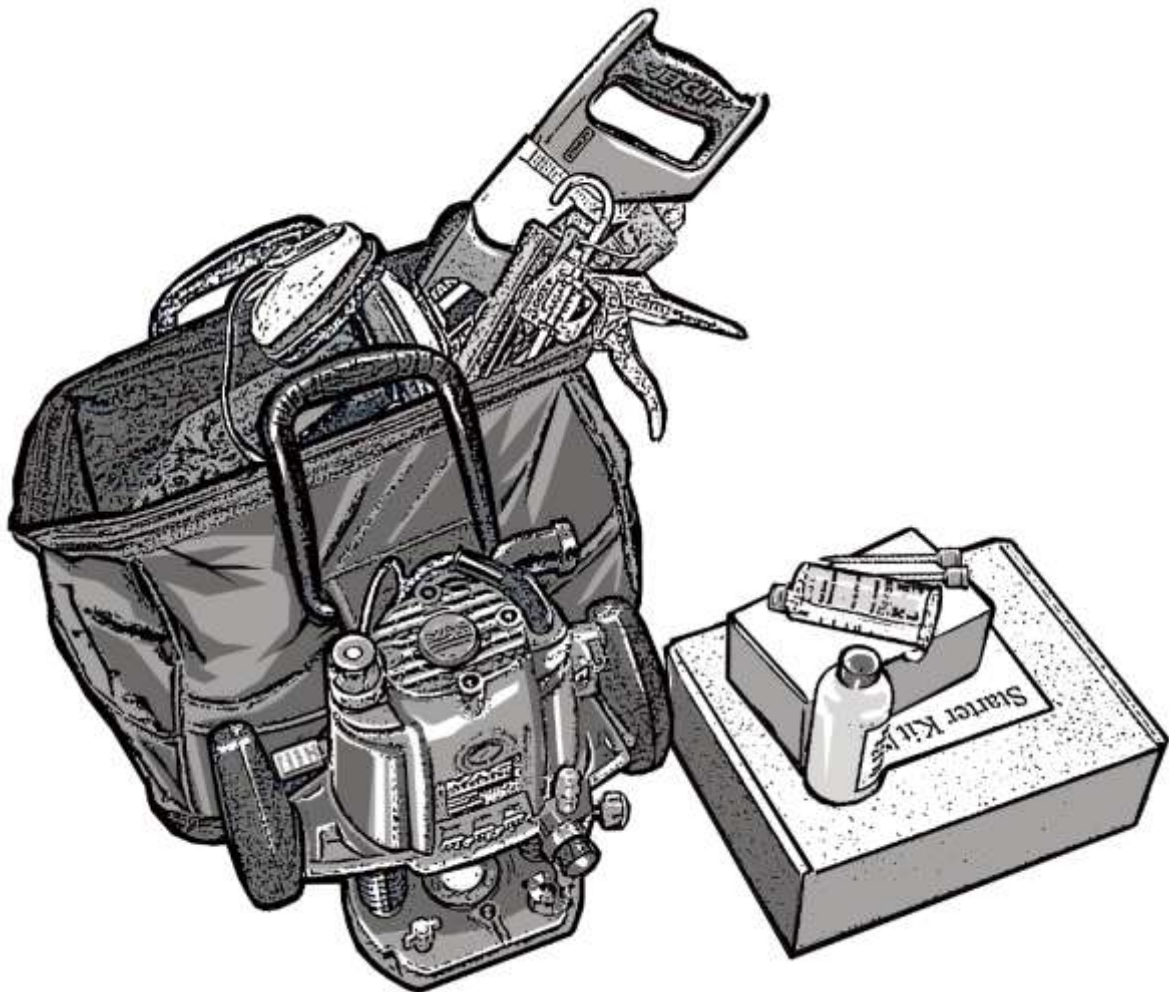




Kitchen

Installation & Fabrication Manual



May-10

Introduction

Minerelle™ is a homogeneous, mineral-based, solid surfacing material containing natural mineral fillers and high grade engineered resins. Uniquely, it is directly coated onto an environmentally friendly core board and balanced with a non-porous resin and recycled filler mixture.

Minerelle provides a perfectly smooth and tactile surface that allows inconspicuous jointing and edging.

Seams are fused together to provide a flush and moisture resistant bond across the surfaces. Since it is non-porous, every day stains can be removed with just soap and water.

Minerelle is a unique UK produced solid composite work surface which can be fitted and installed in almost the same format as a standard laminate worktop. All factory edged tops ensure full resistance to moisture and water ingress. Minerelle is available in 58mm and 41mm thick kitchen worktops, 31mm thick bathrooms worktops and 12mm and 6mm thick sheets for panelling applications.

Throughout the text of this manual, it is our intention to provide you with information that will assist you in fabricating and fitting Minerelle. Specifically, the installation procedure as described refers to the Minerelle worktop as the example product being installed. You can also view a short 16 minute video presentation on our website www.minerelle.com on the training page.

A condensed pictorial version of the installation procedure is supplied with every work surface but we recommend that this complete version of the instructions should be read carefully before commencing work.

Free of charge “Training Clinics” are available! These can be arranged by contacting the distributor or local sales person. This manual is updated on a regular basis, however, if you have retained a copy of the manual for some time, we would advise that you refer to our web site for the most up-to-date version. Should you have any queries on the installation of Minerelle work surfaces or panels, please call your distributor / supplier for advice before installation.

Handling, storage and on-site checks

Minerelle worktops should be carried individually and vertically to eliminate any possibility of surface cracks. Always unpack your Minerelle worktops, check for signs of damage caused in transit and report any problems found before proceeding further with the installation. Do not rest components on abrasive or gritty surfaces that may cause scratching.

Product pack weight

length x width x thickness = weight

2050 x 650 x 40mm = 36kg
2050 x 900 x 40mm = 49kg
4100 x 650 x 60mm = 74kg
4100 x 900 x 40mm = 98kg
4100 x 650 x 40mm = 71kg
4100 x 600 x 6mm = 23kg
4100 x 50 x 12mm = 4kg



Health and safety

There are no known hazards associated with Minerelle solid composite surfacing. Normal, good work shop operating practices should be followed as with any other panel product. Always wear eye protection. When sanding Minerelle always use a dust mask as the material is classified as a nuisance dust. Good extraction on the sander and router will remove dust and shavings. Consideration should be given to the weight of the product when off-loading and installing. Material Safety Data Sheets are available and can be obtained from your distributor or by downloading a PDF file from our web site (www.minerelle.com).

Visual colour check

The vast majority of Minerelle colours are less prone to colour matching problems than many other surface products. Components that are to be joined together on the same job should be checked before cutting and installation for colour match under good lighting conditions. If the material appears to be unsatisfactory contact your distributor immediately. It is normal to expect some degree of variation in shade between different thicknesses of products due to light transmission. This is not normally noticeable on the majority of colours.



IMPORTANT

- To check good colour match between two components it is advisable to lightly sand both pieces to ensure that the texture is not causing a visual colour difference and then wipe with a wet, clean cloth.

NOTE; Your distributor will replace any work surfaces that are defective due to manufacture but will not provide compensation for poor installation or any subsequent labour charges incurred in replacement.

We will not accept any claims due to colour variation after cutting or installation.

Site condition and security

The installation site must be dry and secure i.e. window glass in place. Temperature at location of installation is important, as the rate of cure of the jointing adhesive is dependent on the temperature of the worktop, adhesive and general surroundings. The colder it is, the longer the cure time. Temperature should be at least 17°C to ensure a successful cure process and no greater than 23°C as the adhesive would cure too rapidly to use.

- Store Minerelle worktops indoors in a well ventilated dry area. Components must be stored in racks, horizontally with adequate support along their full length.
- Before fabrication or installation, all Minerelle worktop products should be brought to room temperature of 17°C.

NOTE: Worktop edging, Upstands and Splashbacks, will become more brittle in cold temperatures so Please take extra precautions and handle with care. Adhesives destined for immediate use must be brought to room temperature beforehand. **Do not** put on heaters, in ovens or use direct heat to do this as it will affect the stability of the open working time.

Site preparation and checks

- Ensure that all carcass units are installed, attached to the wall, plumbed and levelled in both directions.
- Check all service pipes, power cables and sockets are installed.
- Check that appliances fit their allocated positions and ensure that wall-hung worktop support battens are in place, particularly between widely spaced base cabinets.
- Check the installation instructions for all appliances e.g. dishwashers, ovens, etc. that are to be sited underneath worktops and ensure that you have the correct deflector plates (if supplied) and/or an aluminium heat reflective foil sheet for the underside of the worktop (available as an option in starter kit from your distributor).
- All jointed areas should be well supported so careful consideration in their location is recommended.
- Before joints are bonded with the seaming adhesive they should be dry fitted to make sure that they are tight, straight and accurate.
- Determine that all cut-outs have been machined to the correct dimensions and located correctly. (If cut-outs are left for onsite machining, check those cooker hobs, sinks and anything else that determines size of cut-out is on site).
- Check you have enough adhesive to complete the job (1 cartridge for every joint of 650mm or 900mm deep in 40mm thickness) and that it is the correct colour to match tops.
- Check number of jointing bolt sets, biscuits and any additional edging strips required.

NOTE: We recommend that the maximum span for a worktop between cabinets is 1200mm. However, the worktop should still have a wall-hung support batten at the back edge.

Tooling and equipment

The following list indicates the tools involved in the installation of Minerelle. The only specialised tooling needed that is different from standard laminate worktop fitting is the random orbital sander and vacuum extractor (essential for efficient sanding and minimal dust generation in the environment).

- Router and cutters - 12mm diameter X 50mm TCT Router Cutter
- 3mm radius Profiling cutter + bearing (Titman ROCB 3)
- Straight edge guide for HD router
- Sander and sand paper – with extraction
- Imanol (isopropanol) and clean, bleached or natural cloths
- Worktop jig (should a mitred joint be specified)
- Jigsaw (sharp blades)
- Drill and 16mm drill bit for 8mm minimum internal radius on all cut-outs
- Dust masks
- Safety glasses
- Masking tape
- 'G' or 'A' or slip cramps
- Jointing bolts (3 per 650mm joint)
- Jointing biscuits
- Heat reflective tape (hob cut-outs)
- Heat reflective foil / deflector plate (dishwashers)
- Silicone sealant (all cut-outs and exposed chipboard core)
- Seaming adhesive and applicator gun

Routers

A router is the most suitable tool for machining Minerelle. When choosing a router always make sure the machine is sturdy and powerful enough to do the job. For butt and scribe jointing and edge dressing a minimum rating of 1200 watts is recommended, for sink and hob cut-outs a higher rating of 1600-2100 watts would be required. Recommended minimum rotational speed of cutter is 18,000 rpm. Router cutters should be of high quality tungsten carbide, double fluted, with a 12mm shank to reduce chatter. 6mm grooving saws should be a minimum of 4-wing with a strong arbour support having a 12mm shank (recommend Titman HD650 or adjustable type ADG5-9 with Arbor HDGA).

Sanders

Random orbital sanders can be either electric or air-driven but must have minimum orbital speed of 10,000 rpm with a 3/32" orbit, preferably with a 150mm diameter pad. Recommended sand paper grits are: 180 & 240 grit - for removing adhesive bead, 320 grit – for finishing and Scotch-Brite® 7448 (grey) - for surface polishing

Saws /Cutting

The most practical type of saw to use in customising Minerelle is a sliding table saw, as the product has only to be crosscut to a new length. A fine chip free cut is required to minimise edge dressing. To achieve this a triple chip-tungsten carbide tipped (TCT) saw blade is recommended. (e.g. 230mm/300mm diameter with 60/72 teeth). When using table saws always place Minerelle "face-up" on the table. with approximately 25mm of saw blade above the panel surface, always cut slowly through the panel. A hand held circular saw, guided along a straight edge clamped to Minerelle, can be used for workshop or on-site sizing.

A jigsaw can be used for "rough" cutting Minerelle worktops in the same way as standard laminate tops i.e. for the cutting of sink and hob cut-outs as well as other cutting operations, however all edges should be finished with a router and all cut edges must be profiled with a radius edge.

To reduce the amount of marking on the surface from the saw/router plate, cover the area that is to be cut with masking tape.

Due to the unique composition of Minerelle, cutter blade life expectancy will be reduced. It is very important to make sure that a sharp blade is used to reduce the risk of chipping and fracturing the surface.

NOTE: Saws only produce a rough sizing cut. The edge and final finished sizing should be made by using a HD router.

Equipment availability

This document provides details of both products and suppliers of the materials needed to fabricate and install the Minerelle product. Other materials may be used but at this time the products listed below have been tried and tested.

1. Sanding tools - To finish Minerelle you will require a random orbital sander with a 150mm diameter pad. It is necessary to use a sander with dust extraction facilities as this will increase the cutting efficiency of the abrasive discs and a better working environment. We would recommend Festool RO150E with extraction unit.
2. Sanding papers - 180 grit, 240 grit 320 grit. These can be obtained from your distributor as part of the Minerelle Starter Kit
3. Finishing system - After sanding use a Grey Scotch-Brite® pad. These can be obtained from your distributor as part of the Minerelle Starter Kit.
4. Clamps - A Clamps are a simple solution to re-edging. These clamps can be purchased from your Minerelle distributors.
5. Imanol (cleaner) - Imanol is a distilled and pure alcohol degreaser & cleaner. This is needed to clean surface and edges before bonding and can also be used for the removal of spilt adhesive. Imanol can be obtained from your distributor as part of the Minerelle Starter Kit. **DO NOT USE A SUBSTITUTE.**
6. Heat reflective aluminium tape foil sheet - Heat dissipative tape is needed within the hob cut-out as a heat absorber and deflector. It protects the edge of the Minerelle worktop from excessive heat that can crack the surface of the worktop. It should also be used to protect the underside of the worktop at dishwashers and built under ovens. This can be obtained from your distributor as part of the Minerelle Starter Kit.
7. Cutters - To machine-off the re-edge you will require a 12mm flush trimming cutter 19 x 25mm Titman BGT90LK and a 3mm rad profiling cutter Titman ROCB 3.

Installation

Please remember that a key feature of Minerelle is the inconspicuous seams, so care needs to be taken in the location, preparation and fabrication of joints. Everything you need to install your Minerelle worktop is available from your distributor.

Contents of Starter Kit

- 1 bottle of Imanol cleaning solution
- 1 bottle of Minerelle Finishing Spray
- 1 roll of Heat Reflective aluminium tape (5 metres)
- 1 pack of abrasive discs – 180, 240 & 320 grit (5 of each)
- 1 pack of clean, bleached or natural cloths (2 large)
- 1 pack of Grey Scotch-Brite pads (3 pads)
- 1 bottle of finishing cream
- 1 Installation Manual
- 1 Heat deflective foil sheet for dishwasher is available “as an option”

In addition to the starter kit you will also need the correct, colour matched adhesive and applicator gun. Also available from your distributor.

Adhesive

- Always use the correct adhesive colour for each Minerelle design. The adhesive is a two-part system with the pigmented adhesive in one compartment and the hardener in the other
- Always use an applicator gun to apply the adhesive.
- Each cartridge will normally glue one standard 650mm or 900mm worktop joint.
- Do not cut off the end of the nozzle as this will change the mix ratio and affect the quality of bond.
- Before applying the adhesive you will need to squeeze out 1 full nozzle of adhesive to ensure a good mix in the nozzle of adhesive and hardener.
- Do not allow skin contact with the hardener – wash off immediately.

Normal shelf life is 12 months from fill date providing it is stored in cool place. It may be feasible to use adhesive up to 18 months from fill date, however this should only be done with approval of the Minerelle manufacturer.

Although 2 nozzles are already provided with your applicator gun, extra nozzles are available from your distributor.

Layout and joint placement

Consideration must now be given to the worktops and the location of the joints. All jointed areas should be well supported therefore careful consideration in their location is recommended and the following points must be adhered to:

- Joints must not extend across hob and sink cut-outs.
- Offset all joints by at least 100mm from all cut-outs
- Offset by a minimum of 100mm to one side of dishwasher space. Always use the heat deflector plate or tape provided with your dishwasher – if not available please obtain a heat deflective foil sheet from your distributor (option in installation starter kit)
- Check location of corner units e.g. carousel units, as cut-outs in the top panel will have to be made for access to allow insertion of draw bolts.



When all the Minerelle components are prepared to their final length, lay out the worktops to check the finished dimensions against the drawing/plan, with all internal corners and open-ends in sight.

Cut oversize by approximately 3mm then edge and dress to final length using a router and straight edge, or alternatively use the butt and scribe jig. It is advisable to dress the edge in 4 passes with the router depth gauge set at approximate 10 - 11mm intervals. This will avoid excessive stress and wear to the cutter.

The quality of a jigsaw cut is not adequate to produce a chip-free edge

Butt and scribe joints using biscuits

If a butt and scribe joint is specified, then your standard worktop butt and scribe jig with the appropriate guide ring and router cutter will be adequate. If the dog-bone recesses have not already been prepared, you should do that at this stage. Dog-bone recesses must be routed to a depth of 25mm to allow even pull on the surfaces, also cut four evenly spaced dados using a biscuit jointer and #20 biscuits for surface alignment and strength.

N.B. In normal laminate worktop applications the route-line for the jig is usually set back 25-30mm from the front edge to accommodate different edge details e.g. bull nose. With Minerelle worktops, 8mm is sufficient to clear the edge material thickness and radius.

Joint edge preparation and cleaning

- If using a new router cutter please ensure you wipe off the oil film, this can leave a residue and can contaminate the joint.
- Before attempting to joint with colour matched adhesives, prepare the joint faces by cleaning the edges and surrounding areas with a clean, bleached or natural cloth dampened with Imanol to remove dust and grease marks. You should repeat this process twice or more to ensure no residue remains.
- You must ensure all pencil marks are fully removed as the adhesive can absorb any residual graphite into the adhesive and leave a dark shadow in the finished joint. Remove by lightly sanding with 320 grit abrasive paper then clean the area thoroughly with Imanol cleaner.
- Do not use a coloured cloth as this can cause colour contamination and do not touch the edges after cleaning.

Use imanol cleaner only. do not use cellulose thinners for cleaning.

Spacer - Joints in Minerelle surfaces should be inconspicuous i.e. “not clearly visible or attracting attention”, however they should **not** be invisible. If there is no visible ‘glueline’, there isn’t enough adhesive which can result in joint failure. The desired ‘glue-line’ thickness at the joint is approximately 0.3mm or, as a guide, the thickness of a fingernail. This can be easily achieved by using spacers provided with each adhesive cartridge. REMEMBER: No visible ‘glue-line’ means not enough adhesive, which can result in joint failure. The adhesive acts as a glue *and* a sealant for the joint. An invisible ‘glue-line’ means there is not enough adhesive, which may result in joint failure. The spacers will ensure you cannot starve the joint from the adhesive due to the over-tightening of the jointing bolts.

Clamping sequence

- Dry fit to make sure that the joint looks tight and straight. Any obvious gaps that are seen on the dry fit could be seen after jointing.
 - Clean and de-grease the joint faces and surrounding areas. Use Imanol cleaner only.
 - Apply Minerelle seaming adhesive liberally, into the biscuit 'slots' and insert the biscuits (#20x4).
 - Fit a spacer around each biscuit.
 - Squeeze out one full nozzle of adhesive onto scrap paper to ensure that adhesive and hardener have mixed in the nozzle
- Apply three substantial beads of seaming adhesive along the full length of the joint - top, middle and bottom of the joint face. It is important that there is good coverage of the joint faces as any gaps in the adhesive could be a gate for moisture and water ingress, causing cracks in joints. (Spread the beads of adhesive across the joint face to guarantee good coverage). Adhesive is usually applied when the joint faces are vertical therefore it could run and drip from the bottom edge. An overlapping masking tape strip under the bottom edge of the joint face is a good way to retain the glue on the bottom edge.
- Assemble and begin to draw the joint together using the worktop connecting bolts. Ensure that bolts are at correct depth i.e. in the middle of the worktop thickness.
 - Continue to draw the joint together, aligning the front profiles but do not over-tighten.
 - It is necessary that an adhesive 'bead' is squeezed out of the entire joint line during tightening and left until the adhesive has cured. This indicates that there has been enough adhesive in the joint and as it hardens, the adhesive bead will slightly shrink and it ensures no gaps appear.
 - Ensure work surfaces are level and flat either side of the joint before leaving the adhesive to cure. You can check the alignment of the tops by wiping away a small section at the front and back of the joint, once aligned push back or apply more adhesive on the joint. Do not remove the adhesive from the area after checking.
 - If the top surfaces are misaligned, it may result in excessive sanding, causing surface thinning and therefore a colour difference between the joined sections.
 - You have a maximum of 6–8 minutes to do any alterations to the joint level.
 - Any excess adhesive can be removed from the angled joint on the front internal corner by cutting a piece of card to approximately the same angle and putting a small chamfer across the corner. This is used to wipe away the excess adhesive from the internal corner joint and allows a small bead to remain for curing. This will help when it comes to sanding off, as this area can be difficult to sand and polish.
- Leave the joint 40-45 minutes to dry. Do not sand or disturb the joint until the adhesive is hard i.e. when it is not possible to pick off the glue bead with a fingernail.
- Carefully remove the hardened ridge of adhesive at the joint with a Random Orbital Sander, initially using a 180 grit abrasive disc, taking care not to sand a depression in the surface. (Further sanding of the joint will be carried out at the finishing stage, with graduated abrasive discs). It is important that extraction is used when sanding. During the jointing process you may get some of the seaming adhesive onto the general surface area of the worktop, this will not damage the surface but once dry the only way to remove the adhesive will be by sanding. To prevent this, wipe off with Imanol immediately after the spill.

Cut-outs

When designing the worktop layout, never allow a butt joint seam to extend into a cut-out. The butt joint seam must be offset from all cut-outs, dishwasher or other heat generating appliances by a minimum of 100mm. When machining cut-outs in the workshop, it is advisable to only partially machine out the centrepiece, as its total removal could subject the product to possible damage when transporting to site. It is advisable to polish the areas surrounding the sink and hob before installation of the appliances as any corners would become inaccessible to polish afterwards.

The ideal method is to cut through the surface material into the core, to a depth of 35mm around the cut-out. Then take the router cutter through the final 5mm at each corner and for about 100mm each side. The remaining 5mm of core material can be simply jigsaw on site using a pencil mark drawn between the corners as a guide.

Hob cut-outs

When marking out the hob cut-out, allow approximately 1/4" (5mm) clearance on all sides of the hob box. If cutting on site, ensure proper clearance by measuring flange around hob top. Having cut and prepared the cut-out as above, apply heat reflective tape around the entire rim of the cut-out.

Position the tape so that there is an even rim on the top and bottom edge of the worktop. Do not mechanically fasten a cooker hob into the surface material. Heat reflective tapes are not designed to stop water ingress. Ensure adequate seal around the hob to prevent water reaching the chipboard cut-out. We would recommend that hobs are sealed with a heat resistant silicone sealant. This will prevent moisture ingress, excessive heat build-up and the potential risk of stress cracking



Sink cut-outs

When clamping a sink to the worktop, always use generous amounts of silicone sealant to seal the sink rim to the work surface and seal any exposed chipboard edges. Seal the edges generously with a good quality waterproof silicone sealant. PVA is **not** recommended as a long life seal.

Never install a Belfast sink with Minerelle worktops as the Product Warranty will be void if Minerelle is used for this application. Under no circumstances must internal corner cut-outs be finished with square corners. Always machine a radius to these corners and make that radius as large as is practical (8mm min).



Edge strip application.

Bring the edge strips to room temperature before fabrication, as they are brittle when cold and could inhibit a proper bond. When cross-cutting the worktops to a specific length, allow for the end-capping process. When the edge is routed, tape the edge strip in position and check the final dimension across the ends.

Edge preparation and bonding

- Check that the edge is the same colour as the top.
- Ensure the newly machined worktop edge is free of dust and make sure to clean the back of the edge strip with Imanol.
- Apply three beads of adhesive to the back of the edge strip - top, middle and bottom of the edge, to ensure total coverage (1/2 cartridge = 650mm x 40mm joint).
- The bottom edge of the edge strip must have a full bead of adhesive to ensure a full seal.
- Apply edge strip and press into position. Adhesive should squeeze out around the complete joint area top and bottom. Cramp in position using 3-way G-cramps or the 'A' clamps (max 100mm intervals) and allow adhesive to completely cure i.e. when it is not possible to pick off the adhesive with your fingernail (40-45 mins).
- Having established that the adhesive has cured, flush trim all proud edges and protruding sections with H D Router and appropriate trimming cutter. Make sure when doing this, that the worktop is fully supported and cramped to bench or trestles.
- Profile the edge with the 3mm radius router cutter or by hand with a sanding block and abrasive paper taking care not to mark the surface.
- Sand the edge profile as described in the following section, Surface finishing. It is recommended to sand at least 50mm of the underside of the worktop to provide a "smooth-to-touch" finish. However, dependent on the supporting carcass, this may be more easily done prior to installation.

Bending edge strips

Minerelle edge strips can be bent around curved edges e.g. a bow-fronted vanity unit. To bend the edge strip it is important that the edge strip is kept at room temperature (20°C) for at least 24 hours prior to bending. Lower temperatures may cause the edge to snap. However, to ascertain that the shape required is achievable by 'cold-forming', clamp the edge strip in place as a 'dry fit' before attempting to fix permanently with adhesive. If a tighter radius is required (minimum 250mm radius); it will be necessary to...

- Cut the edge strip at least 60mm longer than the actual length of the edge.
- Heat the edge strip by submerging the edge in hot or boiling water to a temperature between 80-100°C for around 30 - 45 seconds.
- Using the actual curved edge as a former, bend the edge strip to the shape required. Hold it in place with 'A' clamps and allow the edge strip to cool down. N.B. To avoid any water ingress we recommend the edge is covered in masking tape as a temporary moisture barrier. Do not use any adhesive at this stage.
- Remove the clamps and the edge strip will now be formed to the curve required. Also, remove the masking tape used as a moisture barrier.
- Clean the curved edge and newly formed edge strip with Imanol.
- Apply three beads of adhesive to the back of the edge strip in the prescribed way – top, middle and bottom of the edge, to ensure total coverage.
- Place the edge strip on the shaped top and replace the 'A' clamps until the adhesive is fully hardened i.e. when it is not possible to pick off the adhesive with your fingernail (40-45 minutes).

Corner radius fabrication

Minerelle is supplied with square corners, however a small, radius (max. 30mm) can be achieved by using a small piece of 12mm thick Minerelle.

- Measure and mark 15mm back from the standard square corner, along the front and side edges of the worktop. Draw a line (should be 45°) between the marks.
- Using this line as a guide, machine off this corner material to create a 45° angle across the corner.
- Cut a small piece (approx. 60mm square) of 12mm thick Minerelle.
- Clean the 45° angled corner of the worktop and the back of the 12mm thick piece of Minerelle with Imanol.
- Apply three beads of adhesive to the back of the edge strip in the prescribed way – top, middle and bottom of the edge, to ensure total coverage.
- Place the 12mm thick block on to the angled face and hold it in place using an 'A' clamp until the adhesive is fully hardened i.e. when it is not possible to pick off the adhesive with your fingernail (40-45 minutes).
- Remove the 'A' clamp and cut off the excess 12mm material with a hacksaw then flush trim the top and bottom proud edges with H D Router and appropriate trimming cutter.
- Draw the desired curve on the 12mm block insert, ensuring the edges of the worktop are tangential to the radiused curve and seamlessly 'flow into' the round corner radius..
- Using a sanding block and the appropriate grades of abrasive paper, sand the 12mm block down to the curve required.
- Profile the top and bottom of the newly curved edge to match the rest of the worktop by hand with a sanding block and abrasive paper, taking care not to mark the surface.
- Finish the corner radius as described in the following section, Surface finishing.

Surface finishing – to Random Orbital 240

Minerelle is factory finished to a linear 400 grit followed by random orbital sanding to 240 grit to remove any linear sanding lines. The following provides a set of techniques to finish the work surface to your customer's desired finish. The recommended finish is achieved by using a random orbital sander using a 150mm diameter pad and sanding the entire surface with a 320 grit abrasive disc

With even pressure, sand the whole surface moving the sander East-West then North-South, making sure to overlap half of the pad area as you progress. This should be followed by sanding in a circular, clockwise motion. If you sand anti-clockwise, you will leave curling, "pig's tail" marks on the surface. This is because you are working against the sander's rotation



Surface finishing continued:-

- We recommend that the sanding operation should last 15mins. per sq.m. (45 to 90 secs. per sq.ft.), depending on surface conditions and colour. Wipe down the surface with a damp cloth after sanding process to remove dust and debris.
- This sanding process is then followed by buffing with a grey abrasive Scotch-Brite® pad. Apply finishing cream to the surface and evenly spread it, using the grey pad. Then, place the pad under the random orbital sander and proceed with buffing until the cream completely dissipates. Then finally burnish the surface with a new dry grey abrasive pad until the desired sheen is achieved.
- Once you have finished buffing with the pad, remove surface residue with a clean cloth.
- The surface can be refined using our recommended solution, Minerelle Finishing Spray. Spray a moderate amount of Minerelle Finishing Spray and wipe over evenly to the entire work surface with a clean cloth and then rub it in using a clean, dry cotton cloth. You will then need to buff the surface with a fresh, dry polishing cloth until an even finish is produced.

Please Note: The higher the gloss level and the darker the colour the more visible any surface scratches become and therefore increased effort is required to maintain this finish.

Installing other Minerelle® products

The installation procedure as described throughout this text refers to the Minerelle worktop as the example product being installed. There are however, additional Minerelle products available as upstands, splash backs and workstations. The following information should be considered as complementary to the main installation text and related to each specific product as described.

Inline Work surfaces

The structure of the Minerelle Inline work surface is different to worktops. However, they are engineered to be installed in exactly the same way as the standard worktops. The product is made in a standard 1500 x 650 x 40mm format and designed to blend with the rest of the surface area of the standard Minerelle worktops. The 12mm thick surface coating of the Inline work surface allows the installation of undermount sinks and the provision of drainer grooves.

The same number of the biscuit joints and spacers are used in the 650mm width for the alignment of the tops however, care must be taken to ensure that the location of the biscuit slots is between 20-25mm from the face of the worktop.

Please Note: The joint placement of Inline work surfaces is slightly different to the standard worktop. To accommodate different widths of carcasses, the Inline work surface is sized so that it may extend beyond its supporting carcass sides. Should it be necessary to incorporate a joint above a dishwasher use a self-adhesive heat deflective aluminium sheet (approx. 650mm x 500mm) supplied (as an option) in our Minerelle Starter Kit, which can be obtained through your distributor. Ensure the full area of the joint and its jointing bolts are covered with the heat deflective sheet prior to the installation of the appliance.

Inline work surfaces can be ordered with pre-machined cut-out and drainer grooves many of the commercially available sink cut outs. Please ask your distributor should you have any specific requirements - Popular cut outs include:

SINGLE BOWL

Franke GAX 110 45
Reginox RF 500S
Rangemaster UB40

1½ BOWL

Franke ARX 160
Astracast Echo D1
Rangemaster UB 35/15

Upstand, Splashback and Skirting

Upstands, splashbacks and Skirting should be fixed using a good quality silicone or PUR adhesive system. Make sure walls are dry and moisture-free, and the upstands and splashbacks are clean from dust and grease. Upstands and splashbacks should be "finished" prior to fixing. Edges that are exposed should be sanded to the relevant finish.

Important

- Do not use 6mm sheet thickness at the back of hobs – for this we recommend 12mm with a good quality adhesive such as PUR.
- Apply a large bead of adhesive where the surface meets the wall and another bead about 10mm from the top at the back of the upstand or the splashback, and push firmly into position.
- It is not recommended to joint cast sheet a products to each other if bonding onto a wall, due to expansion and contraction:- we recommended a flexible sealant between the joints.

Product repair

Surface damage and deep scratches can be repaired using the Minerelle repair kit which is made to order upon request. The shelf-life of a repair kit is 3 weeks from fill date; this will reduce in warmer conditions. The repair kit is a 2 part product - the repair compound and the catalyst.

Contents of Repair Kit

• 1 tin of resin, 1 packet of colour matched granules (powder), 1 pair of Latex gloves, 1 bottle of catalyst, 2 paper cups, 2 mixing sticks and 1 bottle of 200ml Imanol (cleaning solution)

PLEASE NOTE: Temperature should be at least 17°C (62°F) to ensure a successful cure and no greater than 26°C (80°F). The colder the environment the longer the curing process will take. Ideally leave overnight before sanding. If possible carry out the repair in a warm area; this will also help the flow of the repair compound.

Steps in repairing

1. Remove the damaged area, by either drilling or routing-out no deeper than the surface. Any loose chippings must be removed from the damaged area.
2. To allow the repair compound to adhere properly, router around the damaged area creating clean, chip-free edges. Continue to take away the material within this area to a depth of 2 – 3mm.
3. Clean in and around the area with Imanol. Do not use nail varnish remover or similar which may contain mineral oil.
4. Thoroughly mix the contents of the resin and powder in the original resin tin so that the particles are mixed and suspended within the resin and make a homogeneous compound
5. Pour the mixed repair compound, from the original tin into the paper cup and up to the 'fill line'. Add 7 drops of the catalyst and mix the two together.
6. Pour the mixed repair solution into the prepared area. If you are repairing a vertical section then this can be achieved by building up a 'dam' or 'cup' around the damaged area with masking tape.
7. With the wooden spatula, gently tap into the solution to release any trapped air bubbles that may later cause problems when sanding. The solution should now be air-free and slightly overlapping and proud of the prepared area.
8. Always leave 24 hours to ensure repair solution is fully cured. Depending on the temperature of the environment curing time may vary.
9. When cured, carefully remove the ridge of hardened repair solution using a random orbital sander with a 180 grit abrasive pad until a smooth, level finish is achieved. Wipe off the dust with a damp cloth and repeat the process using 240 and 320 sanding discs. The Minerelle surface is now repaired and ready for you to complete the finishing process.

Care and Maintenance

General care in preserving the beauty and functionality of Minerelle is as simple as wiping with a warm damp cloth. Please read through these simple instructions in order to look after your Minerelle product. Everything you need to care for your Minerelle worktop is included in the Care & maintenance kit available from your distributor.

Contents of Care & Maintenance Kit

• 1 extra-absorbent Micro cloth (blue) • 1 bottle of Minerelle Finishing Spray (500ml)
• 1 extra-absorbent Micro cloth (pink) • 1 Care & Maintenance instruction booklet
• 1 Scotch-Brite sponge

Instructions

Dulling due to general wear and tear can be avoided by cleaning once a week with Minerelle Finishing Spray. We recommend the daily use of Minerelle Finishing Spray for the first seven days after installation. If soap is used for removing stains in dark colours it may be necessary to re-apply Minerelle Finishing Spray for restoring the original lustre.

Product warranty

If installed in accordance with our Fabrication and installation instruction, you can have peace of mind in that Minerelle is provided with a manufacturer's warranty for up to 10 years. Please "Contact us" on www.minerelle.com for full details of the warranty.



For re-ordering individual care and maintenance items such as Minerelle Finishing Spray or Grey 3M Scotch-Brite sponge please contact your supplier.

Items may be purchased directly by using the "contact us page on www.minerelle.com

For general information on Minerelle please contact your retailer or visit our web site at www.minerelle.com or www.minerelle.co.uk

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Minerelle Finishing Spray® is a registered trademark of Resaccs Limited.

Minerelle is manufactured in the UK by Resaccs Limited.
Metnor Business Park, Hadrian Road, Wallsend, Tyne & Wear, NE28 6HH, UK.

Co Reg: SC365963 VAT: GB 982 958 748

info@resaccs.com www.minerelle.com

ⁱ Factory finish – this finish is on all worktops manufactured since April 2008. Older products may still be available from distributor stock which is only to the linear sanding finish – if you have such tops, you will need to complete the sanding process from through 180 – 240 grit before continuing with the finishing process.