

INSTALLATION PROCEDURE WET AREAS - H₂O SYSTEM

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WALL PROTECTIONS
& HANDRAILS

Sp^m
wall protection

Specifications

prepared by the applicant

A. Description of the system and its installation

1. Principle

1.1 Definition

System of PVC wall coverings to provide protection against water splashes and moisture in so-called wet areas, such as showers, cloakrooms and treatment rooms, which are connected to the floor by a skirting system in case of ceramic tiles or upstand for resin and PVC flooring.

This application only applies to the wall and the junction with the floor. The floor of the room in which the system is to be fitted must already comply with applicable requirements.

The system includes:

- The rigid PVC wall covering (in panels): DECOCHOC H2O, DECOCLEAN H2O, DECOWOOD H2O, DECOTREND H2O and DECOPRINT H2O
- The diminishing profile defined in *Section 2.3*
- The welding rods defined in *Section 2.4*
- The caulking products defined in *Section 2.5*
- The glues defined in *Section 4.72*

1.2 Area of application

This process aims to protect walls in areas that are occasionally or regularly at risk of water splashes, vapour or run-off.

This installation technique is suited to both new builds and renovations, and applies to the substrates described and explained hereinafter.

This technique excludes rooms with an expansion joint in one of the walls.

1.21 Degree of water exposure to the walls

Type 1 (areas subject to average humidity levels): Areas that are normally ventilated and heated, such as wet rooms with a shower tray and/or bathtub; showers in hotels, elderly care homes and hospitals; toilets and washbasins in offices.

Type 2 (communal wet areas): Communal showers, such as in boarding schools, factories, stadium cloakrooms and gyms; private wet rooms with a hydro-massage shower in the shower tray and/or bathtub; sanitary accommodations in public buildings and facilities, including schools, hotels and airports.

Refer to the classification definitions in *Table 9*.

1.22 Type of substrate

The coverings may be applied to the following substrates: walls made from concrete or precast concrete panels, cement-rendered walls, plastered masonry walls, walls dry-lined with standard or vapour barrier plasterboard, and ceramic tiles.

Refer to *Tables 6 and 7* for the compatible substrates, according to the wall classification

1.23 Panel service temperature

This application only applies to rooms where the wall temperature **does not exceed 30°C**, and whose ambient temperature may occasionally rise to 40°C.

1.24 Panel installation temperature

A temperature above 15°C is recommended when fitting the panels. The difference between the room temperature when fitting the panels and the room temperature when in use must not be greater than 20°C (e.g. if the room temperature at the time of fitting is 15°C, the

maximum temperature of the room when in use is 35°C).

1.25 Cleaning of our wall coverings

SPM panels are resistant to all known cleaning products in the market and can be cleaned by hand.

Walls may **only** be power washed (water pressure no more than 3 bar and temperature no more than 60°C) if the joints between the panels have been heat welded with a PVC welding rod and glue has been applied across the entire surface of the panels.

2. Definitions

2.1 Floor coverings

The following floor coverings are compatible:

- PVC flooring for shower systems covered by technical approval Gerflor 12/12-1629*V3 with an upstand
- Ceramic tiles according to applicable DTU codes of practice
- Resin according to applicable DTU codes of practice

2.2 Wall coverings

DECOCHOC H2O, DECOCLEAN H2O, DECOWOOD H2O, DECOTREND H2O and DECOPRINT H2O panels are rigid PVC wall coverings distributed by SPM:

- Appearance: plain, laminated or printed on the back
- Texture: smooth, textured or veined

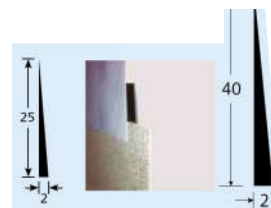
Table 1: Specifications of the above wall coverings

Characteristics	Test method	Values
Width (mm)	EN 24341	1300 (0 ; +4)
Panel length (mm)	EN 24341	2500 (+2 ; +10)
Thickness (mm)	EN 24346	1.5 ± 0.15 (H2O)
Weight (g/m ²)	EN 23997	2100 ± 150 (H2O)
Colour fastness	EN 20105-B02	> 6
Joint strength (kg/cm)	EN 684	> 8
Coefficient of thermal expansion (K ⁻¹)	ISO 11359-2:1999	7.8 x 10 ⁻⁵
Chemical resistance	ISO 26987	Resistant or barely susceptible to acid or cleaning products, as well as hospital products

2.3 Diminishing profiles

To compensate for the thickness of the upstand before fitting the wall covering.

Distributor: GERFLOR ref 0490 or SPM.



2.4 PVC welding rods

For wall coverings: PVC welding rod CR 40 or CR 50 from Gerflor.

The joint between the panels must be welded with this welding rod.

Distributor: SPM.

2.5 Caulking product

OTTO Seal® S54 silicon from OTTO-CHEMIE

This product is **only used** for caulking the junction with the ceiling, pipework and ducts, as well as the junction with the floor covering (tiles or resin) and door frames.

Distributor: SPM

3. Manufacture and inspection

3.1 Wall covering manufacture and inspection

The factory manufacturing the wall covering is certified to ISO 9001. The factory manufactures products according to a list of specifications that describes the products' characteristics and tolerances.

The quality control department carries out the following inspections:

- Raw material inspections and traceability in the manufacturing batches.
- Line inspections concerning colour and thickness.
- Finished product inspections concerning thickness, colour, straightness, squareness, tensile strength, dimensions, shine, contraction, and so on.

4. Implementation

4.1 Wall substrates

4.1.1 Compatible new wall substrates

Refer to Section 1.22

4.1.2 Renovations

4.1.2.1 Removal of the old wall covering

In case of major renovation work (damaged covering or wall), simply remove the old covering if applicable and repair the wall (plaster, dry line, etc.), so that the panels can be fitted on the wall substrates identified in Section 1.22.

4.1.2.2 Installation on tiles

The panels can be fitted on top of tiles if the bond between the tiles and wall is considered to be sufficiently strong and long-lasting.

The substrate must be prepared in accordance with Section 4.61.

4.1.3 Upper finish

- Directly beneath the ceiling: junction between the wall covering and the ceiling (see Figure 3)
- Cavities
 - Two possibilities:
 - Behind the false ceiling: the covering must be lapped up a few centimetres above the ceiling (see Figure 1)
 - Against the false ceiling: junction between the covering and the false ceiling's hanger (see Figure 2)

4.2 Design provisions

Refer to France's Act on Disability Rights and Accessibility 2005

Refer to the CSTB guide of 16 July 2012, entitled "Installing an individual walk-in shower in new builds."

4.2.1 Substrate requirements

Floor substrates

The floor covering must be compatible with the references specified in Section 2.1. The procedure for installing the floor covering is not addressed by these specifications.

Substrates (walls / partitions / tiles)

Vertical external wall angles: plumb in relation to the floor

Local flatness: 1 mm when measured with a 20 cm straight-edge

General flatness: 5 mm when measured with a 2 m straight-edge

Vertical trueness: 5 mm when measured with a 2.50 m straight-edge

Average hardness: 45 Shore C

Humidity: comply with the recommendations of the NF P 74-204-1 standard (DTU 59.4 code of practice): humidity < 5% by weight

4.2.2 Pipework

On the wall

Inlets and vents must protrude by at least 5 cm.

The gap between the pipe and the wall must be 5 cm, so that the wall coverings specified in Section 1.1 can be fitted.

4.3 Specific tools

Refer to the manufacturer's documentation.



- **Tape measure and pencil**
ROMUS part no. 93290
- **Knife with large hooked blade**
SPM part no. OUTCU001
- **Wood/PVC plane**
Lino plane, part no. JANSER 262 413 000
- **Stainless steel spreader with notched profile, type A2**
SPM part no. OUTCC001
- **Circular saw with a fine-toothed carbide blade for aluminium/PVC → for straight cuts and ripping**
ROMUS part no. 93891
- **Humidity tester**
ROMUS part no. 93250
- **Double-handed pressure roller**
SPM part no. OUTRM004
- **SPM acrylic glue**
SPM part no. AC003
- **LEISTER TRIAC S 230V 1550 W hot-air welding gun with ultra speed welding nozzle for 4/5 mm rods**
SPM part no. OUTMS001 or ROMUS part no. 95078 + 95027
- **SPM silicon**
- **Quarter moon knife/spatula knife**
ROMUS part no. 95140 or ROMUS Mozart part no. 95130
- **Triangular scraper**
ROMUS part no. 95185
- **Joint plane with two blades**
ROMUS part no. 95165
- **Bell saw or precision saw**
- **PVC smoother**
ROMUS part no. 93148
- **Retaining strap**
ROMUS part no. 93734
- **Non-residue solvent (grease or dry)**
Ethanol, isopropyl alcohol, heptane, graffiti remover
- **Tack rags**

4.4 Wall covering storage and installation

Storage

Refer to Section 6.1.5 of the DTU 53.2 code of practice of April 2007.

Temperature and humidity

The temperature of the substrate and atmosphere must be at least equal to 15°C.

- Check the moisture content of the surface to be glued in several places with a humidity tester. The moisture content of the surface must not exceed the level stipulated in the relevant DTU code of practice.
- Check that the wall surface is not greasy or flaky and that there are no large holes (any holes wider than 50 mm or deeper than 10 mm must be repaired with a suitable filler before installation). The substrate must be prepared in accordance with Section 4.6.
- Panels must be at the same temperature as the premises in which they are to be fitted (for at least 24 hours) to prevent any deformation.
- Any HVAC systems in the premises must be tested before panels are fitted.
- In case of a significant difference between the temperature when fitting the panels and the temperature when the premises are in service, use the maximum panel widths accordingly: **a 2 mm gap must be ensured between the panels before creating the joint.**

Table 2: Panel dimensions according to the installation temperature

Panel width (mm)	Installation temperature	
	< 18°C	> 18°C
> 1000	cut	OK
≤ 1000	OK	OK

4.5 Upstand

In all cases (PVC, tiles or resin), the floor covering must be lapped up the wall to connect with the wall covering and thereby ensure a watertight seal.

Various junction sealing techniques are available for each type of floor:

- **Direct:** if the floor and wall coverings are of the same thickness (+/- 1 mm), this solution involves welding the joint in case of a PVC floor covering or caulking with sealant for all types of covering. Refer to Figures 4a, 5a and 6. For PVC floors, the joint is welded with a CR40 or CR50 welding rod (refer to Section 4.75). The joint can also be sealed with a silicon joint (OTTO Seal® S54 SP 6491 from OTTO-CHEMIE).
- **Offset:** if the floor covering is thicker than the wall covering, this solution involves offsetting the difference using filler or a diminishing profile, so that the wall covering is flush with the upstand. The joint can then be heat welded or caulked with sealant (same principle as for the direct solution). Refer to Figures 4b and 5b.
- **Overlap:** this solution involves overlapping the upstand (with or without offsetting any difference in thickness) by gluing the wall covering over the upstand and finishing with a silicon joint at the bottom edge of the covering. Refer to Figure 4c.

Diminishing profile: refer to Section 2.3.

4.6 Preparing the wall substrate

Wall coverings are installed on a substrate that has been prepared in accordance with:

- DTU 59.4, DTU 25.41 and DTU 25.1 codes of practice.
- The technical assessment for the substrates concerned.
- The SPM installation guide.

A primer that is compatible with the substrate and glue is applied to the wall. The primer is used to increase the cohesion and adherence of the substrate.

Recommended primer: **refer to Table 7**

4.6.1 Installation on tiles

To ensure the best possible bond with the SPM acrylic glue, cover the tiles with a smooth-finish levelling or patching compound (the product must be suited to the substrate and approved for renovations) and then apply a primer.

The substrate must be surveyed and prepared in accordance with CSTB specifications 3528_V3 §6.1 (or e-specifications 3528), which also applies to the levelling compound.

4.7 Installing the wall covering

4.7.1 Layout and preparation of the panels

A design study must be carried out for each project to define the layout of the panels and the position of the joints according to the configuration of the room, equipment, wall fixtures and expected stresses in accordance with the maximum panel widths in Table 2.

4.7.1.1 Vertical installation (maximum width of 1300 mm)

- To be carried out before fitting the false ceiling brackets (if installing beneath a false ceiling).
- Installing the panels:
 - Mark a levelled line for the starting point - Prepare the panels
 - Always start from a corner:
 - In case of a prefabricated corner, use it as a template and trace an initial reference line.
 - Otherwise, start from the corner of the wall (after ensuring that the corner is plumb).
 - Mark a second vertical line corresponding to the width of the

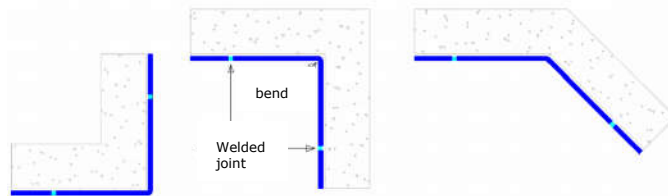
panel to determine the limits of the area to be glued on the wall.

- Measure the height of the wall to be covered.
- Cut the panels to size while allowing for a gap at the top if stopping beneath a ceiling Figure 3 or ceiling bracket Figure 2 (approximately 3 mm).
- When reaching the next corner:
 - In case of a prefabricated corner, use it as a template and trace an initial reference line and adjust the panel to fit the width, less two joint gaps (i.e. 4 mm according to Section 4.4).
 - Otherwise, leave a gap of at least 2 mm from the edge of the internal corner.

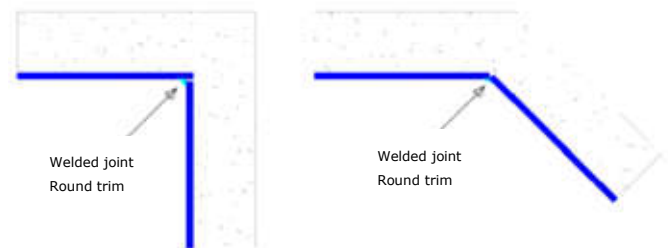
4.7.1.2 Corners

There are two possibilities:

1. To seal corners, you are advised to preform each corner by bending (heat) the panel either in the factory or on site using a bending machine (SPM part no. OUTSH001 or OUTSH002) and welding the joint with the next panel.



2. You can also cover corners by positioning two panels edge-to-edge with a gap (see Section 4.4) and sealing the joint with a CR40 or CR50 welding rod and trimming with a round scraper.



4.7.2 Gluing the wall covering

Install the covering in a single spread with the SPM acrylic emulsion glue using the finely serrated spatula (type A2) with a coverage of 250 to 300 g/m². The humidity level of the substrate and room must comply with the requirements of the relevant DTU code of practice.

You are advised to clean the panel's smooth surface (side applied into the glue) using a tack rag before fitting.

After applying the glue, fit the panel and press down over the entire surface using a roller.



The covering manufacturer recommends the glues listed in Table 3 below:

Table 3: Recommended glue for wall coverings

Manufacturer	Description
SPM	SPM acrylic glue, part no. AC003

Recommendations for gluing

Carefully follow the instructions provided by the glue supplier.

Carefully respect the waiting time, which depends on the temperature, the humidity level, the substrate's porosity and the coverage of the glue used.

4.73 Installing the panels

4.731 Vertical installation only

Present the panels in an upright position.

Start by installing the corners (if they have been preformed).

Fit the following panels while allowing a **2 mm** gap between each panel in accordance with the maximum panel dimensions.

Refer to Table 2.

4.74 Smoothing

a) During fitting

Vertical installation: remove the air pockets from top to bottom and from the centre to the edges.

- For preformed corners

Smooth out the edge with a rag and the corner roller (internal or external).

Smooth out from the angle to the outer edge.

b) Final smoothing

Smooth out the entire surface with a cork block, rag or double-handed pressure roller.

4.75 Jointing

4.751 Heat welded joints

Gap before chamfering: 2 mm.

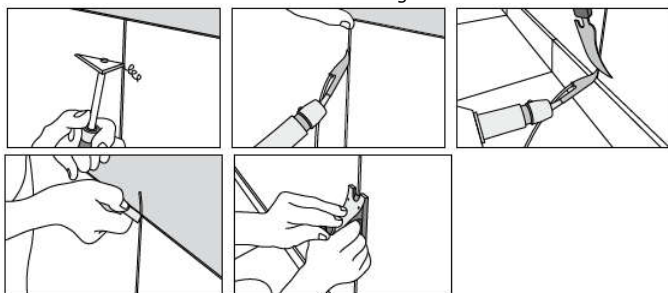
Always start with the vertical joints

a) Manual chamfering: clean the joint (all traces of glue must be removed from the joint).

b) The joint must be heat welded at 450°C to 500°C using a CR40 or CR50 welding rod and a vented ultra speed nozzle (the nozzle must be cleaned after each joint).

c) Joints are trimmed in two stages:

- Pre-trim the excess with a quarter moon knife and trim guide
- Trim with a SLIM or MOZART skiving tool



4.752 Sealant (only for joints between the panel and other materials)

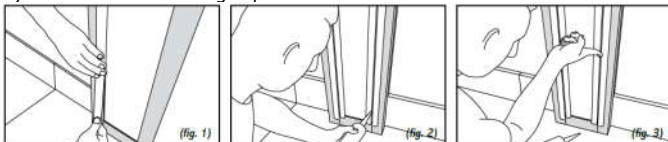
Gap: at least 2 mm.

a) Apply a strip of masking tape to protect each side of the joint.

b) Use a caulking gun to apply a bead of silicon along the length of the joint.

c) Spread the silicon caulk with a finger.

d) Remove the masking tape.



4.76 Jointing with the floor

4.761 Welding on the upstand

Gap before chamfering: 2 mm.

a) Manual chamfering: clean the joint (all traces of glue must be removed from the joint).

b) The joint must be heat welded at 450°C to 500°C using an SPM H2O welding rod and a vented ultra speed nozzle (the nozzle must be cleaned after each joint).

c) Joints are trimmed in two stages:

- Pre-trim the excess with a quarter moon knife and trim guide
 - Trim with a SLIM or MOZART skiving tool
- (Refer to Figures 4a and 4b).

4.762 Silicon caulking on the upstand

Gap: 3 mm.

a) Apply a strip of masking tape to protect each side of the joint.

b) Use a caulking gun to apply a bead of silicon along the length of the joint.

c) Spread the silicon caulk with a finger.

d) Remove the masking tape.

(Refer to Figures 5a, 5b and 6).

4.763 Overlapping the upstand

The wall covering overlaps the upstand of the floor covering by 3 cm. A diminishing profile (or similar system) must be used to lap the wall panel onto the skirting if the floor covering is thicker than 1 mm. Panels are glued to the upstand using acrylic glue. The material may need to be heated locally to help lap the panel over the upstand.

1 - Offset the difference in thickness with filler or a diminishing profile.

2 - Remove projections with a quarter moon knife over 3 cm (on PVC flooring if applicable).

3 - Protect the floor covering under the overlap with masking tape.

4 - Apply the acrylic glue to the top part of the floor covering.

5 - If necessary, heat the panel before smoothing out any air pockets.

6 - Apply a bead of mastic to the lower edge of the panel (refer to Figure 4c).

Diagram: Figure 8

4.77 Finishes

Pipes

Before installing the panel, use a bell saw to create a cut-out for any future pipes.

The panel can also be heated to soften and cut the material with a knife.

Special cases – Renovations

- Horizontal and vertical pipes

- Sanitary fittings

See Figure 7.

Wall fittings	
<i>Wall fixtures must be sealed by the plumbers when installing the different fittings (washbasins, cabinets, etc.).</i>	
- Washbasin, cabinet - Wall-mounted cistern - Grab rails - Inspection hatches	} Sealing product refer to Section 2.5
Through-floor services	
Collars and sealing productsee Section 2.5	
Through-wall services (heating, plumbing, etc.)	
<i>Through-wall services must be sealed by the plumbers when installing the different fittings (mixer taps, shower heads, hose holders, etc.).</i>	
- HW/CW inlet: shower, washbasin - Drainage: Grey water / black water - Heating	} Sealing product refer to Section 2.5
Electricity	
<i>Electrical fittings must be sealed by the electricians after the coverings have been installed.</i>	
- Light switches - Power outlets	} Refer to the NF C15-100 standard (October 1991) Minimum distance (in France) between an electric point and a fixed shower head or shower hose attachment: 1.20 m.
Natural ventilation: low inlet / high outlet	
<i>Fittings must be sealed by the electricians after the coverings have been installed.</i>	
- Mechanical ventilation: wall/ceiling vent	Seal with silicon joint Refer to Section 2.5

5. First use

Refer to Section 8 of the DTU 53.2 code of practice of April 2007.

6. Maintenance - Use

Panels have been tested for their resistance to the main cleaners, disinfectants and antiseptic products commonly used by local authorities and healthcare facilities.

The panels did not sustain any damage when tested with the products below:

Table 4: Recommended cleaning products

Detergent	SURFANIOS Premium DETERG'ANIOS UNIT PLUS (neutral) VERIPROP (neutral) DOPOMAT (alkaline) TRACIFLEX (alkaline)
Disinfectant detergents	DS5001 DIVOSAN S4 DIESIN HG SURFA'SAFE Premium
Descalers	TASKI CALCACID
Paint strippers	TASKI radical SUMA D9.7 COPEX (for rubber traces)
Disinfectant degreasers	DDM
Other	70° surgical alcohol Bleach Eosin Betadine Ammonia Aniospray surf 29

The recommended cleaning intervals are defined in *Table 8* hereinafter.

For better results when cleaning the panels, we recommend the following products:

- Ammonia
- Ethanol
- Isopropyl alcohol
- Heptane

SOLVENTS NOT TO BE USED

- White spirit
- Paint thinners
- Petroleum

7. Technical support for contractors

7.1 Panel installation training: course with individual certification

SPM organises two-day courses on installing and jointing panels. Upon successful completion, a certificate is awarded. This certificate is required for any company that does not specialise in fitting PVC wall coverings and which is required to heat weld joints.

The course content is as follows:

- General principles of installing panels and heat welding joints.
- Demonstration and installation of panels and heat welding of joints between panels and between panels and upstands.

SPM may provide project start-up support.

8. Monitoring - Maintenance - Repair

Users should regularly monitor that the structure appears to be securely in place and notify the client and/or original installer of any issues that users believe may result in potential risks for the durability of the structure.

Special attention must be paid to the joints between panels in areas that are strongly exposed to water or subject to mechanical stress from power washers to avoid a loss of integrity and subsequent water ingress, which could ultimately cause damage.

If the observations made by the user are found to be justified following

an inspection, the installation firm shall carry out repairs within the extent of its contractual and/or legal liability.

As part of monitoring the panels, the user should promptly report any accidents arising from the use of the premises, including accidental cuts and burns, so that such damage can be repaired.

B. Experimental results

Bond plane resistance

- Peel tests according to EN 1372 and shear tests according to EN 1373 (GERFLOR laboratory test results no. 14-12178 for MS Polymer and 14-11807 for acrylic glue)

Panel joint strength

- Determination of joint waterproof performance according to internal water column methods (GERFLOR laboratory test results no. 14-12072 and 14-12164)
- Determination of joint strength according to EN 684 (GERFLOR laboratory test results no. 12-11113, 12-11268, 14-12072 and 14-12164)
- Determination of joint compression according to internal methods (GERFLOR laboratory test results no. 15-12318)
- Determination of joint compression in full configuration, maximum service temperatures and power washing at 60°C (CSTB laboratory test results no. R2EM-SIST-15-26060288)

Product stability & characteristics

- Determination of dimensional stability and expansion according to EN 23999 (GERFLOR laboratory test results no. 14-12149)
- Assessment of product characteristics (GERFLOR laboratory test results no. 14-11807)

Resistance to chemicals

- Determination of staining and resistance to chemicals according to EN 26987 (GERFLOR laboratory test results no. 14-12173 and 14-11920)

Impact resistance

- Determination of impact resistance according to ISO 6603 (GERFLOR laboratory test results no. 14-11943) and EN 259 (GERFLOR laboratory test results no. 14-11923)

VOC emissions

- Determination of volatile organic compounds according to ISO 16000 (Eurofin laboratory test results no. G09750B)

Reaction to fire

- Fire classification according to EN 13501-1: B-s2, d0, valid for glue-down applications with a styrene acrylic primer at 100 g/m² and acrylic glue at 300 g/m² on any A1 or A2-s1, d0 substrate with a density ≥ 450 kg/m³ (CSTB laboratory report no. RA12-0356 of 02/10/2012 and CSI laboratory report no. PK 15-026)

C. References

- Year when the SPM wet area system started being installed: 2000
- Surface area installed since 2009:
Walls: 10,000 m²

Projects:

- Paul Boyrie swimming pool, Ave Altenkirchen, Tarbes (2013)
- Pool at the functional rehabilitation centre in Aubagne (2009)
- Showers, Jean Blot Stadium, Courbevoie (2012)
- Spa, Centre Thermoludique, Genos - Loudenvielle (2012)
- Fitness section, Sainte Perrine Hospital, Paris (2013)
- Full shower unit, Aurélia nursing home, CH Roanne (2014)
- Central kitchen, Rueil Malmaison (section 1: 2012; section 2: 2013)

Tables and figures in the specifications

Table 5 - List of wall substrates

Type of new substrates for wall coverings	Nomenclature	Reference documents for the structures concerned
<ul style="list-style-type: none"> Walls made from concrete or precast concrete panels: <ul style="list-style-type: none"> Ordinary faced concrete Fine faced concrete 	S1 S2	<ul style="list-style-type: none"> DTU 23.1 Cast-in-place concrete walls DTU 22.1 Precast concrete panel walls
<ul style="list-style-type: none"> Cement-based render on concrete and masonry walls: <ul style="list-style-type: none"> Cement render Lime-cement render Waterproof render, characteristics $E \geq 4$ $R \geq 4$, see MERUC classification. 	S3	<ul style="list-style-type: none"> DTU 26.1 Traditional render CSTBat certification for one-coat waterproof render
<ul style="list-style-type: none"> Plaster on masonry walls: <ul style="list-style-type: none"> Plaster with minimum hardness of Shore C ≥ 40 Plaster with minimum hardness of Shore C ≥ 60 	S4 S5	<ul style="list-style-type: none"> Technical assessment DTU 25.1 Interior plasterwork NF B 12-301 Manual or machine-based interior plasterwork with normal or very high hardness ⁽¹⁾
<ul style="list-style-type: none"> Structures using standard plasterboard (paper face): <ul style="list-style-type: none"> Thermal insulation applications Partitions or dry lining 	S6	<ul style="list-style-type: none"> NF P 72-302 ⁽²⁾ Plasterboard NF P 72-203-1 (DTU 25.41) (structures using plasterboard) NF P 72-204-1 (DTU 25.42) (internal insulation and wall linings using gypsum composite panels) Technical assessments concerning partitioning and dry lining
<ul style="list-style-type: none"> Structures using vapour barrier plasterboard - type H1 (green or specific marking) 	S7	<ul style="list-style-type: none"> NF P 72-302 ⁽³⁾ Plasterboard ⁽⁴⁾ DTU 25.41 - Structures using plasterboard DTU 25.42 - Internal insulation and wall linings using gypsum composite panels Technical assessments concerning partitioning and dry lining

⁽¹⁾The current classification for plaster is provided by the NF B 12-301 standard. Specifications relating to plaster hardness are given in DTU 25.1 (Section 5.5). The correspondence with the plaster descriptions specified in the NF B 12-301 standard is indicated below:
Requirement for a minimum hardness rating of Shore C ≥ 40 : this requirement is satisfied for PFM plaster (formerly PFC) and PGM plaster (formerly PGC)
Requirement for a minimum hardness rating of Shore C ≥ 60 : this requirement is satisfied for PFP, PGP, PFM-THD, PGM-THD, PFP-THD and PGP-THD plaster (formerly projection plaster and THD plaster). THD plaster has a minimum hardness of 75 Shore C and therefore clearly meets this requirement.

⁽²⁾ European standard EN 520 currently being published. Plasterboard is subject to the NF mark.

⁽³⁾ European standard EN 520 currently being published.

⁽⁴⁾ H1-type vapour barrier plasterboard is subject to the NF mark.

Table 6 - Permissible wall substrates based on exposure to water

Substrate	Concrete		Cement-based render	Plaster		Partition or dry lining	
	S1	S2	S3	S4	S5	S6	S7
Premises							
Type 1 / EB (Section 1.21)	(1)		(3)				
Type 2 / EB+ (Section 1.21)	(2)	(2)	(3)			(4)	
	substrate not permitted						
	substrate permitted for direct glue-down						
(1)	coated with a type S5 smooth-finish render or gypsum- or cement-based smooth-finish levelling compound						
(2)	coated with a smooth-finish render or cement-based smooth-finish levelling compound						
(3)	denibbed and/or coated with a smooth-finish cement-based levelling compound (as per DTU 59.4 code of practice)						
(4)	S6: only renovated substrates are permitted and for private communal wet areas						

Table 7 - Primer application according to the wall substrate for SPM acrylic glue

Manufacturer	Description according to the type of wall substrate				
Type of wall substrate	Cast-in-place concrete NF P 18-210-1	Cement render NF P 15-201	Plaster NF B 12-301 NF P 71-201	Standard plasterboard NF P 72-203	Vapour barrier plasterboard
	S1/S2	S3	S4/S5	S6	S7
UZIN	Universal primer PE360 Plus				

Table 8 - Maintenance - Use

Wet areas	First use	Protection	Daily cleaning	Weekly or monthly cleaning
Wall covering	Cleaning with neutral detergent.	No	Cleaning with neutral detergent	Washing Cleaning with neutral detergent

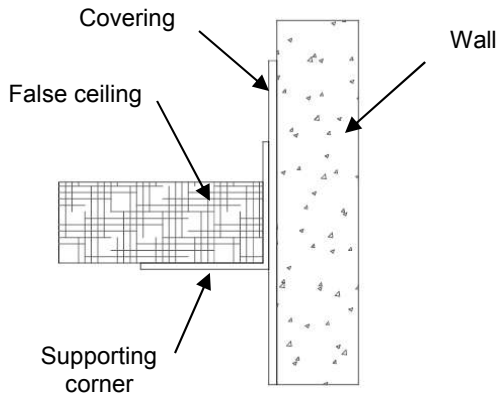


Figure 1 - Finish above the false ceiling

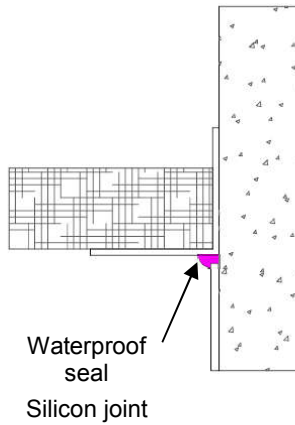


Figure 2 - Finish beneath the false ceiling

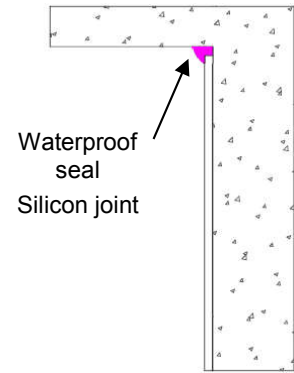


Figure 3 - Finish beneath the ceiling

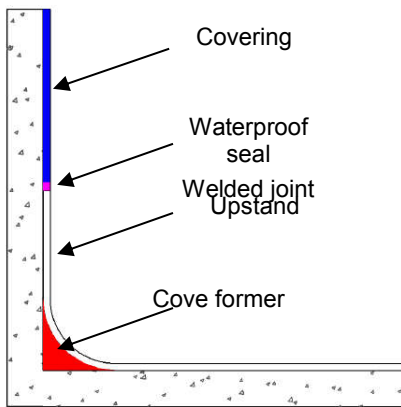


Figure 4a - PVC flooring upstand: direct weld/joint

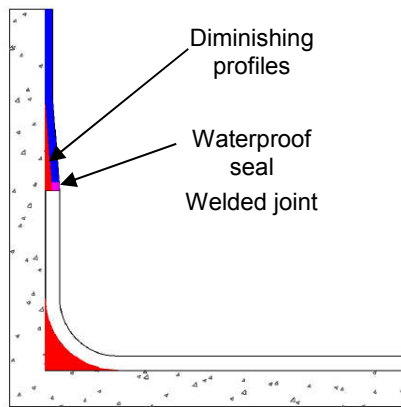


Figure 4b - PVC flooring upstand: weld/joint with diminishing profile or filler

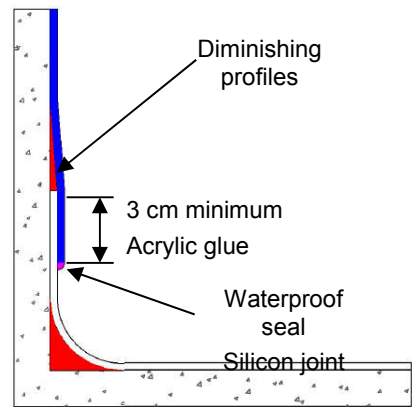


Figure 4c - PVC flooring upstand: joint and overlap with diminishing profile or filler

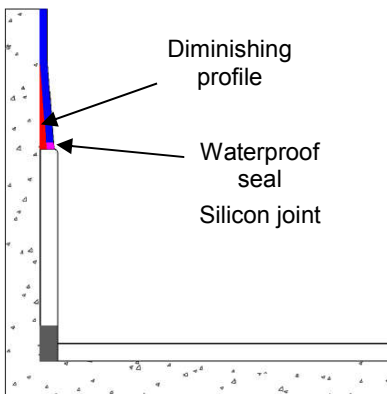
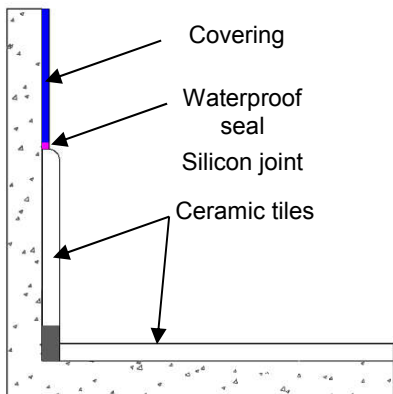


Figure 5a – Skirting tiles: direct joint

Figure 5b – Skirting tiles: joint with diminishing profile

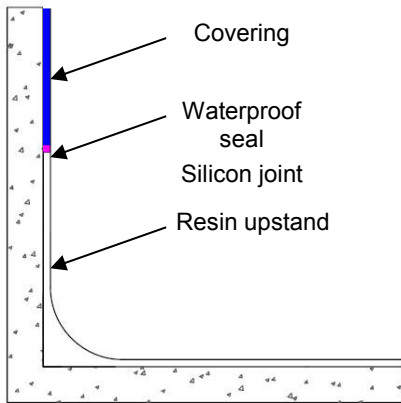


Figure 6 - Resin flooring upstand: direct joint

Figure 7 – Special case: renovation

- Group of pipes in a corner
- Creation of a cant
- Upstand on the cant

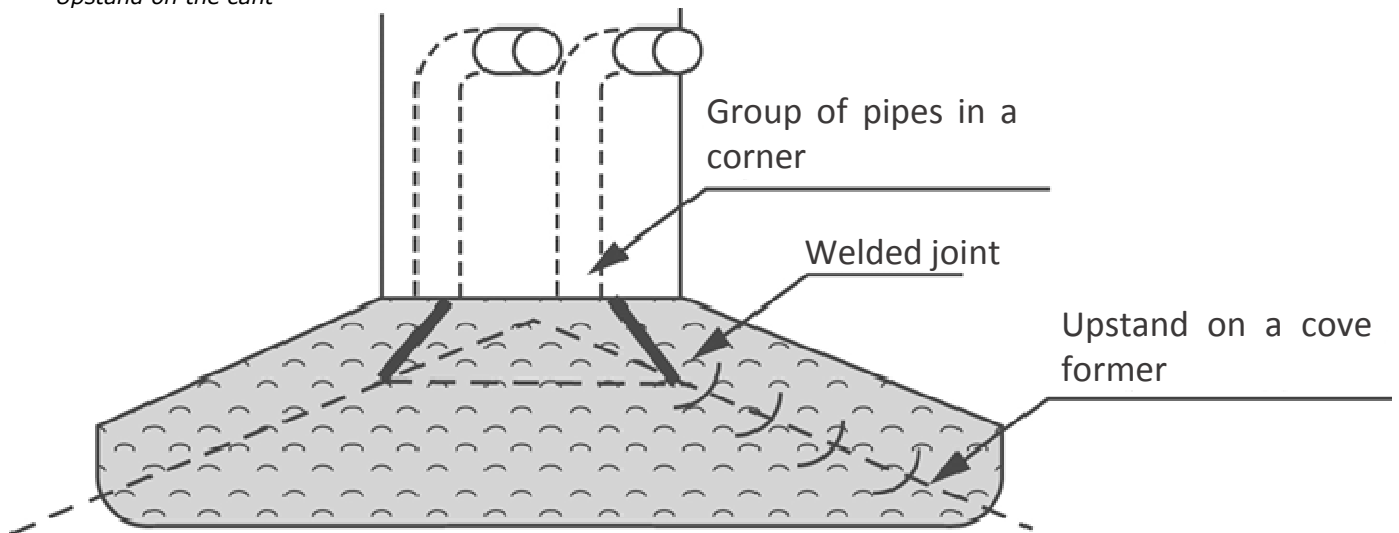
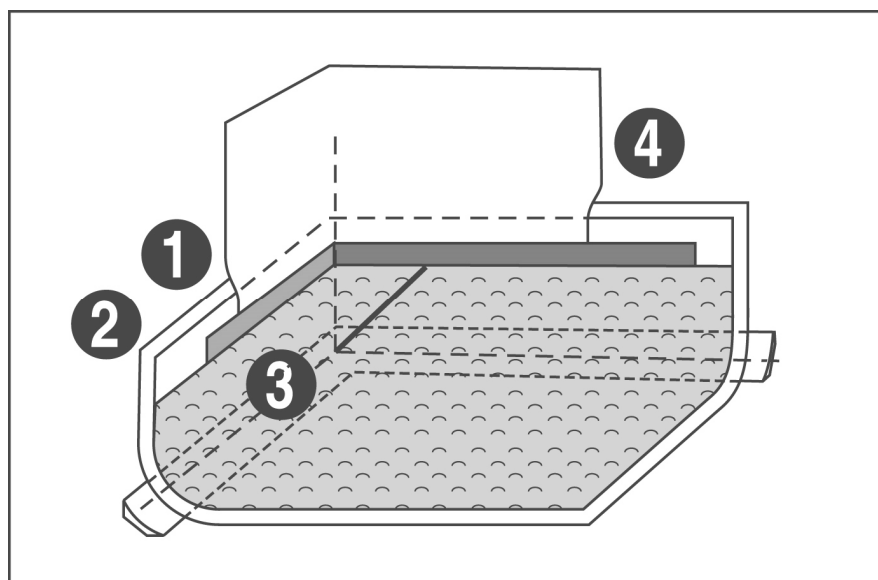


Figure 8 – Covering the edges with an upstand



1 - Offset the difference in thickness with filler or a diminishing profile.

2 - Remove floor covering projections with a quarter moon knife over 3 cm.

3 - Protect the floor covering under the overlap with masking tape.

4 - Apply the glue up to the masking tape. Remove the masking tape before installing the panel.

5 - Smooth out air pockets from the panel with a flat roller.

Table 9 - Degree of water exposure to the walls

Room type	Room humidity level	Exposure to water	Care and cleaning	Classification examples
EB Areas subject to average humidity	Average humidity	While the premises are in use, there are occasionally water splashes, but no run-off.	Water is used for maintenance and cleaning, but power washers are never used. Walls are cleaned using non-aggressive methods and products.	Areas are normally ventilated and heated: Communal areas: - Classrooms Areas for private use: - Room with water fittings (kitchen, toilet, etc.) - Heated storerooms - Private kitchens
EB+ Private areas Wet areas for private use	High humidity	While the premises are in use, water is occasionally splashed onto at least one wall (run-off).	Water is used for maintenance and cleaning, but power washers are never used. Walls are cleaned using non-aggressive methods and products.	Areas are normally ventilated and heated: - Wet rooms with a shower tray and/or bathtub - Unheated storerooms, garages - Shower enclosure or private bathroom in a public-access building: showers in hotels, elderly care homes and hospitals - Toilets and washbasins in offices
EB+ communal areas Communal wet areas	High humidity	While the premises are in use, water is splashed and runs off the walls intermittently for periods longer than the private EB+ classification, and the aggregated run-off period over 24 hours does not exceed three hours.	Water is used for maintenance and cleaning. These types of premises are normally power washed, meaning that drainage must be provided (e.g. floor drain). Power washers must not be used with a pressure in excess of 10 bar. Panels are cleaned (generally on a daily basis) with products whose pH is between 5 and 9 at a temperature of $\leq 40^{\circ}\text{C}$.	- Individual showers for communal use, such as in boarding schools and factories - Communal changing rooms, except for direct communication with a room subject to extremely high humidity levels - Offices, areas for reheating meals without a washing area - Private wet rooms with a hydro-massage shower in the shower tray and/or bathtub - Non-commercial washing facilities (schools, hotels, holiday centres, etc.) - Sanitary accommodations in public-access buildings: schools, hotels, airports, etc.