NBS M50
ALTRO TEGULIS™ WALL SHEET (ALTRO 2.5mm UPVC WALL SHEET)

TYPE(S) OF COVERING

110 PVCu LININGS TO WALLS:
- Project:
- Location:
- Substrate:
- Preparation:
- Sheet: Extruded semi-rigid PVCu sheet, EU Grade
- Maximum service temp: 60°C
- Fire rating: EN13501-1 B-s3, d0
- Manufacturer / Product reference:
  - Altro Tegulis hygienic wall sheet
  - Altro Limited
    - Telephone: +44(0)1462 707600
    - email : enquiries@altro.com
    - website : www.altro.com

- Width: Dependent on design
- Length: Dependent on design
- Thickness: 2.5 mm
- Surface finish: Satin
- Colour: various
- Light reflectance values: ask for details
- Adhesive: AltroFix™ W139 / AltroFix W157 / AltroFix W639
- Joints:
- Accessories:
- Maintenance and finishing:
- Special requirements:

GENERALLY

210 WORKMANSHIP GENERALLY:
- All bases must be rigid, dry, sound, smooth and free from grease, dirt and other contaminants before coverings are applied.
- Finished coverings must be accurately fitted, jointed as per manufacturer's instructions, securely bonded, smooth and free from air bubbles, rippling, adhesive marks and stains.

220 SAMPLES**:**
- Before placing orders, submit for approval a representative sample of each type of covering. Ensure that delivered materials match samples.

230 CONTROL SAMPLE(S):
- Complete area(s) of the finished work in approved location(s) as follows, and obtain approval of appearance before proceeding:

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_____
_____

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251 LAYOUT:
- Set out sheet coverings so that joints are kept to a minimum.

310 MARKING:
- Ensure that materials are delivered to site in original packing, clearly marked with batch number.

320 STORAGE:
- Store materials in a clean, warm, dry, well-ventilated place and must not be stored outside in direct sunlight as distortion can occur. Keep in original packing until conditioning commences.

330 COMMENCEMENT:
- Do not install materials until building is weather tight, wet trades have finished their work, the building is well dried out, all paintwork is finished and dry, conflicting overhead work completed, and service outlets, duct covers and other fixtures around which the materials are to be cut have been fixed. Inform CA not less than 48 hours before commencing fitting.

340 CONDITIONING:
- Sheets should be stored flat, fully supported and left for 24 hours to attain the ambient room temperature prior to installation (minimum 14°C). Minimum conditioning time to be increased by a factor of 2 for materials stored or transported at a temperature of less than 10^0C immediately prior to installing.

350 ENVIRONMENT:
GENERAL
- Before during and after laying, provide adequate ventilation and maintain temperature and humidity approximately at levels which will prevail after the building is being occupied.

350A ENVIRONMENT:
HEAT
- Areas where open cooking or open flame equipment is being used should comply with the following:
- Altro PVCu wall sheets have a maximum working temperature of 60°C and once installed should not be exposed to temperatures above this. For areas that exceed these maximum temperatures, such as direct heat sources or where there is exposure to naked flames (examples being air fryers, heat vents, cookers, oven ranges, wall-mounted griddles etc.) it is recommended that stainless-steel sheets are used. Where installations of stainless-steel sheets are to be included, the stainless steel must extend at least 300mm beyond the heat source to ensure protection of these localised areas is maintained. If a layout drawing highlighting areas where heat may be of concern can be provided, specific advice can be provided as to the best combination of materials to use.
- Before the testing of Kitchen equipment which is likely to expel severe heat, extraction systems must be operational. Failure to do so may result in expansion problems.
- With the construction of a dry wall system in a kitchen area or where the area has been adapted to form a wall behind cooking ranges. Altro Walls recommends the substrate or dry wall lining should be constructed with a Calcium Silica board. Stainless steel panels should then be used to clad these areas.
- Hot pipes and steam pipes should be insulated and a 3-5mm expansion gap should be created when installing panels around these pipes.

PREPARING SUBSTRATES

410 SUITABILITY OF NEW SUBSTRATES AND CONDITIONS:
- Fitting of coverings will be taken as joint acceptance by the Main Contractor and Subcontractor of the suitability of the substrates and conditions within any given area.

420 SUITABILITY OF EXISTING SUBSTRATES AND CONDITIONS:
- Before commencing work the subcontractor must confirm (through the Main Contractor) that

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existing substrates will, after the specified preparation, be suitable to receive the specified coverings.
- Fitting of coverings will be taken as further acceptance of the suitability of the bases and also of the conditions within any given area.

430 DAMPNESS**:** Where linings are to be fitted on new wet-laid substrates:
- All substrates to be dried to minimum of 16% WME (Wood Moisture Equivalent) on Protimeter 'Surveymaster' equipment or similar.
- Take readings in all corners, along edges, and at various points over the area being tested.

440 SUITABLE SUBSTRATES: GENERAL
- The specifications for finishes to receive PVCu wall cladding require:
- Good quality fairfaced brick or blockwork. Well aligned joints bagged up flush. Straight to within 3mm over a 2m straight edge and bricks/blocks flush with ones adjacent.
- Sand & cement rendering 1:3 to steel trowel finish.
- 12.5mm thick plasterboard. (do not seal with sealers as for decorating). If wall is affords fire protection ensure joints between plasterboard sheets filled with appropriate fillers.
- Minimum 9mm W.B.P. resin bonded plywood fixed at 200mm centres to suitable studwork or direct to solid substrate.
- Minimum 9mm MDF dense wood based panels fixed at 200mm centres to suitable studwork, or direct to solid substrate.
- Ceramic tiles which are clean and securely bonded to substrate.
- Certain sound painted surfaces (an adhesive test is advisable to ascertain compatibility).
- Plastered surfaces - finished with steel trowel. (pink lightweight plasters generally not suitable).
- Porous surfaces to be thoroughly sealed with diluted PVA applied to the surface 12 hours prior to the installation. The sealer should be used in a diluted ratio of 1:10. Alternatively use Altro Primer Seal Ref: AGCPNF/01

470 SUBSTRATE PREPARATION - EXISTING WALL FINISH TO BE REMOVED:
- All loose paint and dust to be removed.
- Friable surfaces should be removed or made sound.
(Please consult Altro regarding approved sealing treatments)
- Make good as needed by local patching or filling with a repair mortar or sand and cement with Unibond mix, to give a smooth, even surface.
- Straight to within 3mm over a 2m straight edge

480 EXISTING WALL FINISH TO BE OVERLAID:
- Make good as needed by local patching or filling with a repair mortar or sand and cement with Unibond mix, to give a smooth, even surface.
- Ceramic tiles should be thoroughly degreased, using suitable degreasing agent and scouring pad, rinsed with clean water and allowed to dry. Tiles should be abraded with diamond disc and all dust removed. Loose tiles should be removed and the area made good using Ardurapid 45 repair mortar or sand and cement with Unibond mix, if drying time permits. Alternatively, suitable thickness WBP plywood, screwed and plugged, (maximum 200mm centres) may be used.

FITTING COVERINGS

640 ADHESIVE FIXING GENERALLY:
- Adhesive should not be stored at temperatures below 5°C.
- Recommended minimum temperature of 14°C for all installation areas.
- Back of sheets to be cleaned prior to applying adhesive.
- Adhesive should be applied with the recommended notched trowel applicable to the adhesive selected.
- Apply firm even pressure with suitable roller to whole surface area of the panel as work proceeds, to ensure adequate adhesive transfer and good overall bond.

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- Use Altro double sided tape Ref A815 or A915 (for welded system) as support whilst adhesive cures.

641A ADHESIVE FIXING – BY ALTROFIX W139**:**
- Use AltroFix W139 (Ref: A814) two-part polyurethane adhesive spread with a 5mm square notched trowel (Ref: A860).
- On application immediately apply sheet to the wall.
- Support the panel on double sided tape (Ref: A815 or A915 or welded system) whilst adhesive cures (approx. 3-5 hours - full cure 24 hours).

641C ADHESIVE FIXING – BY ALTROFIX W157:
- NB. This adhesive is only suitable for porous surfaces, for non-porous surfaces refer to **AltroFix W139 / AltroFix W639**
- Apply **AltroFix W157** (Ref: A818) water based synthetic polymer adhesive to the back of the sheet using a 3mm deep x 5mm wide square notched trowel (Ref: A860/4).
- On application immediately apply sheet to the wall.
- Support the panel on double sided tape (Ref: A815 or A915 or welded system) whilst adhesive cures. (can be 24hours and upwards)
  NB. On completion, the installation should not be subject to an increase in ambient temperature to more than 30°C until the adhesive is fully cured. Full cure will be dependent on porosity of substrate.

641D ADHESIVE FIXING – BY ALTROFIX W639:
- Use **AltroFix W639** (Ref: A639/5KG) two-part non-hazardous MS polymer adhesive spread with a 4mm square notched trowel.
- On application immediately apply sheet to the wall.
- Support the panel on double sided tape (Ref: A815 or A915 or welded system) whilst adhesive cures (full cure 48 hours).

645 INSTALLATION OF INTERLOCKING TILES:
- Setting out – As manufacturer's recommendations.
- Use Altro sanitary sealant (Ref: A802 white, or A806 coloured A802) at all joints and internal corners
- Perimeter edges – As manufacturer's recommendations.

645A INSTALLATION OF HALF LAP INTERLOCKING TILES FOR WET AREAS:
- Always use Altro Tegulis half lap sheets in areas of high moisture or when sheet comes into direct contact with running water.
- Setting out – As manufacturer's recommendations.
- Use Altro sanitary sealant (Ref: A802 white, or A805 coloured) at all joints and internal corners
- Perimeter edges – As manufacturer's recommendations.

731 SEALANT**:**
- Manufacturer and reference: Altro sanitary sealant (Ref: A802 white or A806 coloured) contact Altro Limited, telephone +44(0)1462 707600, email enquiries@altro.com

740B EDGINGS/COVER STRIPS: ALTRO SANITARY SEALANT JOINT
- Form a flush joint using a 3-4mm bead of Altro sanitary sealant. (Ref: A802 white, or A806 coloured).
- Internal/external corners: butt jointed and sealed with Altro sanitary sealant, shower trim available for external corners.
- Vulnerable external corners are usually over-clad with stainless steel corner protectors, to a height of 1200mm.

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740C EDGINGS/COVER STRIPS: ACCESSORIES
- PVC shower corner trim (Ref: A953)
- High impact PVCu two-part start and edge trim (Ref: A833)
- High impact PVCu single part heavy duty start and edge trim (Ref: G833).

773 ABUTMENTS: GENERAL
- To window frame, door frames, architraves, ceiling & quarry tile - seal with Altro sanitary sealant (Ref: A802 white, or A806 coloured) 3-4mm width joint.
    - See Altro wall sheet detail drawings W1, W2 and WF3.

773A ABUTMENTS: TREATMENT TO SERVICE PREPARATIONS
- All holes to be cut to allow 3-4mm silicone seal around all penetrations. seal with Altro sanitary sealant (Ref: A802 white or A806 coloured).

773B ABUTMENTS: PVC FLOORING
- To PVC flooring with coved skirting - joint to be covered with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim).
    - Ask for Altro wall sheet detail drawing WF2.
- Alternatively use Altro concealed wall/floor transition strip with overlap detail (Ref G835 / 25) mechanically fixed or bonded to the wall with adhesive).
    - Ask for relevant Altro wall sheet detail drawing

773C ABUTMENTS: PVC FLOORING, SHOWER/WET AREAS
- To PVC flooring with coved skirting overlapped by 50mm with Altro Tegulis, close bottom of sheet with Altro sanitary sealant (Ref: A803 clear).
    - Ask for Altro wall sheet detail drawing WF4.

773D ABUTMENTS: RESIN FLOORING:
- To resin flooring with coved skirting, close bottom of sheet with single part high impact PVCu trim section (Ref: G834/25)
    - Ask for Altro wall sheet detail drawing WF6.
- Alternatively, close bottom of sheet with high impact PVCu transition strip (Ref: A832 two-part trim, or G832 single part trim) to resin cove upstand.
    - Ask for Altro wall sheet detail drawing WF5
- Alternatively cove resin skirting feather out to nothing overlap by minimum 50mm with Altro Tegulis seal out bottom edge of sheet with Altro clear sanitary sealant (Ref A803)

773E ABUTMENTS: TO SHOWER TRAY
- Use Altro Shower trim (Ref A918 bedded onto wall and shower tray with Altro Adhesive
    - See Drawing WS3.

773F ABUTMENTS: TO SHOWER TRAY WITH INTEGRAL UPSTAND.
- Apply Altro Tegulis over upstand ensuring sheet adhered to upstand leave 3mm gap between bottom of sheet and tray. seal with Altro Silicone sealant (REF A802, A803 or A806)

COMPLETION

810 CLEANING GENERALLY:
- Remove all scrap, dust and dirt. Carefully remove adhesive and other marks from coverings and adjacent surfaces, using approved cleaning agents and methods.
- When cleaning the Altro Tegulis surface, the temperature should not exceed 60 degrees Centigrade.

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- Do not use cleaning materials of an abrasive nature
    - Contact Altro for detailed cleaning instructions:
        - Telephone: +44(0)1462 707600
        - email : enquiries@altro.com
        - website : www.altro.com

821 FINISHING PVC WALL CLADDING:
- Protective film to be removed.
- When dry, apply Altro antistatic solution to all surfaces (Ref: A809).

870 PROTECTION:
- If required, tape appropriate protective material to sheet ensuring compliance with surface spread of flame, as per Building Regulations.
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880 WASTE RECYCLING: ALTRO RECOWALL™
- Clean, adhesive-free off-cuts to be removed from site and taken to an Altro Recowall collection points for recycling.
    - Contact Altro for further details of this scheme and the Recofloor flooring recycling scheme.
        - Telephone: +44(0)1462 707600
        - email : enquiries@altro.com
        - website : www.altro.com

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