMPRESSIVE STRENGTH	BS-EN 14617/15	MPa	> 100
 ABRASION RESISTANCE	BS-EN 14617/4	mm ³	275 - 520
 COEFFICIENT OF LINEAR THERMAL EXPANSION	BS-EN 14617/11	°C ⁻¹	16 - 23 x 10 ⁻⁶
 DIMENSIONAL STABILITY	BS-EN 14617/12	Class	A
 FREEZE AND THAW RESISTANCE	BS-EN 14617/5	–	Resistant
 REACTION TO FIRE	BS-EN 13501/1	–	A2- s1, d0



Dynamic water tightness testing at Vinci Technology Centre



Soft body impact testing at Vinci Technology Centre





Shackerley®

Shackerley (Holdings) Group Limited

139 Wigan Road, Euxton, Chorley, Lancashire PR7 6JH

Telephone

+44 (0)1257 273114

Fax +44 (0)1257 262386

Email info@shackerley.com

www.shackerley.com



Shackerley® and SureClad® are both registered trademarks of the Shackerley (Holdings) Group Limited