Kömmerling®
TODAY FOR TOMORROW

PROCESSING GUIDELINES

KömaDur® Wall Cladding

INSTALLATION INSTRUCTIONS FOR KÖMADUR WALL CLADDING SYSTEMS

KömaDur Wall Cladding sheets from Kömmerling are specifically designed for use in areas where hygiene is a key consideration, as well as in damp environments. They adhere reliably to all solid substrates suitable for interior fit-out and are ideal for both new builds and refurbishment projects.

Even in high-traffic public areas where impacts or wear and tear are to be expected, KömaDur Wall Cladding sheets offer a robust and durable solution. They can be installed with excellent results on all intact interior wall surfaces.

In many sectors, regulatory authorities are continually tightening hygiene requirements – particularly in food processing plants, medical facilities, commercial kitchens, abattoirs, hospitals and similar environments.

The KömaDur Wall Cladding MIC variant has antibacterial properties, with effectiveness against selected bacteria tested in accordance with DIN ISO 22196:2011. Furthermore, it complies with the additional regulations for use in cleanrooms and sensitive production areas.

To protect the surface, all sheets are fitted with a protective film at the factory. This should only be removed immediately before the area is put into use. During the construction or renovation phase, the film reliably protects the surface from dust and dirt.

The maximum operating temperature for KömaDur Wall Cladding sheets is 60 °C. Although they are suitable for numerous applications, they should not be installed in the immediate vicinity of strong heat sources – such as areas with hobs, ovens or similar. In such locations, direct exposure to heat or open flames may cause deformation or damage.

For applications of this kind, Kömmerling recommends the use of KömaAlu – aluminium composite sheets from its own product range.

The system comprises colour-coordinated, two-part PVC profiles for joints, transitions (e.g. from floor to wall) and for start and end sections.

A two-component PU adhesive is recommended as the standard adhesive for fixing the panels.

Matching silicone sealants are also available in the corresponding colours and complement the system both visually and functionally.
For optimum results, it is important to follow the installation guidelines carefully.

These instructions are provided for guidance only. Kömmerling accepts no liability for any errors or damage. If you have any questions, please contact your designated contact person at Kömmerling.

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Areas of application

EDUCATION, LEISURE AND TRANSPORT

- Schools
- Sports facilities (gyms, swimming pools, sports clubs)
- Catering & Event Venues
- Public transport

RETAIL AND SHOPFITTING

- Retail sales areas (e.g. butcher shops, bakeries, etc.)
- Cold rooms & freezer storage
- Staff rooms & changing rooms
- Common areas & sanitary facilities

FOOD INDUSTRY

- Areas of food preparation (e.g. abattoirs, cheese dairies, breweries, etc.)
- Sorting halls
- Storage/cold rooms
- Packaging & Dispatch Areas
- Restaurants & Canteens
- Hotel Kitchens & Catering

AGRICULTURE

- Livestock farming and dairy farms
- Sorting halls
- Storage rooms
- Cooling facilities / cold rooms

HEALTHCARE

- Hospitals: operating theatres, intensive care units, A&E departments and treatment rooms
- Laboratories & Research Facilities
- Private hospitals
- Doctors' surgeries
- Care homes & retirement homes
- Pharmaceutical factories

Discover the benefits of KömaDur Wall Cladding – for hygiene-sensitive areas and high-quality interior design.

Product range

Format	Thickness in mm	Surface
2440 x 1220 mm	2,5 mm	embossed, matt, smooth, coloured
3050 x 1220 mm	2,5 mm	embossed, matt, smooth, coloured

Other formats available on request

Technical Specifications

Bulk density	DIN EN ISO 1183	g/cm³	- 1,43
Fire behaviour	DIN EN 13501-1 (EU)	B-s3-D0	2,5 mm
	NF P92-501 (FR)	M1	1-3 mm
	UL 94 (USA)	V0/5VB	1-5 mm
	BSE 476 : Part 7 (GB)	Class 1	1,8mm 2,5mm

Features

- Glossy, matt or embossed finish
- Lightweight and easy to clean
- Suitable for material recycling
- Food-safe
- Durable and cost-effective in the long term
- High electrical and thermal insulation
- High impact strength
- Flame-retardant
- High chemical resistance
- Easy to work with + Installation
- Minimal maintenance required
- Easy maintenance

TOOLS AND ACCESSORIES

Generally speaking, the tools required are largely the same as those typically used by a carpenter. Below is a selection of tools that have proved particularly useful during assembly.

- 1 m and 2 m spirit levels and a laser level
- Fine-toothed saw
- Carpet knife
- Set square
- Chalk line
- Adjustable end-grain plane
- 5 m tape measure
- Hammer
- Carpenter's chisel
- Flat chisel
- Rubber mallet
- Carpenter's gouging chisel 19/25 mm
- Screwdriver
- Files (round and square)
- Hole cutters
- Hacksaw
- Whetstone
- Scraper plane
- Metal shears
- 50 mm brush
- Silicone spray gun
- Mixing paddle
- 5 mm C1 or C2 spatula
- Ballpoint pens and pencils
- Water-soluble marker pens
- Hand roller
- 3,000 mm long, rigid straight edge
- Electric jigsaw (with 'fine-toothed' blades)
- 750-watt electric drill (for mixing the adhesive)

Safety equipment

- Protective cream
- Safety goggles
- Protective gloves
- Face mask (nose and mouth protection)
- Helmet
- Safety footwear
- High-visibility vest

Other essential accessories

In addition, a workbench measuring 2.50 m × 1.22 m made of medium-density fibreboard (or a comparable material) is required. To prevent the worktop from sagging in the middle, it should be supported by suitable beams. This workbench provides an ideal work surface for sheets measuring 1.22 m × 2,500 mm or 3,000 mm.

TECHNICAL NOTES

Storage prior to assembly

- Store the sheets at the installation site for at least 24 hours before installation so that they can acclimatise to the temperature there.
- Always store on a level surface – never directly on the floor.
- Avoid damp surfaces (risk of condensation forming on the panels).
- Sheets stored on uneven surfaces may warp and should not be stored in this way.

Installation temperature

- Kömmerling recommends installing the PVC wall cladding sheets at an ambient temperature that corresponds to the room temperature once the system is in operation.
- ERecommended minimum temperature during installation: **18 °C**

Additional health and safety information

In addition to the generally applicable regulations in the construction industry, the following points must be observed:

- Wear safety goggles when mixing materials and adhesives, and during cleaning and preparation work – and whenever required by site regulations.
- Use suitable respiratory protection masks.
- Put up clearly visible warning signs when working with hazardous substances or to warn people about a work area.
- Ensure there is adequate ventilation in the work area.
- Collect and dispose of waste carefully in accordance with the applicable construction site regulations. COSHH data sheets (hazardous substances control) are available from Kömmerling.
- When mixing and applying adhesives, apply skin protection cream and wear protective gloves.
- Always keep your workspace clean and tidy.

PREPARATION OF THE SUBSTRATE

Requirements for the substrate

- Dry (max. 16% wood moisture content/WME), level and stable
- Free from dust, grease, dirt and loose coatings
- Seal cracks, joints and gaps professionally
- Flatness in accordance with DIN 18202, Table 3, Row 6
- Maximum flatness deviation: 3 mm over a 1 m measurement distance

Special notes

- Thoroughly clean and degrease ceramic tiles
- Remove loose tiles and fill in any gaps
- For painted surfaces, carry out an adhesion test

Installations and penetrations

- Sockets and electrical installations must only be modified by qualified personnel
- Where possible, dismantle pipework before installation
- Drill holes at least 3 mm larger than the pipe diameter
- Insulating hot water and steam pipes
- Distance between the pipe and the sheet: 3–5 mm
- Seal all penetrations with Kömmerling silicone

Check before fitting

- The substrate must be dry and stable
- Surface clean and free from grease
- Unevenness levelled out
- Pipe penetrations prepared
- Electrical installations adapted

MORE THAN JUST WALL CLADDING

A system for hygienic, durable interiors.

KömaDur Wall Cladding has been developed to meet high requirements for hygiene, durability and cost-effectiveness. The system combines robust PVC wall cladding sheets with coordinated profiles, adhesives and sealants to create a reliable system solution.

Whether in the food industry, the healthcare sector, the catering industry or public facilities - KömaDur Wall Cladding protects walls from moisture, dirt and mechanical stress while providing a high-quality appearance.

PREPARATION

1. SETTING UP THE WORKSPACE

Before starting installation, set up a suitable work area in the immediate vicinity of the installation site.

Work surface

- Minimum area: approx. 4 m × 3 m
- Use a sturdy workbench for cutting and machining the sheets
- Ensure there is sufficient space for the storage and handling of the sheets

Adhesive application station

- Set up a separate area for mixing the adhesive
- Protect the floor from dirt using cardboard or PE film
- Clean mixing tools regularly

Protective measures

- Covering floor coverings that have already been laid
- Remove any adhesive residue and dirt immediately
- Keep your workspace clean and tidy

Safety

- Ensure there is adequate ventilation
- Use personal protective equipment in accordance with the safety data sheet

2. PREPARING THE WALL SURFACE

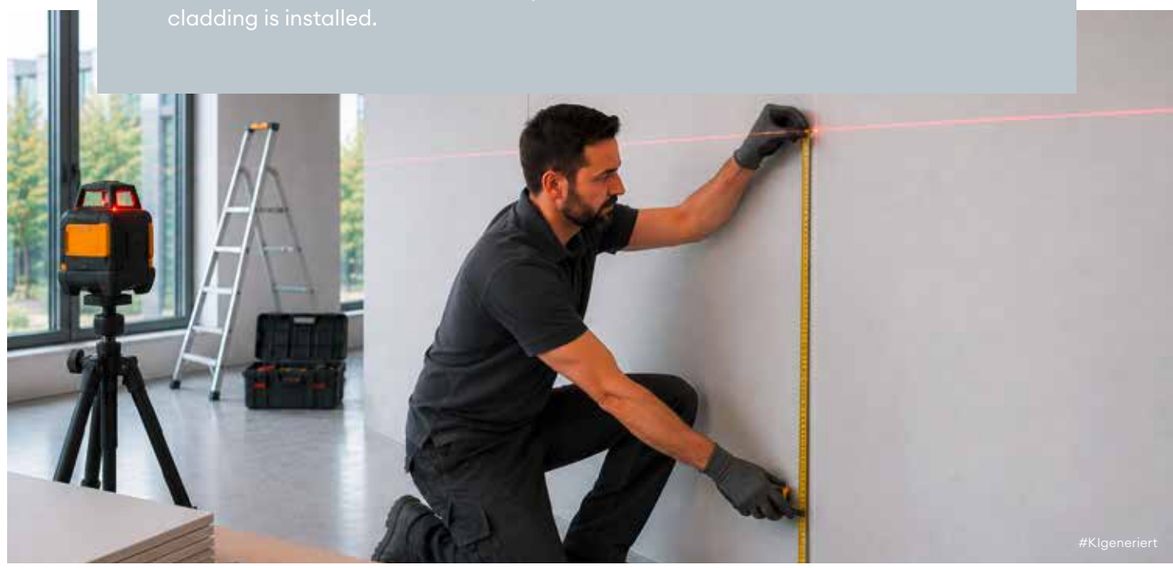
- The wall surface must be clean before installation begins.
- If necessary, please contact Kömmerling for specific recommendations on cleaning and preparation.

3. CREATE A REFERENCE LINE

- Once the preparations are complete, a reference line is marked out.
- This is used to measure distances to the ceiling, sockets, pipework, etc., and ensures that the sheets remain perfectly plumb during installation.
- The reference line should be positioned at approximately eye level and marked out using a laser level or spirit level to ensure maximum accuracy.

4. DETERMINE THE HEIGHT OF THE REFERENCE LINE

- The height is selected from the subfloor in such a way that there is sufficient space at the lower end of the PVC sheet for the skirting board.
- Depending on the floor finish (PVC flooring, artificial stone panels, PVC skirting, etc.) this gap must be adjusted.
- In the case of artificial stone sheets, recesses must be fitted before the wall cladding is installed.



5. CARRY OUT CONTROL MEASUREMENTS

- To determine an ‘average’ height, take measurements at several points in the room from the reference line to the raised floor.
- The height obtained (minus the skirting board height) is marked on the top edge of the PVC wall panelling.
- All further measurements are taken from this line.

6. TRANSFER MEASUREMENTS

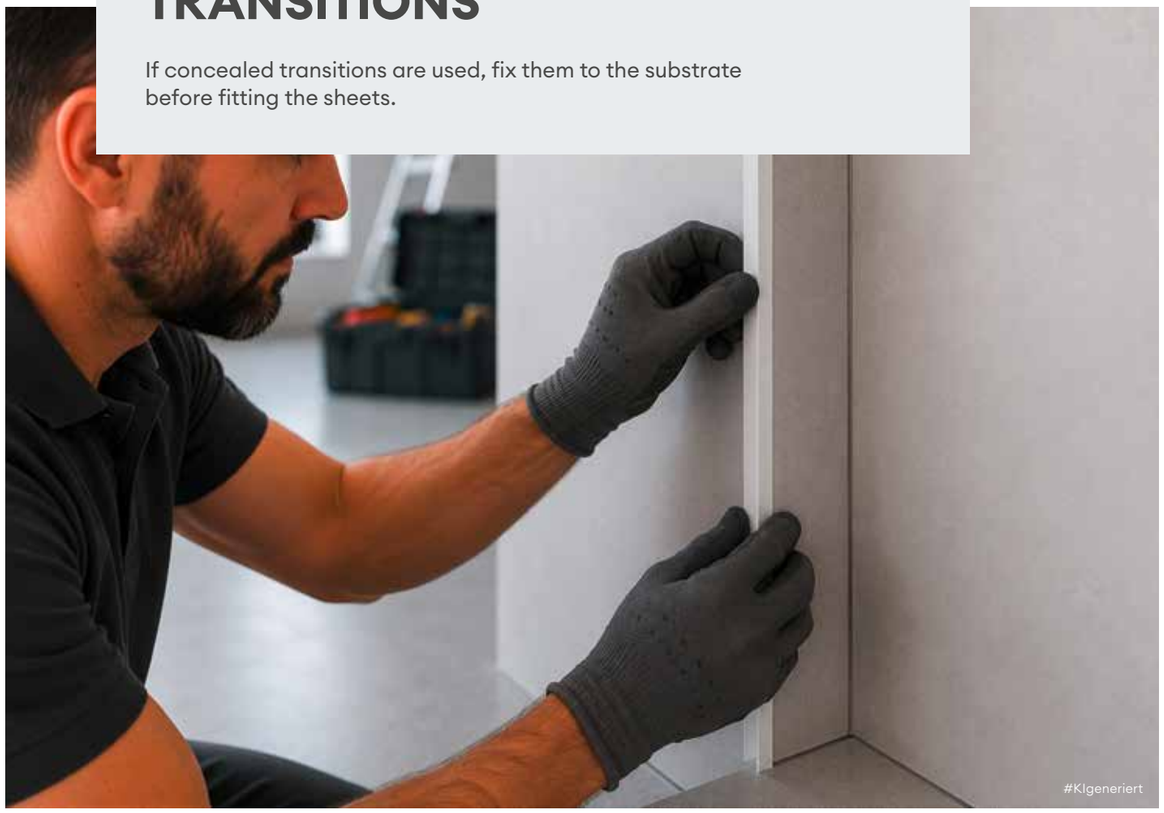
- After taking the measurements on the wall, transfer them to the board.
- During installation, the reference line on the sheet must line up exactly with the reference line on the wall.

7. PLANNING A SHEET LAYOUT

- Once the reference line and the average height have been determined, plan the layout of the PVC sheets.
- **Objective:** the best possible appearance and a minimum number of fasteners.

8. PREPARING FOR TRANSITIONS

If concealed transitions are used, fix them to the substrate before fitting the sheets.



FITTING THE SHEETS

Once all the preparatory work has been completed – the walls have been cleaned and are dust-free, grease residues (e.g. in kitchens or shower areas) have been removed, the reference line has been marked out and the primer has been applied – installation can begin.

1. PREPARE THE SHEET

- Place the sheet on the workbench and check it carefully for damage.
- Carefully mark the reference line on the front (with the protective film) using a pen, taking care not to press too hard to avoid scratching the surface.

2. TRANSFERRING MEASUREMENTS AND CUTTING TO SIZE

- Measure against the wall and transfer the measurements onto the sheet.
- Cut the sheet using a jigsaw or a hand saw fitted with a fine-toothed blade.
- Make sure the sheet is firmly supported whilst cutting to prevent stress and warping.

3. EDGE FINISHING

- After cutting to size, remove any burrs with an adjustable end-grain plane.
- The aim is to achieve a clean, smooth cut edge.

4. PARTIALLY REMOVE THE PROTECTIVE FILM

After cutting and planing, pull the protective film back about 50 mm from the edge and remove this strip.

5. DRY FITTING

- Hold the sheet against the wall and check that it fits.
- Leave an expansion joint of 2–3 mm at all joints and around pipe penetrations.

6. CLEAN THE BACK OF THE SHEET

Once the sheet has been fitted precisely, place it face down on the workbench and clean the back thoroughly. Both the surface and the sheet must be free of dust and grease.

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7. APPLYING ADHESIVE TAPE

- Apply double-sided adhesive tape to the top, centre and bottom of the back of the sheet, in line with the primed areas.
- Do not remove the protective paper from the adhesive tape at this stage.

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APPLYING THE PRIMER TO DOUBLE-SIDED ADHESIVE TAPES

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1. APPLY PRIMER

- Before installing the Kömmerling PVC sheets, apply the tape primer to three areas of the backing material using a 50 mm brush:
  - **Top**
  - **Middle** (usually just below the reference line)
  - **Bottom**
- These guide lines must be positioned exactly where the double-sided adhesive tape attached to the back of the sheet will later be placed.
- The adhesive tapes hold the panel securely to the substrate whilst the adhesive cures.
- Leave the tape primer to dry for about 10 minutes until it reaches a permanently sticky consistency.
- Apply the primer only where the adhesive tape is in direct contact with the wall.

2. PRIMING CORNERS

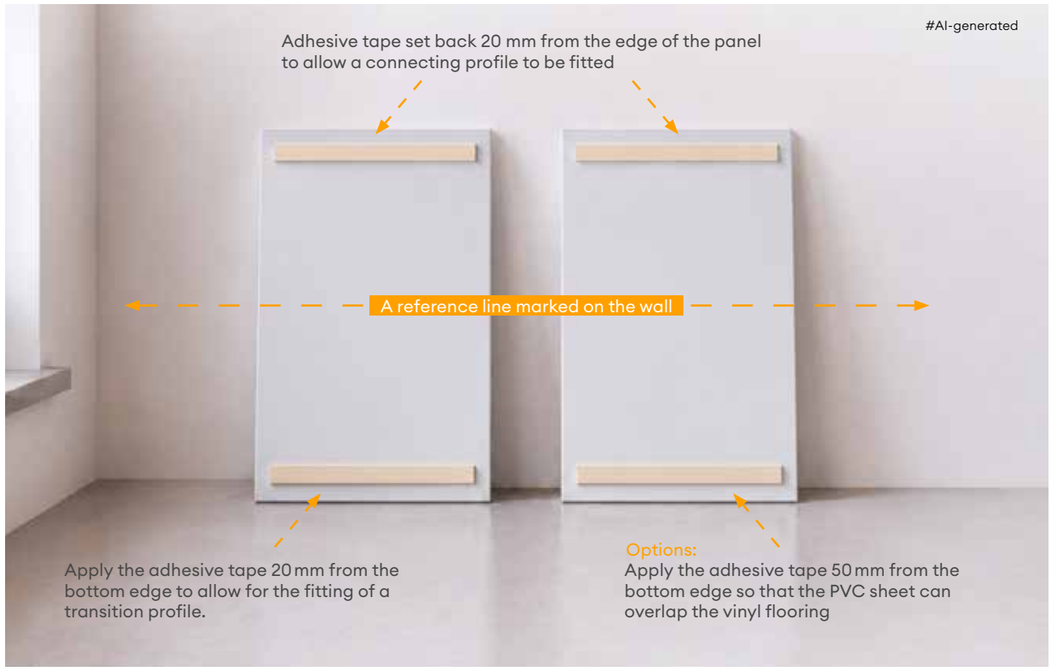
- In the case of two-piece (snap-fit) internal or external corner profiles, the wall corners must also be primed with W165 – ensuring that the entire installation area of the corner profiles is covered.
- This should be done at the same time as priming for the double-sided adhesive tape.
- Leave to dry until the surface has a tacky consistency.

3. FITTING THE CORNERS

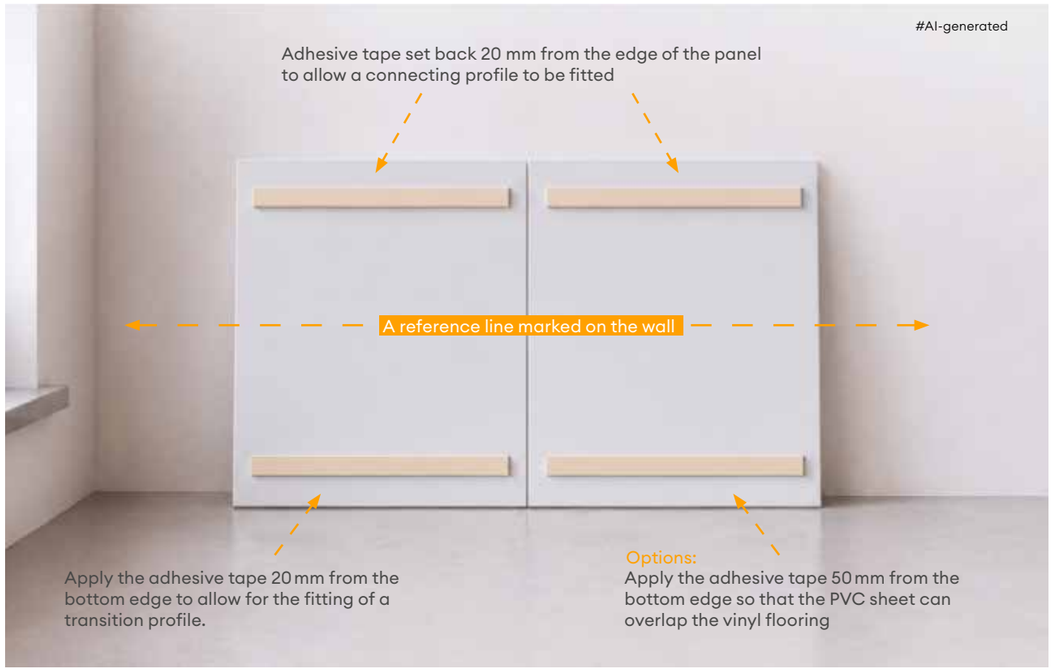
- On the back of the PVC corner pieces, apply four strips of double-sided adhesive tape (each approx. 150 mm long) along the entire length of the corner.
- Remove the protective film and fix the corner piece securely to the surface, ensuring it fits perfectly.

POSITIONING THE DOUBLE-SIDED ADHESIVE TAPE

OPTION 1: Vertical installation



OPTION 2: Horizontal installation



FIXING WITH ADHESIVE

The sheets can be fixed directly to most solid and dry substrate materials using a two-component PU adhesive. The adhesive is available in two pack sizes: 6.5 kg and 8.0 kg. It is supplied as part of the fixing system – together with connecting profiles, double-sided adhesive tape and silicone sealant (1 set per sheet).

- 6.5 kg for sheets 2500 mm long
- 8.0 kg for sheets 3000 mm long

Two-component adhesive – Application

- **Component A:** A thick, cream-coloured adhesive in a plastic container
- **Component B:** Catalyst (hardener) in a separate plastic bag inside the same container

Mix

1. Pour the hardener (Component B) into the container containing Component A.
2. Mix both components thoroughly for 2–3 minutes until a homogeneous consistency is achieved.
3. For best results, use an electric drill fitted with a mixing attachment.

Apply

Apply the mixed adhesive evenly to the cleaned back of the sheet using a 6 mm square-notched trowel (C2 according to TKB).

Health and Safety Information

- Read the safety data sheets before use.
- Use personal protective equipment (PPE) and suitable respiratory protection.
- Carry out an assessment in accordance with COSHH (Control of Substances Hazardous to Health) and a risk assessment.
- In the event of contact with the eyes or skin, rinse thoroughly with water immediately and seek medical attention.

APPLYING THE ADHESIVE

1. MIX THE ADHESIVE

- Mix Component A and Component B thoroughly for at least 3 minutes using a powerful drill fitted with a mixing paddle, until a uniform colour is achieved.
- The adhesive must be mixed mechanically – stirring by hand is not sufficient.

Wear protective equipment!

Use appropriate personal protective equipment (PPE) when handling adhesives and materials.

2. APPLY ADHESIVE

- Apply the adhesive evenly to the back of the panels using a 6 mm notched trowel (recommended type).
- Apply the adhesive starting approximately 20 mm from the edge of the panel (area for connecting profiles) and working towards the double-sided adhesive tapes.
- The working time is approximately 40 minutes, depending on the room temperature.

Hold the trowel correctly!

When applying the adhesive, hold the notched trowel so that the adhesive is spread evenly.

The notches on the trowel must be of a consistent depth across the entire surface.

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INSTALLATION OF THE KÖMADUR WALL CLADDING SHEET

- After applying the adhesive, carefully peel off the protective film from the double-sided adhesive tape. Lift the sheet and position it in the designated spot. Make sure that the reference line on the sheet aligns exactly with the one on the wall.
- Once the sheet has been fitted, press it firmly onto the substrate to ensure that the adhesive has been applied evenly and that a complete bond is formed. This is usually done using a hand roller or a rubber mallet (protected by a soft material or a block of wood) to prevent damage to the surface.
- If the adhesive is not applied in sufficient quantity, this may cause the sheet to come loose later on.
- Depending on the room temperature, the adhesive takes around 4 to 6 hours to set.
- Remove any adhesive residue from the sheet surface, the joining strips and adjacent areas immediately, before the adhesive sets.

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INSTALLATION OF ONE-PIECE PVC CONNECTING PROFILES

Preparation

- Before fitting, make a small chamfer or notch at the edges of the sheet.
- This makes it easier to slide the sheet into the profile and protects the integrated seal.

Installation

1. Fit the first sheet in accordance with the installation guidelines.
2. Slide the one-piece joint profile onto the edge of the sheet.
3. Before inserting the next sheet, apply a strip of silicone into the profile.
4. Slide the second sheet into the profile and align it.
5. Ensure that it sits evenly and is completely sealed.

Notes

- Do not damage the integrated sealing lips.
- Ensure that expansion joints are provided in accordance with the installation guidelines.
- Silicone sealant prevents the profile from slipping out of place later on.

INSTALLATION OF THE TWO-PART PVC CONNECTING PROFILES

Installation

1. Slide the rear part of the connecting profile behind the edge of the sheet.
2. Before fitting, apply a small dot of silicone to the back of the profile.
3. Align the profile so that it is approximately 3 mm from the centre line.
4. Insert the next sheet, also keeping it approximately 3 mm from the centre line.
5. Repeat the fitting procedure for all remaining sheets.

Completion

- Once the sheets have been fitted, fit the front profile covers.
- First position the covers by hand.
- Then carefully tap them into place using a rubber mallet and a protective block.

Note

- The gap of 2–3 mm on each side allows for the thermal expansion and contraction of the sheets.

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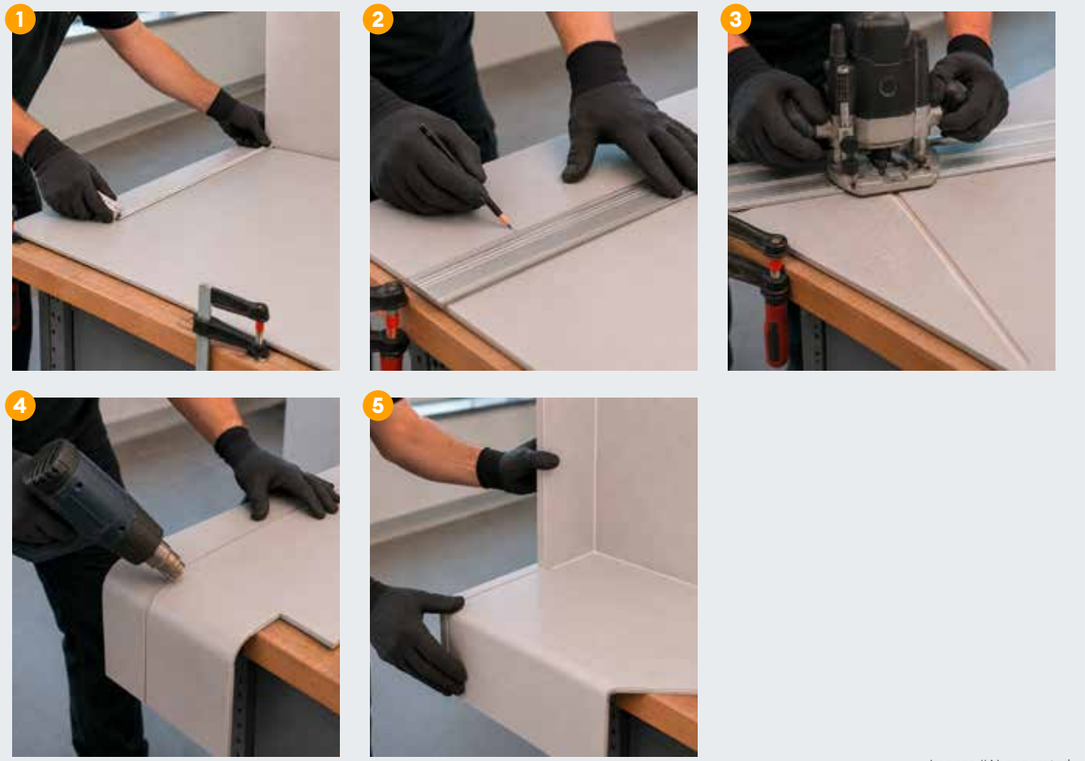
GROOVING AND BENDING FOR THE INSTALLATION OF KÖMADUR WALL CLADDING SHEETS IN CORNERS



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1. Measure the distance from the edge of the sheet to the corner and place the panel on a sturdy work surface to secure it firmly.
2. Mark the bending line on the back of the KömaDur wall cladding sheet.
3. It is recommended that you prepare a groove on the reverse side along the marked line before bending. The groove should be no more than half the thickness of the sheet.
4. For internal corners, place the groove against a straight edge of the workbench and heat it with an industrial hot-air gun until the material becomes pliable. Ensure that the temperature does not exceed 70 °C. Once the panel is flexible, carefully bend it to the desired angle.
5. For external corners, follow the same procedure: position the groove against the edge of the table, heat it with the hot-air gun and, once it has softened, bend the sheet to the desired angle.

INSTRUCTIONS FOR FITTING CLADDING USING KÖMMERLING PROFILES

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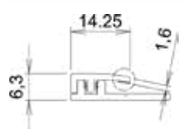
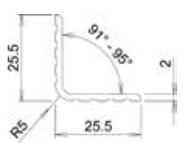
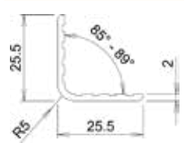
Z169 Starter Profile Set	H-Connector Set Z168	Inner angle 91080	External angle 91079
			

1. Apply the adhesive evenly to the back of the sheet in accordance with the adhesive manufacturer's instructions.
2. Attach a suitably cut H-base or a suitable profile to the wall and secure it in place.
3. Fit the first KömaDur wall cladding sheet to both the wall and the profile.
4. Press the sheet down evenly to ensure optimum adhesion and allow any trapped air to escape.
5. Position the H-base again, ensuring you leave a gap of at least 2 mm to allow for material expansion (see Figure 6). Then repeat steps 2 to 4.
6. Internal and external corners must have prepared grooves. For further details, see the section 'Grooves and bends for corner assembly' on page 25.
7. Once all the sheets have been fitted, peel back the protective film at the corners, leaving about 2 cm of film at the edges.
8. Carefully secure the profile caps by tapping them gently with a rubber mallet.
9. Do not remove the protective films until all other work on site has been fully completed.

INSTRUCTIONS FOR FITTING CLADDING USING WELDING RODS

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1. Apply the adhesive evenly to the back of the panels in accordance with the manufacturer’s instructions.

2. Attach the first panel to the wall.

3. It is recommended that double-sided adhesive tape be applied between the wall and the sheets. This prevents the adhesive from seeping into the 2 mm-wide gap intended for welding.

4. Fit the remaining sheets, taking care to maintain a gap of 2 mm between each panel.

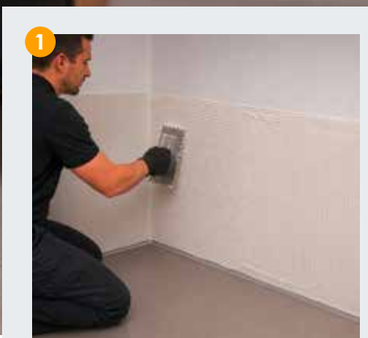
5. Apply even pressure across the entire surface of the sheet to ensure good adhesion and prevent air bubbles from forming.

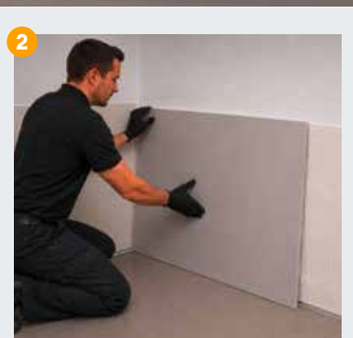
6. Once all the sheets have been secured, and before welding, peel back the protective film at the edges by about 2 cm on each side.

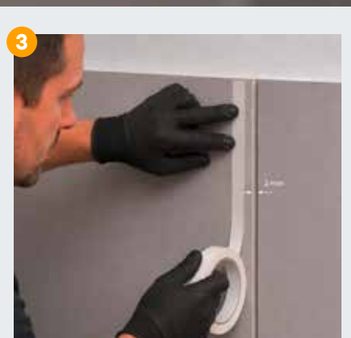
7. Weld the sheets together using Kömmerling welding wire at a temperature of 140 °C.

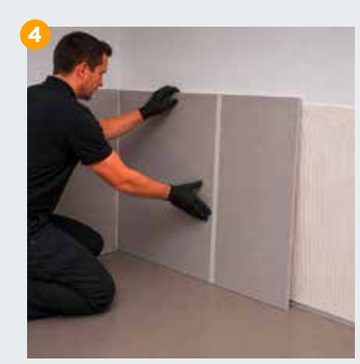
8. Cut the welding wire to length using a suitable knife. For recommendations on tools, please contact your Kömmerling sales partner.

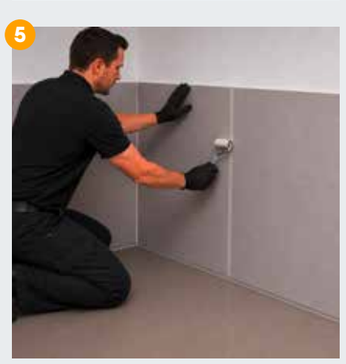
9. Do not remove the protective films until all steps have been completed.

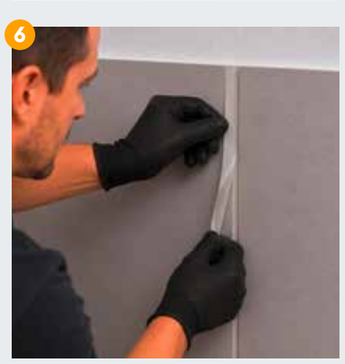


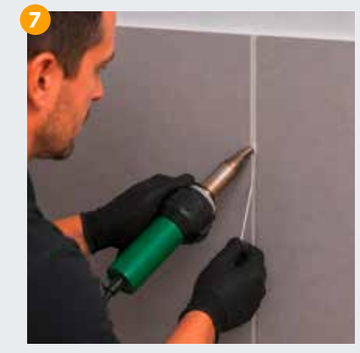


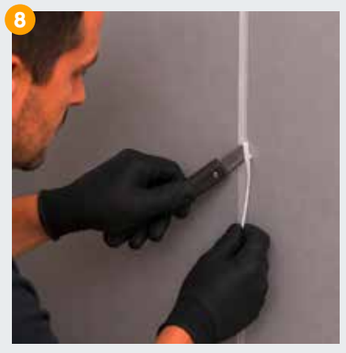


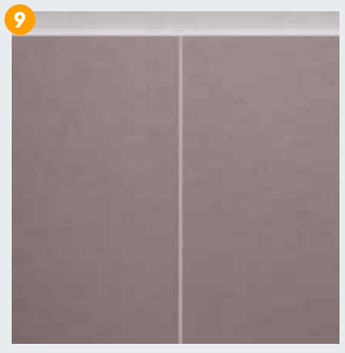












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COMPLETION

Once all the sheets and connecting profiles have been fitted and the silicone sealant has been applied, remove the protective film. Then clean all surfaces with the anti-static solution. This is important because static electricity can cause the sheets to attract dust particles from the air.

CLEANING

For regular cleaning, a soft cloth and a mild, suitably diluted cleaning agent are usually sufficient. For heavier grease stains, we recommend using an alkaline cleaning agent. Alternatively, a milder, non-abrasive household bathroom cleaning milk can be used.

When cleaning Kömmerling PVC sheets, the water temperature should not exceed 60 °C. If using a high-pressure cleaner, ensure that the temperature also does not exceed

60 °C and that the jet is not directed at a single spot for any length of time.

Avoid using acetone, MEK or nitro thinners, as well as chlorine-based, highly oxidising or abrasive cleaning agents and scouring sponges.

Test the cleaning agents on an inconspicuous area first.

#KömmerlingForTomorrow

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Subject to technical changes! 0826