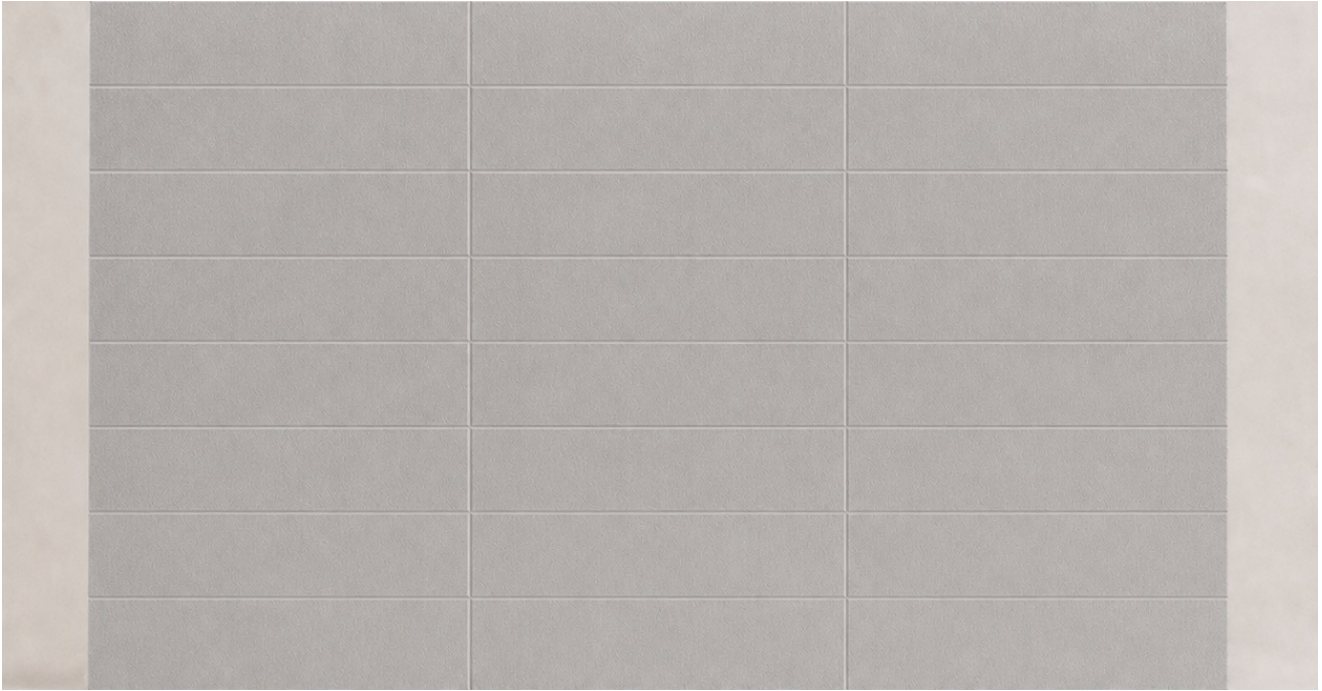




IMPACTPRO® CALYX

Technical Resource Pack

Technical data - installation - cleaning - specification - system components

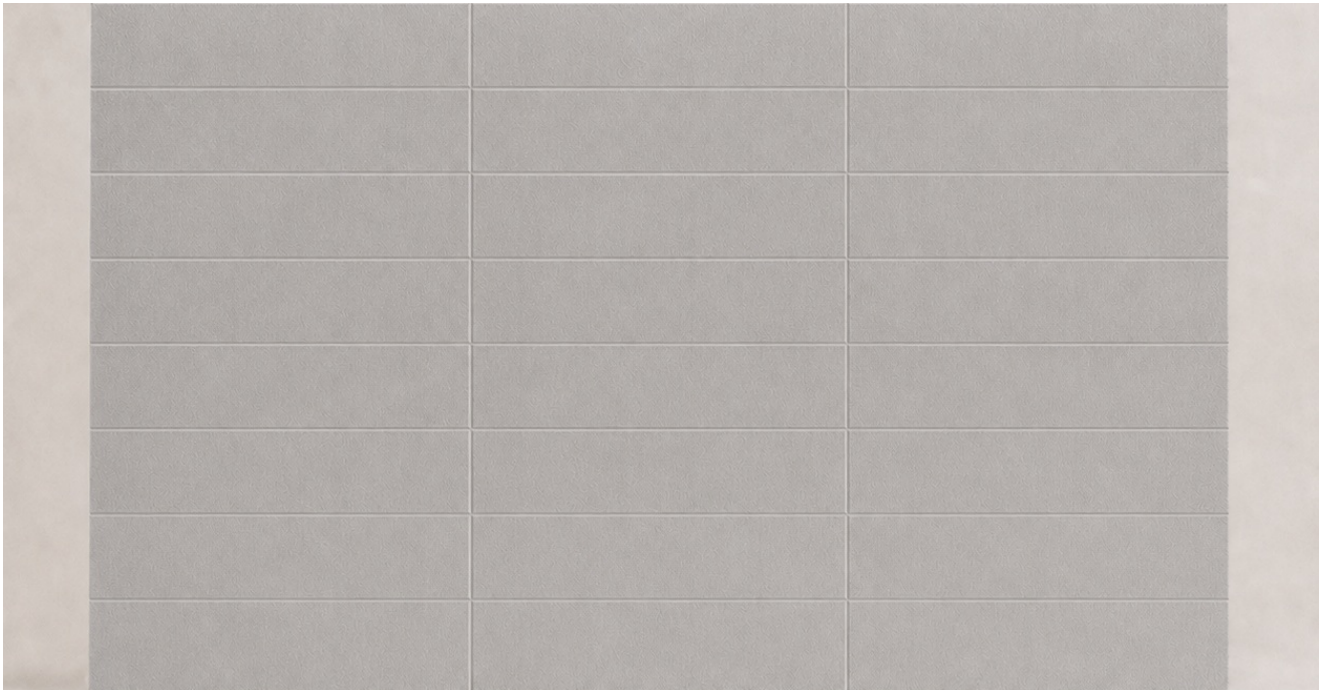
DOCUMENT	IMP-CX-TRP-001
REVISION	Rev A
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PACK CONTENTS

Document	Reference
Technical Data Sheet	IMP-CX-TDS-001
Installation Guide	IMP-CX-IG-001
Cleaning & Maintenance Guide	IMP-CX-CM-001
Specifier & Project Guide	IMP-CX-SPG-001
System Components & Jointing Guide	IMP-CX-SCJ-001

Document purpose

This pack consolidates IMPACTPRO® CALYX technical information for project submittals, installation, handover and maintenance. It is formatted for website download, tender submissions and O&M; documentation.



IMPACTPRO® CALYX

Tile-Effect Hygienic Wall Cladding

Technical Data Sheet - 2.5mm solid PVC-U decorative hygienic wall system

DOCUMENT	IMP-CX-TDS-001
REVISION	Rev A
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PRODUCT DEFINITION & TECHNICAL PERFORMANCE

Product definition

IMPACTPRO® CALYX is a decorative tile-effect hygienic wall cladding system manufactured from a single solid semi-rigid PVC-U sheet. The face is digitally printed, precision CNC engraved and protected by a clear antimicrobial matt hard coating to create a tiled appearance without separate ceramic tiles or conventional porous grout.

Parameter	Value	Details
Material	Solid semi-rigid PVC-U	Decorative hygienic wall-cladding sheet
Surface finish	Printed, precision engraved and clear matt hard coated	Continuous tile-effect face
Nominal thickness	2.5mm	Solid sheet construction
Standard sheet size	2440 x 1220mm	Approx. 2.98m ² nominal coverage
Standard colour	Mineral Grey	Alternative colours subject to project requirements
Pattern options	Stacked Metro, Herringbone, Hexagon, Chevron, KitKat	Precision engraved designs
Maximum service temperature	60°C	Interior service limit
Corner forming	Not thermoformable	Use compatible trims or approved corner details

Physical and mechanical properties

Property	Standard	Value
Weight	-	3300-3600 g/m ²
Density	ISO 1183	1.44 g/cm ³
Hardness (Shore D)	ISO 868	76
Notched impact resistance	ISO 179/1ea	9.5 kJ/m ²
Impact resistance	ISO 179/1eU	No break at +20°C, 0°C and -20°C
Flexural strength	ISO 178	78 MPa
Tensile strength	ISO 527	53 MPa
E-modulus of elasticity	ISO 527	2980 MPa
Compressive strength	DIN 53421	68 N/mm ²

THERMAL, MOISTURE & FIRE PERFORMANCE

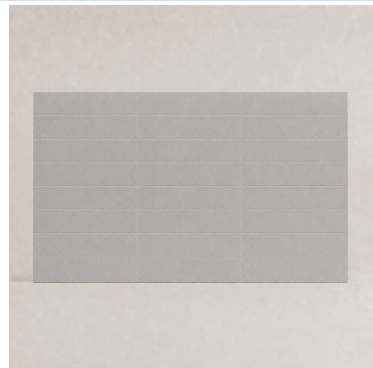
Property	Standard	Value
Maximum service temperature	-	60°C
Vicat softening point VST/B	ISO 306	73°C
Expansion coefficient	DIN 53752	0.07 mm/mK
Heat distortion temperature	ISO 75-2	60°C
Water absorption	ISO 62	<= 0.1%
Thermal conductivity	EN 12524	0.17 W/mK
U-value bonded to 100mm block wall	DIN 52612	1.8 W/m ² °C
Moisture vapour transmission rate	ASTM E96	<= 0.12 g/m ² /24hrs
Water vapour resistivity	ASTM E96	3.82 x 10 ⁻⁵ GN.s/kg.m
Reaction to fire	EN 13501-1	B-s3,d0

Installation requirements

- Fully bond sheets to a sound, dry, smooth, clean and level substrate.
- Use an approved compatible polyurethane or MS polymer wall-cladding adhesive.
- Apply a continuous adhesive bed with a 4mm notched trowel. Do not spot-bond.
- Dry-fit every sheet before bonding and maintain engraved-pattern alignment across joints.
- Provide 2mm movement allowance at perimeters, penetrations and abutments unless the approved project detail states otherwise.
- CALYX must not be thermoformed. Complete internal and external corners with compatible trims or approved project details.

DESIGNS, CLEANING & APPLICATIONS

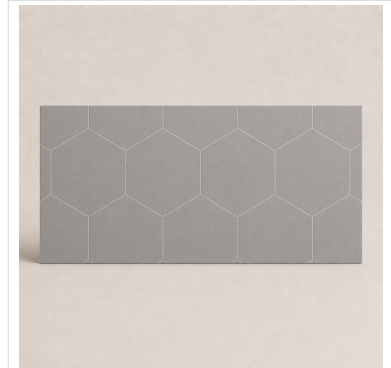
CALYX pattern collection



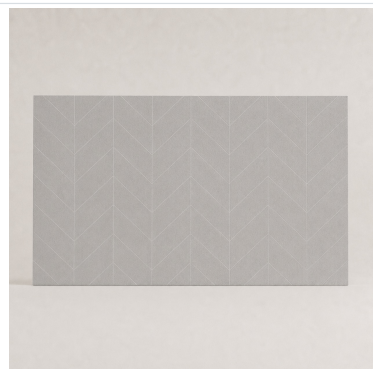
Stacked Metro



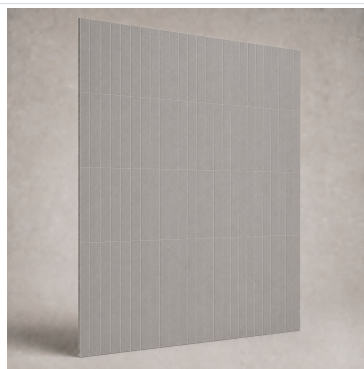
Herringbone



Hexagon



Chevron



KitKat

Cleaning

- Use a soft cloth or non-abrasive pad with a suitably diluted compatible neutral detergent.
- Do not use abrasive pads, wire wool, sharp scrapers or unapproved solvents.
- Do not clean above the maximum service temperature of 60°C.
- Remove spills and surface contamination promptly and rinse as required by the selected cleaning product.

Typical applications

- Bathrooms, shower rooms and washrooms.
- Changing, leisure and hospitality facilities.
- Healthcare, care and education environments.
- Reception, welfare and design-led commercial interiors.



IMPACTPRO® CALYX

Professional Installation Guide

Storage - substrate preparation - pattern setting - bonding - joints - corners - handover

DOCUMENT	IMP-CX-IG-001
REVISION	Rev A
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BEFORE INSTALLATION

Pre-installation checks

- Confirm sheet quantity, pattern, colour, orientation and condition before cutting.
- Store sheets completely flat, clean, dry and fully supported.
- Condition sheets in the installation area for at least 24 hours at 14°C to 22°C.
- Confirm walls are sound, dry, smooth, clean, level and free from wallpaper, loose coatings, grease and contamination.
- Establish horizontal and vertical datum lines before measuring or cutting.
- Plan the engraved pattern, sheet joints, trims, corners, penetrations and movement allowances before adhesive application.

Recommended tools

Setting / measuring	Cutting / finishing	Bonding / site
Laser or spirit level; tape measure; straightedge; square; datum marker	Fine-toothed saw or plastic-cutting blade; router where suitable; deburring tools	4mm notched trowel; laminate roller; cartridge gun; approved adhesive and sealant; PPE

SUBSTRATE PREPARATION

Substrate acceptance

- Substrate must be structurally sound and securely fixed.
- Surface must be dry and free from active moisture.
- Finish must be smooth, flat and level so the engraved pattern remains visually controlled.
- Remove wallpaper, loose paint, friable plaster, dust, grease and contamination.
- Correct defects, hollows, high spots and unsuitable repairs before installation.
- Identify services and penetrations before drilling or cutting.

Typical substrates

Substrate	Preparation
Plasterboard / dry lining	Securely fixed, joints finished, dry, smooth and dust-free.
Cement board	Securely fixed and prepared for selected adhesive.
Plywood / suitable boards	Rigidly fixed, joints and fixings flush; suitable for environment.
Existing ceramic tiles	Securely bonded, cleaned and degreased; make good missing or loose tiles.
Plaster / render	Fully cured, sound, smooth and dust-free.
Concrete / blockwork	True, clean, dry and free from laitance or contamination.

PLANNING, MEASURING & CUTTING

Pattern control

- Establish the finished visual layout before cutting sheets.
- Use datum lines to control tile courses and vertical breaks. Do not assume floors, ceilings or corners are square.
- Dry-position adjoining sheets and confirm engraved-pattern continuity before applying adhesive.
- Number sheets in installation order and retain orientation marks.
- Measure each wall position independently and identify every sheet before cutting.
- Provide 2mm movement allowance at floors, ceilings, corners, penetrations and abutments unless the approved detail states otherwise.

Cutting

- Support the full sheet and cut face-up with a fine-toothed saw or suitable plastic-cutting blade.
- Trial-cut an offcut first to confirm a clean edge.
- Remove burrs carefully without scratching or chipping the printed and hard-coated face.
- Use radiused internal corners to cut-outs where appropriate to reduce stress concentration.

ADHESIVE APPLICATION & SHEET FIXING

Full-bed bonding

- Use an approved compatible polyurethane or MS polymer wall-cladding adhesive.
- Apply adhesive evenly using a 4mm notched trowel. Spot-bonding is not suitable.
- Work only over an area that can be covered within the adhesive open time.
- Offer the sheet into position carefully and align it to the datum before the adhesive begins to grab.
- Roll the complete sheet surface from the centre towards the edges to create uniform transfer and remove trapped air.
- Re-check movement gaps, joint engagement, pattern alignment and contact around openings.
- Remove surplus adhesive or sealant before cure using the approved cleaning method.



JOINTS, CORNERS & PENETRATIONS

Jointing

- Use the approved project jointing method and dry-check every joint before bonding.
- Maintain pattern alignment across adjacent sheets.
- Where a sealed joint is specified, apply compatible sanitary sealant continuously.
- Engage or complete joints evenly without distorting the sheet or engraved detail.
- Inspect completed joints for continuity, cleanliness and alignment.

Internal and external corners

- CALYX must not be thermoformed.
- Use compatible corner trims or an approved project-specific corner detail.
- Plan cuts so visible pattern courses terminate cleanly at corner trims.
- Maintain the specified movement allowance and seal required interfaces continuously.

Penetrations and exposed edges

- Provide the required movement clearance around pipes, outlets and services.
- Complete exposed edges with compatible trims or approved sealed details.
- Do not leave raw cut edges, open gaps or unsealed voids in hygiene-critical locations.

CLEANING, PROTECTION & HANDOVER

Final clean

- Allow adhesive and sealant to cure in accordance with product instructions.
- Remove protective film and installation debris carefully.
- Use a soft cloth or non-abrasive pad with compatible neutral detergent.
- Do not use abrasive pads, wire wool, sharp scrapers or unapproved solvents.

Protection

- Protect completed walls from follow-on trades, impact, sharp objects and direct heat.
- Keep the area dry and within the documented service-temperature range.

Handover

- Check pattern alignment, joints, corners, trims, penetrations and perimeter seals.
- Remove adhesive and sealant contamination.
- Provide the Technical Data Sheet and Cleaning & Maintenance Guide within the O&M; information.



IMPACTPRO® CALYX

Cleaning & Maintenance Guide

Routine care for the printed, precision-engraved and hard-coated tile-effect surface

DOCUMENT	IMP-CX-CM-001
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CLEANING PROCEDURE

Initial clean after installation

- Allow adhesive and sealant to cure before cleaning.
- Remove protective film and loose installation debris carefully.
- Use a soft clean cloth or non-abrasive pad with a compatible neutral detergent.

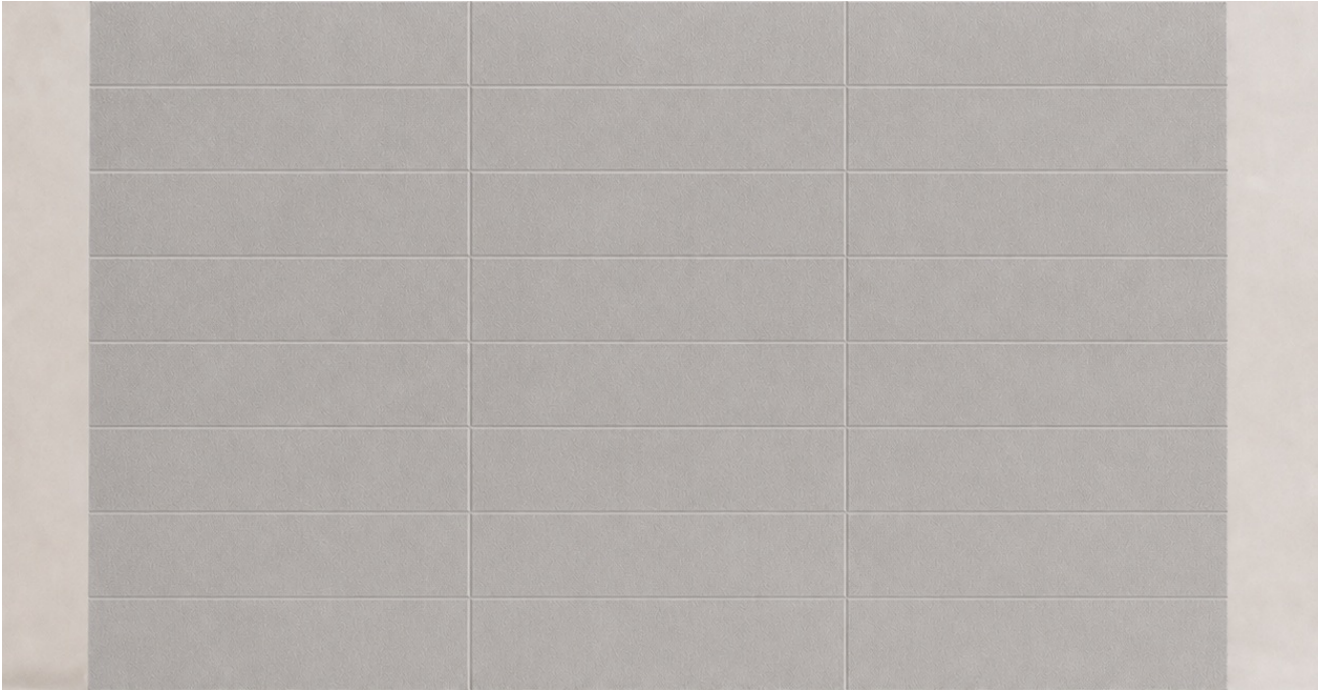
Routine cleaning

- Clean the entire decorated face, including engraved grout-effect lines.
- Use suitably diluted compatible neutral detergent and clean water as required.
- Do not exceed 60°C cleaning temperature.
- Increase cleaning frequency to suit use, traffic and local hygiene procedures.

Products and methods to avoid

- Abrasive pads or powders.
- Wire wool and sharp scrapers.
- Unapproved solvents or aggressive chemicals.
- Tools or methods that may scratch, polish or damage the matt hard-coated surface.

DO	DO NOT
Use soft, non-abrasive cleaning materials.	Use wire wool, scouring pads or abrasive powders.
Clean spills promptly.	Allow staining contamination to remain on the surface.
Clean engraved lines as part of the whole surface.	Scrape inside engraved detailing with sharp tools.
Keep cleaning temperatures within the 60°C service limit.	Apply direct steam or heat above the documented limit.



IMPACTPRO® CALYX

Specifier & Project Guide

Concise construction information for architects, contractors and project teams

DOCUMENT	IMP-CX-SPG-001
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PRODUCT SCHEDULE

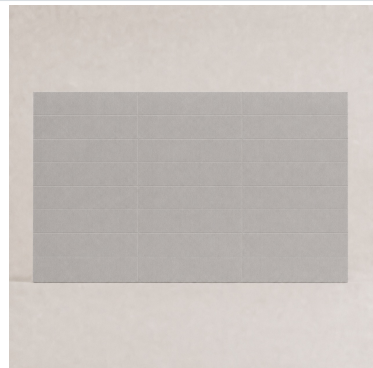
Item	Project information
Product	IMPACTPRO® CALYX tile-effect hygienic wall cladding
Material	Solid semi-rigid PVC-U
Nominal thickness	2.5mm
Standard sheet size	2440 x 1220mm
Nominal coverage	Approx. 2.98m ² per sheet
Finish	Digitally printed, precision CNC engraved, clear antimicrobial matt hard coat
Standard colour	Mineral Grey
Patterns	Stacked Metro, Herringbone, Hexagon, Chevron and KitKat
Reaction to fire	EN 13501-1 B-s3,d0
Maximum service temperature	60°C
Hardness	Shore D 76 to ISO 868
Adhesive	Approved compatible polyurethane or MS polymer adhesive; 4mm notched trowel
Corners	Compatible trims or approved corner details; do not thermoform
Movement allowance	2mm at perimeters, penetrations and abutments unless project detail states otherwise

Substrate and installation criteria

- Substrate to be sound, dry, smooth, clean and level.
- Condition sheets flat for at least 24 hours at 14°C to 22°C before installation.
- Plan the engraved pattern before cutting and maintain pattern alignment across joints.
- Fully bond sheets using a continuous adhesive bed. Spot bonding is not suitable.
- Use compatible trims or approved project details to internal and external corners.
- Complete joints, penetrations and interfaces to the required sealed hygienic finish.

DESIGN SELECTION & PROJECT HANDOVER

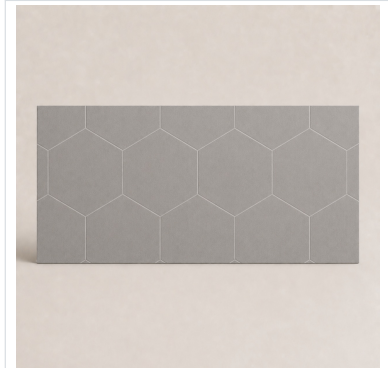
Pattern collection



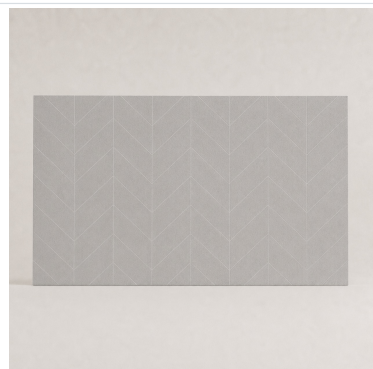
Stacked Metro



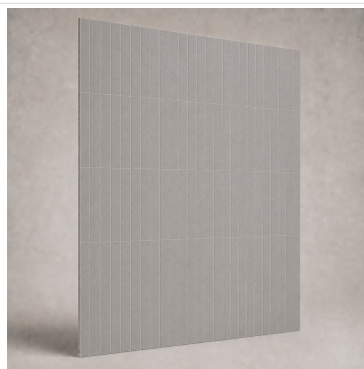
Herringbone



Hexagon



Chevron



KitKat

Recommended technical submittal

- Technical Data Sheet.
- Installation Guide.
- Cleaning & Maintenance Guide.
- System Components & Jointing Guide.
- Physical product / pattern sample.
- Adhesive and sealant technical information.

Quality requirements

- Confirm colour and pattern before manufacture and installation.
- Maintain consistent sheet orientation and engraved-course alignment.
- Complete trims, joints, corners and penetrations cleanly and continuously.
- Protect completed surfaces from follow-on trades until handover.



IMPACTPRO® CALYX

System Components & Jointing Guide

Pattern control, jointing, trims, corners and compatible system components

DOCUMENT	IMP-CX-SCJ-001
REVISION	Rev A
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PATTERN CONTROL & JOINTING

Pattern alignment

- Set out complete elevations before cutting so engraved tile courses remain deliberate and consistent.
- Use accurate horizontal and vertical datum lines.
- Dry-fit adjoining sheets and confirm orientation before adhesive is applied.
- Number sheets in installation order and retain orientation marks until handover.

Jointing method

- Use the approved project jointing method.
- Where sealed joints are required, use a compatible sanitary sealant continuously.
- Complete adjoining sheets evenly without forcing or distorting the panel.
- Maintain the 2mm movement allowance at specified perimeter and abutment details.
- Inspect the finished joint for pattern continuity, cleanliness and seal continuity.

CORNERS, EDGES & PENETRATIONS

Corners

- CALYX is not thermoformable.
- Complete internal and external corners using compatible trims or approved project details.
- Plan the pattern termination before cutting so engraved lines finish cleanly at the corner.
- Seal required interfaces continuously with compatible hygienic sealant.

Exposed edges

- Use compatible capping or finishing trims at exposed sheet edges.
- Do not leave raw cut edges in hygiene-critical locations.

Penetrations

- Allow project-specified movement around pipes, outlets and services.
- Seal completed penetrations continuously after the sheet is fixed.



COMPLETE SYSTEM & TECHNICAL SUPPORT

System components

Component	Requirement
CALYX sheet	2.5mm printed, precision-engraved and hard-coated solid PVC-U panel.
Adhesive	Approved compatible polyurethane or MS polymer wall-cladding adhesive; full-bed application with 4mm notch.
Joint sealant	Compatible hygienic sanitary sealant where sealed jointing is specified.
Corner trims	Compatible internal / external corner profiles or approved project-specific corner detail.
Edge trims	Compatible capping or finishing trims where exposed edges occur.
Cleaning products	Compatible neutral detergent and non-abrasive cleaning materials.

Technical support

For pattern selection, substrate suitability, adhesive compatibility, jointing, trims, corners, samples or project-specific detailing, contact Impact Group UK.

Contact	Details
Website	www.impactgroupuk.com
Email	sales@impactgroupuk.com
Telephone	0800 669 6306