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 www.chelsea-fusion.com

PRODUCT MANUAL

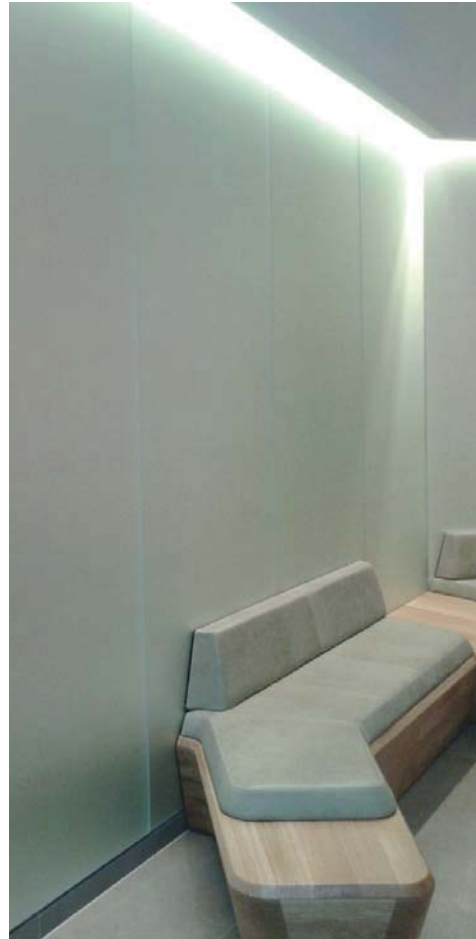
DIAMOND SYSTEM PRODUCTS

DIAMOND DÉCOR®



Colour coated or screen printed impact resistant glass panels

DIAMOND DÉCOR® SATINOVO



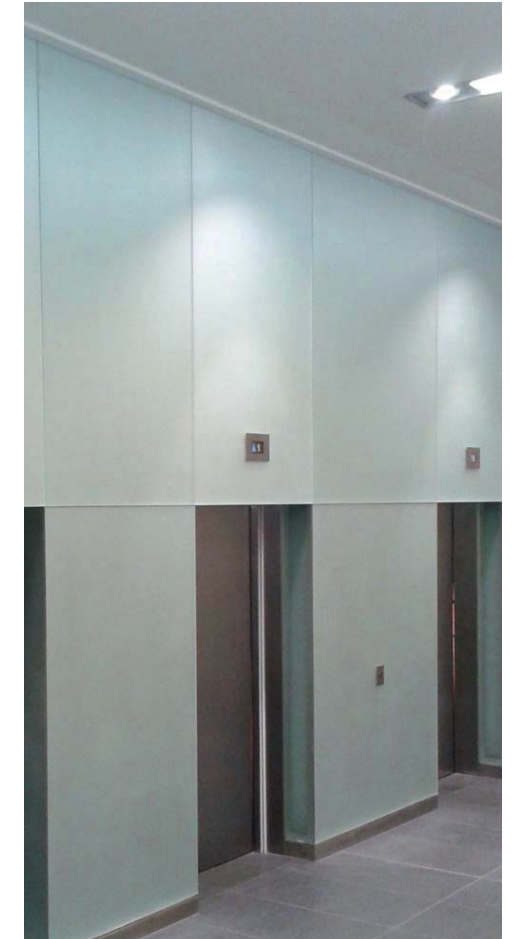
Colour coated impact resistant glass panels with satin etch finish to front face

DIAMOND MIRROR®



Impact resistant mirror

DIAMOND MIRROR® SATINOVO



Impact resistant mirror with satin etch finish to front face



PROPERTIES

TRANSPORTATION	A lightweight system - one-third lighter than conventional glass. Easy to handle and install.
STRENGTH	Significantly stronger than ordinary safety glass when installed. Reduced risk of breakage and personal injury.
AESTHETICS	High clarity reflective image with no distortion. Optical opacity with true colour representation.
SAFETY	Shatterproof: Impact BS 6206 Class A (Diamond 26®) Impact EN 12600 Class B (Diamond 8®) Impact Resistant: Hard Body Impact Human Body Impact Bomb Blast Fire Performance: BS 476 Part 6 Class O & Part 7 Class 1.

FEATURES

DIAMOND 8®	Suitable for 'over cladding' existing finishes or any smooth continuous substrate.
DIAMOND 26®	Self supporting system, suitable for areas where wood substrate is unavailable such as block and brickwork, timber/metal studs.
FIXING	Adhesive or mechanical fixing. No need for drilling which weakens glass and no unsightly fixing heads.
TRIMS	Complementary range of trims providing framed area and mechanical restraint. These are available in a range of polished/anodised/coloured finishes.

SAFETY ADVANTAGES

DIAMOND DÉCOR® & DIAMOND MIRROR®

IMPACT RESISTANT? Yes - Impact resistant to BS 6206 Class A (Diamond 26®)
Impact resistant to EN 12600 Class B (Diamond 8®)

SHATTERPROOF? Yes - The 4mm glass breaks safely and cleanly through the full thickness leaving no splinters or shards.

EXPLOSIVE BLAST RESISTANT? Yes - Breaks but remains in position after being subjected to measured explosive blast pressure.

FIRE RATED? Yes - Surface spread of flame BS476 Part 7 Class 1 / Fire propagation BS476 Part 6 Index 1 / Combined Class O fire rating

FIXING Our products can be fixed using adhesive bonding only (mechanical restraints may be recommended subject to application).

WEIGHT 11/11.4 kg per m² - One third lighter than conventional 6mm safety backed glass.

LEAD TIME The lead time for our product is considerably less than toughened glass products. Panels can be cut and manufactured quickly to suit site requirements as there is no need to go through the time consuming toughening process.

ADVANTAGES OVER TOUGHENED GLASS Our glass products can be cut and supplied to finer tolerances than toughened glass.

No risk of spontaneous explosive failure due to nickel sulphide inclusions.

Replacement panels if required can be supplied quickly.



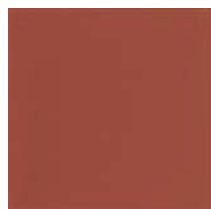




PRODUCT REFERENCE	DIAMOND DECOR® 8	DIAMOND DECOR® 26
FACE MATERIAL	4mm colour coated low iron (crystal clear) or float glass (slight green tint)	4mm colour coated low iron (crystal clear) or float glass (slight green tint)
CORE MATERIAL	N/A	Impact resistant layer from 2mm expanded polyether polymer
BACK MATERIAL	Impact resistant layer from 4mm expanded polyether polymer	20mm (nominal) thick lightweight composite board obviating the need for a smooth continuous substrate
NOMINAL THICKNESS	8mm	26mm
BACKGROUND	Smooth continuous substrate	Block & brickwork, timber/metal studs
EDGE TREATMENT	Polished all round	Polished all round
WEIGHT	10kg per m ² (nominal)	11.4kg per m ² (nominal)
MAXIMUM PANEL SIZE	3000mm x 1200mm	3000mm x 1150mm
SAFETY	Shatterproof: Impact resistant to BS EN 12600 Fire: BS 476 Part 6 & 7 Class 1 (see Test Data Summary Sheet)	Shatterproof: Impact resistant to BS 6206 Fire: BS 476 Part 6 & 7 Class 1 (see Test Data Summary Sheet)
JOINT TREATMENT	Arrised butt vertical joint, bright polished anodized aluminium 'H' section trims to horizontal joints if required - refer to Product Manual or Chelsea Artisans for recommendations.	Arrised butt vertical joint, bright polished anodized aluminium 'H' section trims to horizontal joints if required - refer to Product Manual or Chelsea Artisans for recommendations.
FIXING METHOD	Adhesive and/or bright polished anodized aluminium 'J' section trims - refer to the Product Manual, Advice Manual or Chelsea Artisans for recommendations.	Adhesive and/or bright polished anodized aluminium 'J' section trims - refer to the Product Manual, Advice Manual or Chelsea Artisans for recommendations.
ACCESSORIES	Purpose made bright polished anodized aluminium 'J' section trims to perimeter and 'H' section trims to horizontal joints.	Purpose made bright polished anodized aluminium 'J' section trims to perimeter and 'H' section trims to horizontal joints.
PROCESSING OPTIONS	Factory cut outs to accommodate control panels, ironmongery etc. Site cutting possible.	Factory cut outs to accommodate control panels, ironmongery etc. Site cutting possible.
COLOURS	Please see Diamond Décor® Colour Guide for options.	Please see Diamond Décor® Colour Guide for options.

STANDARD DIAMOND DÉCOR® COLOURS

BRIGHTS



OXIDE RED



ORANGE BROWN



TRAFFIC YELLOW



LIME GREEN



MINT GREEN



DISTANT BLUE



TOMATO RED



SALMON ORANGE



LEMON YELLOW



NEON GREEN



TURQUOISE BLUE



PIGEON BLUE



TRAFFIC RED



PASTEL ORANGE



GREEN BEIGE



YELLOW GREEN



DUCK EGG



LILAC



TANGERINE



DAFFODIL YELLOW



MOSS GREEN



PASTEL GREEN



PASTEL BLUE



PURPLE

Standard samples available. Bespoke colours available through our colour matching service to RAL, Dulux Trade & Pantone references.

Also available in toughened glass solutions and other glass thicknesses.

STANDARD DIAMOND DÉCOR® COLOURS

PASTELS



BURNT ROSE



PEACH



CARAMEL BEIGE



LIGHT IVORY



VANILLA



LIGHT GREEN



AQUA



WHITE ALUMINIUM

DARKS



WINE RED



CHOCOLATE



OLIVE GREEN



GENITIAN BLUE



TERRA BROWN



COFFEE



AQUA-FRENCH BLUE



ULTRAMARINE

MONOCHROMES



JET BLACK



BLUE GREY



DOVE



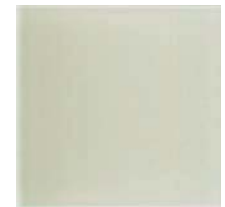
WHITE 9010



SLATE



LIGHT GREY



STONE



ULTRAWHITE

Standard samples available. Bespoke colours available through our colour matching service to RAL, Dulux Trade & Pantone references.

Also available in toughened glass solutions and other glass thicknesses.





	DIAMOND MIRROR® 8	DIAMOND MIRROR® 26
FACE MATERIAL	4mm silvered glass (tints available)	4mm silvered glass (tints available)
CORE MATERIAL	N/A	Impact resistant layer from 2mm expanded polyether polymer
BACK MATERIAL	Impact resistant layer from 4mm expanded polyether polymer	20mm (nominal) thick lightweight composite board obviating the need for a smooth continuous substrate
NOMINAL THICKNESS	8mm	26mm
BACKGROUND	Smooth continuous substrate	Block & brickwork, timber/metal studs
EDGE TREATMENT	Polished all round	Polished all round
WEIGHT	10kg per m ² (nominal)	11.4kg per m ² (nominal)
MAXIMUM PANEL SIZE	3000mm x 1200mm	3000mm x 1150mm
SAFETY	Shatterproof: Impact resistant to BS EN 12600 Fire: BS 476 Part 6 & 7 Class 1 (see Test Data Summary Sheet)	Shatterproof: Impact resistant to BS 6206 Fire: BS 476 Part 6 & 7 Class 1 (see Test Data Summary Sheet)
JOINT TREATMENT	Arrised butt vertical joint, bright polished anodized aluminium 'H' section trims to horizontal joints if required - refer to Product Manual or Chelsea Artisans for recommendations.	Arrised butt vertical joint, bright polished anodized aluminium 'H' section trims to horizontal joints if required - refer to Product Manual or Chelsea Artisans for recommendations.
FIXING METHOD	Adhesive and/or bright polished anodized aluminium 'J' section trims - refer to the Product Manual, Advice Manual or Chelsea Artisans for recommendations.	Adhesive and/or bright polished anodized aluminium 'J' section trims - refer to the Product Manual, Advice Manual or Chelsea Artisans for recommendations.
ACCESSORIES	Purpose made bright polished anodized aluminium 'J' section trims to perimeter and 'H' section trims to horizontal joints.	Purpose made bright polished anodized aluminium 'J' section trims to perimeter and 'H' section trims to horizontal joints.
PROCESSING OPTIONS	Factory cut outs to accommodate control panels, ironmongery etc. Site cutting possible.	Factory cut outs to accommodate control panels, ironmongery etc. Site cutting possible.
COLOURS	Please see Diamond Mirror® Colour Guide for options.	Please see Diamond Mirror® Colour Guide for options.

STANDARD MIRROR COLOURS

DIAMOND MIRROR®



CLEAR SILVER



GREY TINT



BRONZE TINT



ANTIQUÉ SILVER



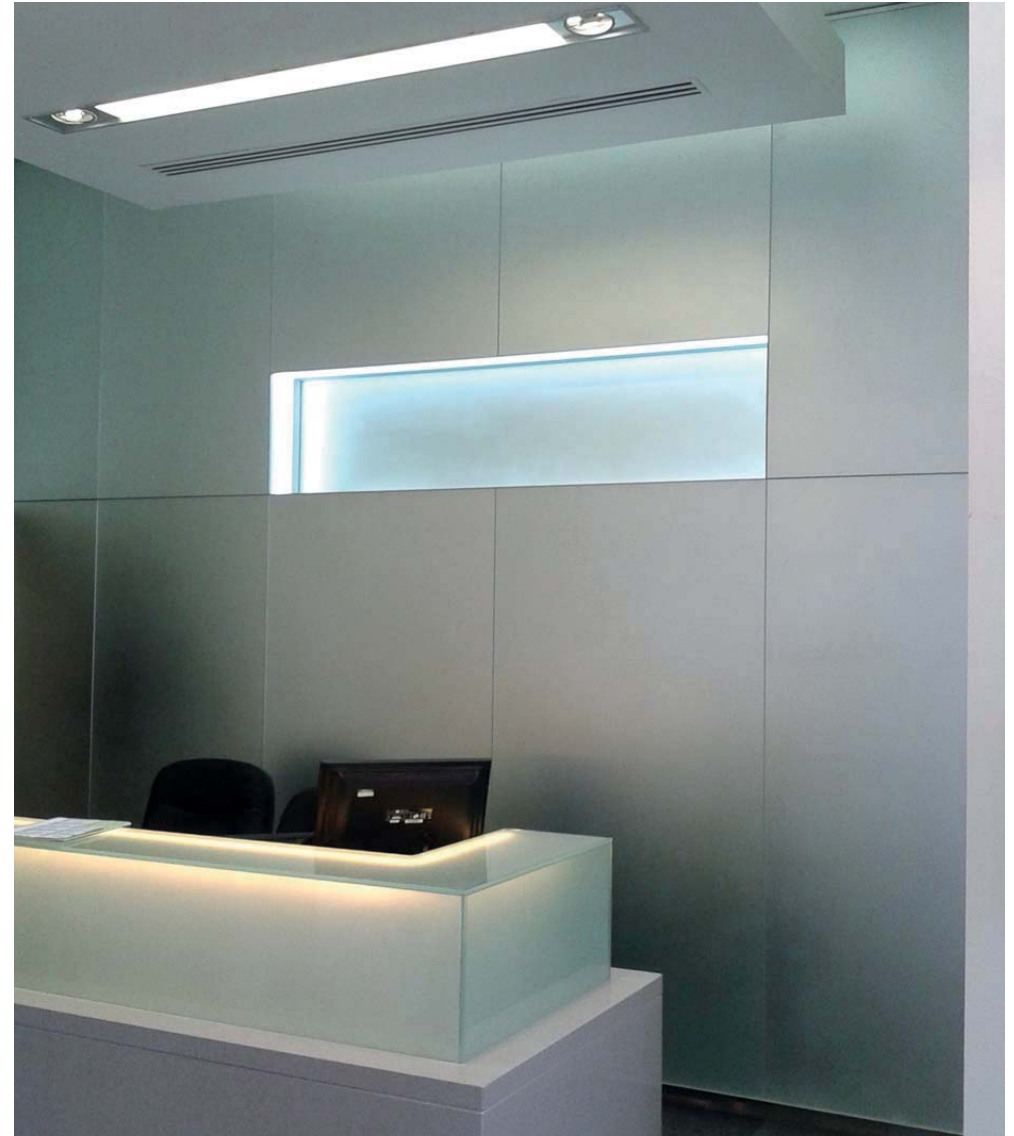
ANTIQUÉ BRONZE

Standard samples available. Additional mirror tints may be available subject to quantity and availability.





PRODUCT REFERENCE	DIAMOND DÉCOR 8® SATINOVO	DIAMOND DÉCOR 26® SATINOVO
FACE MATERIAL	4mm colour coated low iron (crystal clear) or float glass (slight green tint) with satin etch to front face	4mm colour coated low iron (crystal clear) or float glass (slight green tint) with satin etch to front face
CORE MATERIAL	N/A	Impact resistant layer from 2mm expanded polyether polymer
BACK MATERIAL	Impact resistant layer from 4mm expanded polyether polymer	20mm (nominal) thick lightweight composite board obviating the need for a smooth continuous substrate
NOMINAL THICKNESS	8mm	26mm
BACKGROUND	Smooth continuous substrate	Block & brickwork, timber/metal studs
EDGE TREATMENT	Polished all round	Polished all round
WEIGHT	10kg per m ² (nominal)	11.4kg per m ² (nominal)
MAXIMUM PANEL SIZE	3000mm x 1200mm	3000mm x 1150mm
SAFETY	Shatterproof: Impact resistant to BS EN 12600 Fire: BS 476 Part 6 & 7 Class 1 (see Test Data Summary Sheet)	Shatterproof: Impact resistant to BS 6206 Fire: BS 476 Part 6 & 7 Class 1 (see Test Data Summary Sheet)
JOINT TREATMENT	Arised butt vertical joint, bright polished anodized aluminium 'H' section trims to horizontal joints if required - refer to Product Manual or Chelsea Artisans for recommendations.	Arised butt vertical joint, bright polished anodized aluminium 'H' section trims to horizontal joints if required - refer to Product Manual or Chelsea Artisans for recommendations.
FIXING METHOD	Adhesive and/or bright polished anodized aluminium 'J' section trims - refer to the Product Manual, Advice Manual or Chelsea Artisans for recommendations.	Adhesive and/or bright polished anodized aluminium 'J' section trims - refer to the Product Manual, Advice Manual or Chelsea Artisans for recommendations.
ACCESSORIES	Purpose made bright polished anodized aluminium 'J' section trims to perimeter and 'H' section trims to horizontal joints.	Purpose made bright polished anodized aluminium 'J' section trims to perimeter and 'H' section trims to horizontal joints.
PROCESSING OPTIONS	Factory cut outs to accommodate control panels, ironmongery etc. Site cutting possible.	Factory cut outs to accommodate control panels, ironmongery etc. Site cutting possible.
COLOURS	Please see Diamond Decor® Colour Guide for options.	Please see Diamond Decor® Colour Guide for options.

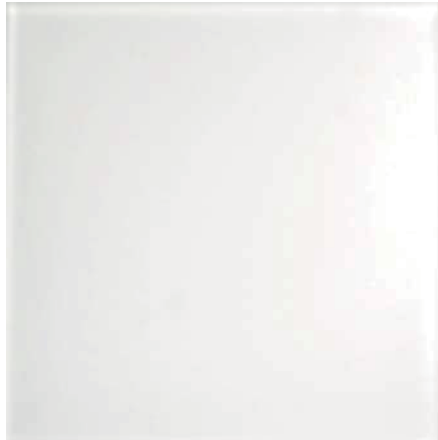




	DIAMOND MIRROR® 8 SATINOVO	DIAMOND MIRROR® 26 SATINOVO
FACE MATERIAL	4mm silvered glass (tints available) with satin etch finish to front face	4mm silvered glass (tints available) with satin etch finish to front face
CORE MATERIAL	N/A	Impact resistant layer from 2mm expanded polyether polymer
BACK MATERIAL	Impact resistant layer from 4mm expanded polyether polymer	20mm (nominal) thick lightweight composite board obviating the need for smooth a continuous substrate
NOMINAL THICKNESS	8mm	26mm
BACKGROUND	Smooth continuous substrate	Block & brickwork, timber/metal studs
EDGE TREATMENT	Polished all round	Polished all round
WEIGHT	10kg per m ² (nominal)	11.4kg per m ² (nominal)
MAXIMUM PANEL SIZE	3000mm x 1200mm	3000mm x 1150mm
SAFETY	Shatterproof: Impact resistant to BS EN 12600 Fire: BS 476 Part 6 & 7 Class 1 (see Test Data Summary Sheet)	Shatterproof: Impact resistant to BS 6206 Fire: BS 476 Part 6 & 7 Class 1 (see Test Data Summary Sheet)
JOINT TREATMENT	Arrised butt vertical joint, bright polished anodized aluminium 'H' section trims to horizontal joints if required - refer to Product Manual or Chelsea Artisans for recommendations.	Arrised butt vertical joint, bright polished anodized aluminium 'H' section trims to horizontal joints if required - refer to Product Manual or Chelsea Artisans for recommendations.
FIXING METHOD	Adhesive and/or bright polished anodized aluminium 'J' section trims - refer to the Product Manual, Advice Manual or Chelsea Artisans for recommendations.	Adhesive and/or bright polished anodized aluminium 'J' section trims - refer to the Product Manual, Advice Manual or Chelsea Artisans for recommendations.
ACCESSORIES	Purpose made bright polished anodized aluminium 'J' section trims to perimeter and 'H' section trims to horizontal joints.	Purpose made bright polished anodized aluminium 'J' section trims to perimeter and 'H' section trims to horizontal joints.
PROCESSING OPTIONS	Factory cut outs to accommodate control panels, ironmongery etc. Site cutting possible.	Factory cut outs to accommodate control panels, ironmongery etc. Site cutting possible.
COLOURS	Please see Diamond Satinovo Colour Guide for options.	Please see Diamond Satinovo Colour Guide for options.

STANDARD SATINOVO COLOURS

DIAMOND DÉCOR® SATINOVO



ULTRAWHITE

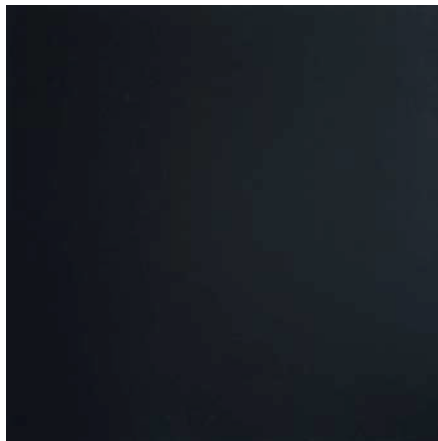
DIAMOND MIRROR® SATINOVO



CLEAR SILVER



GREY



BLACK



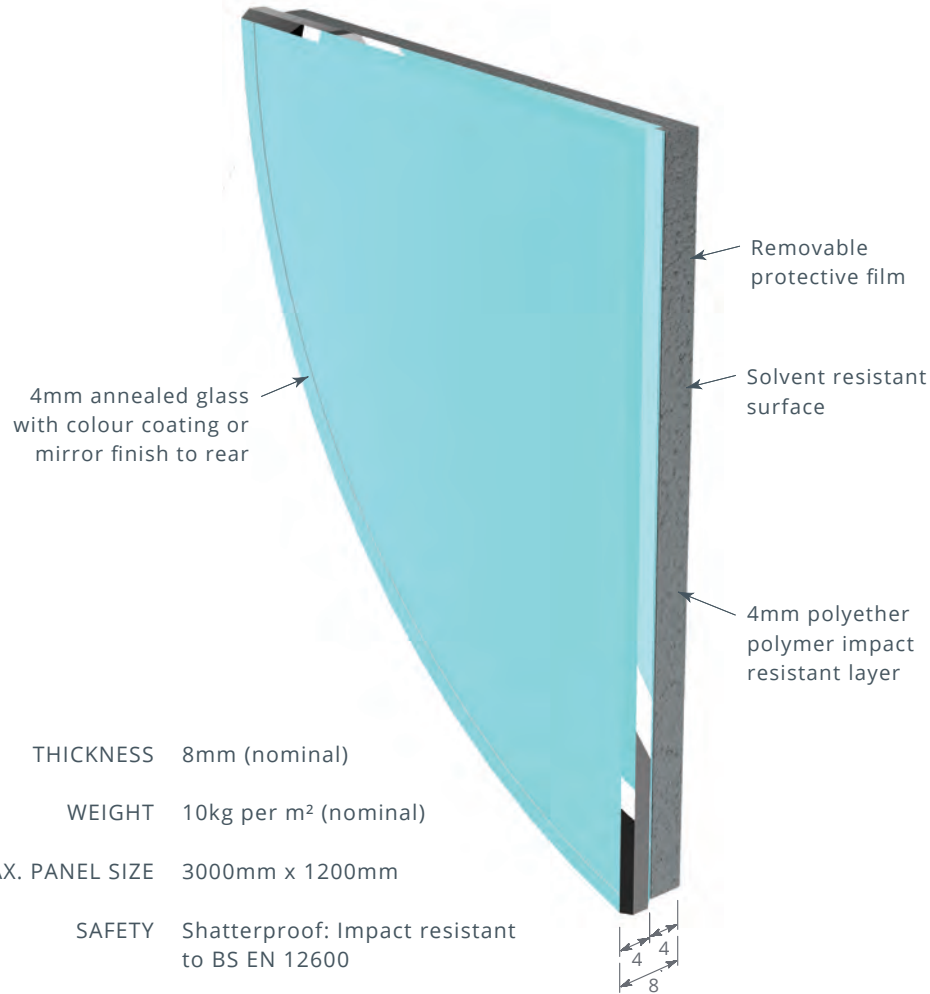
BRONZE

Standard samples available. Bespoke Diamond Décor® Satinovo colours available through our colour matching service to RAL, Dulux Trade & Pantone references.

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PRODUCT COMPOSITION

DIAMOND DÉCOR® 8 / DIAMOND MIRROR® 8



THICKNESS 8mm (nominal)

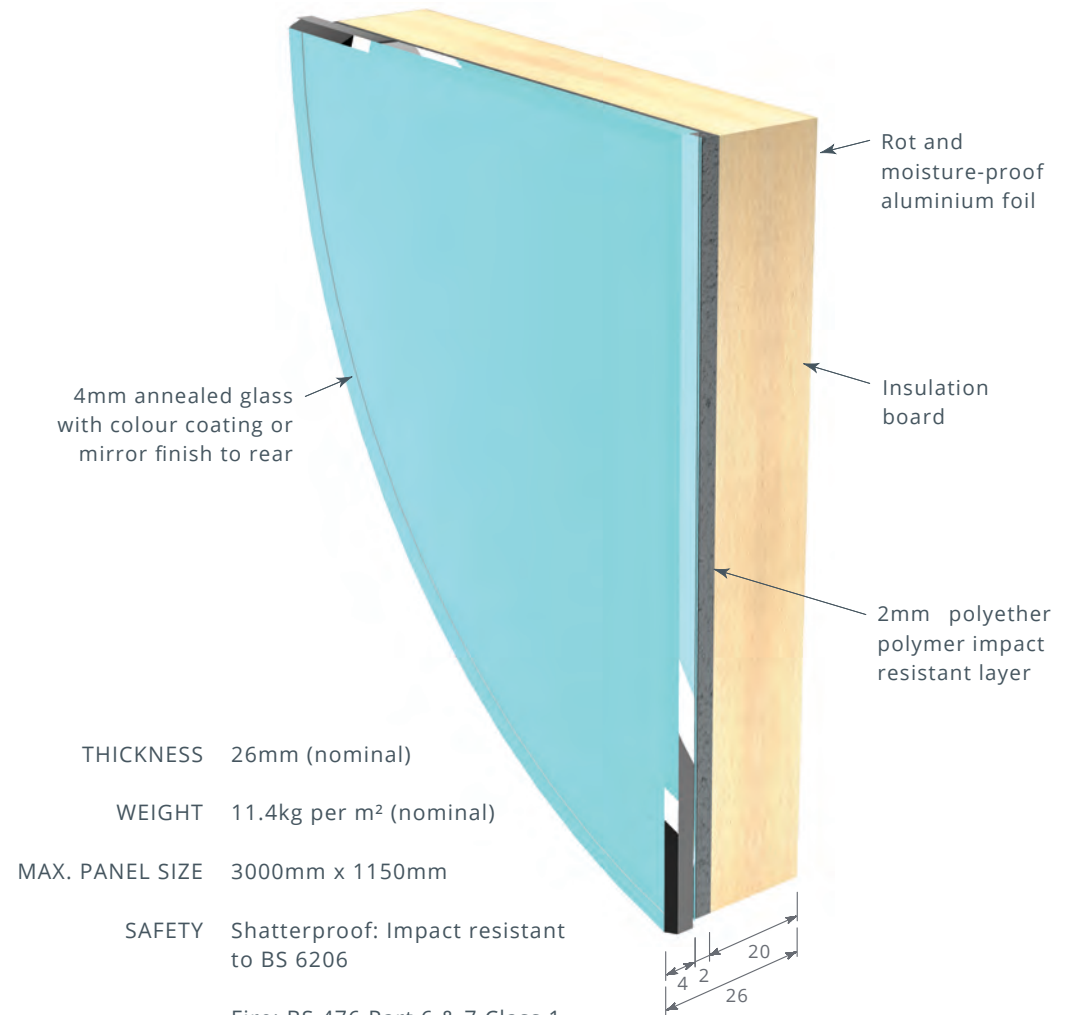
WEIGHT 10kg per m² (nominal)

MAX. PANEL SIZE 3000mm x 1200mm

SAFETY Shatterproof: Impact resistant to BS EN 12600

Fire: BS 476 Part 6 & 7 Class 1 (see Test Data Summary Sheet)

DIAMOND DÉCOR® 26 / DIAMOND MIRROR® 26



THICKNESS 26mm (nominal)

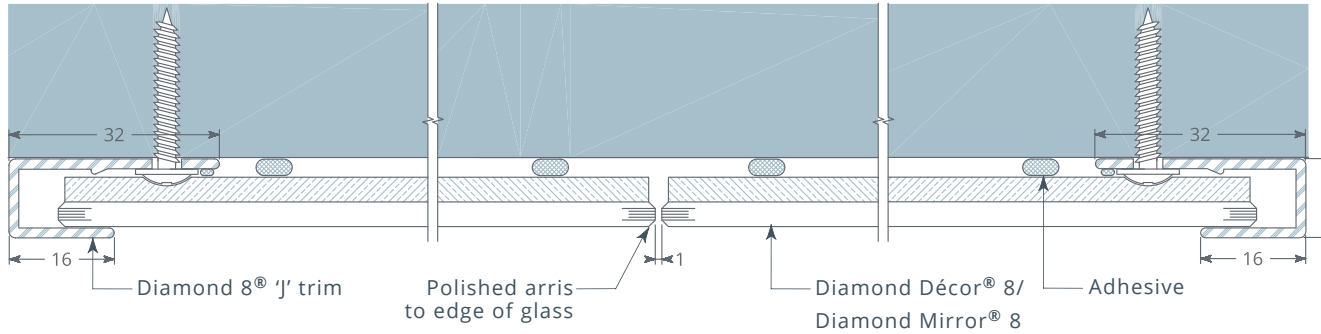
WEIGHT 11.4kg per m² (nominal)

MAX. PANEL SIZE 3000mm x 1150mm

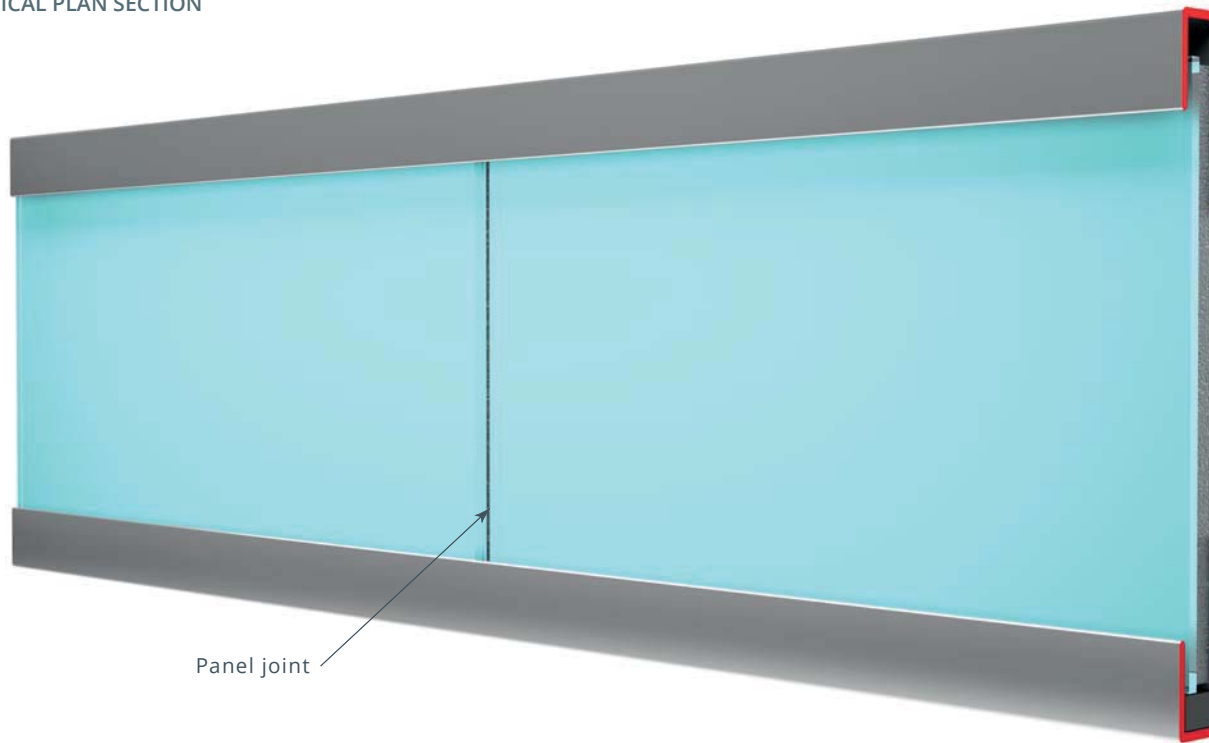
SAFETY Shatterproof: Impact resistant to BS 6206

Fire: BS 476 Part 6 & 7 Class 1 (see Test Data Summary Sheet)

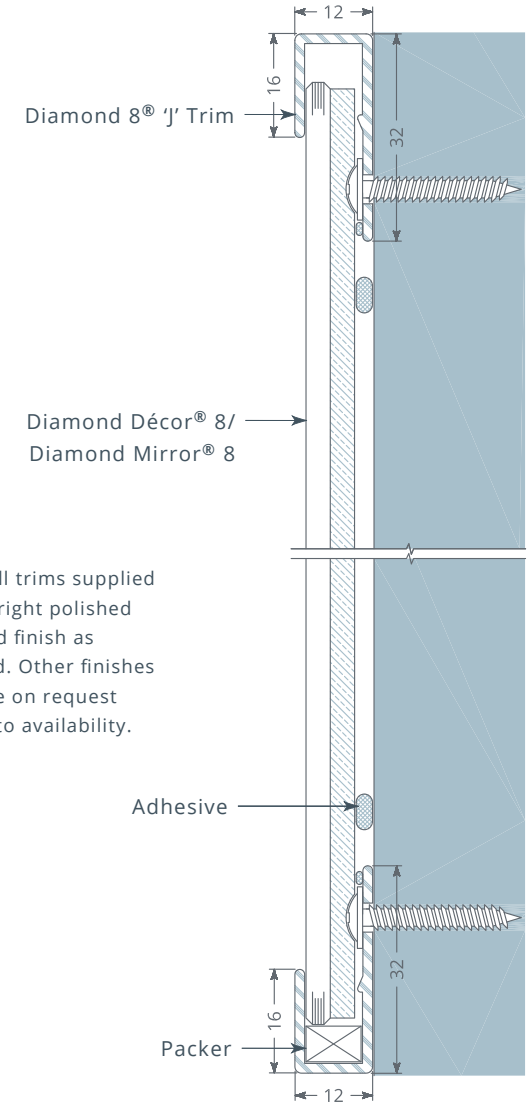
DIAMOND 8® STANDARD 'J' TRIM



TYPICAL PLAN SECTION



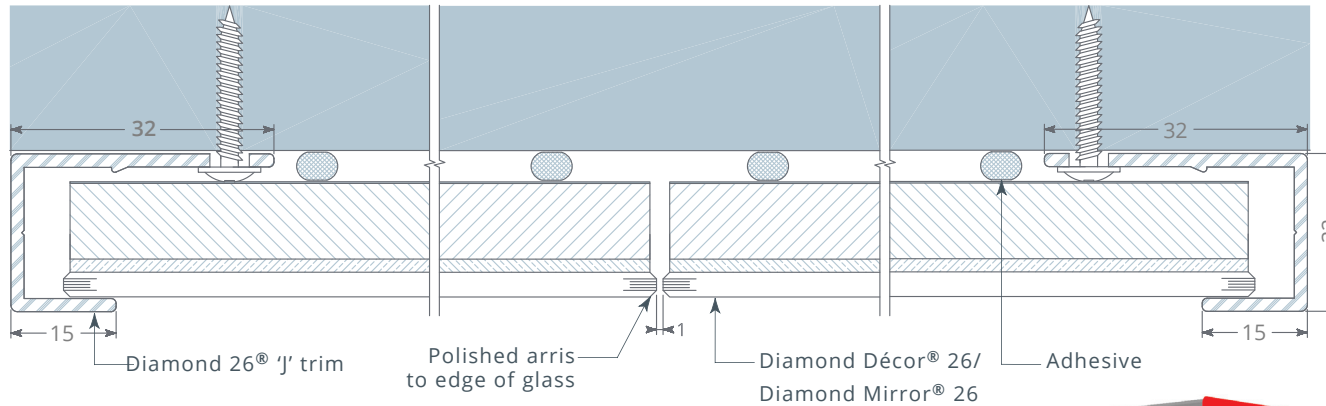
RENDERED VISUAL



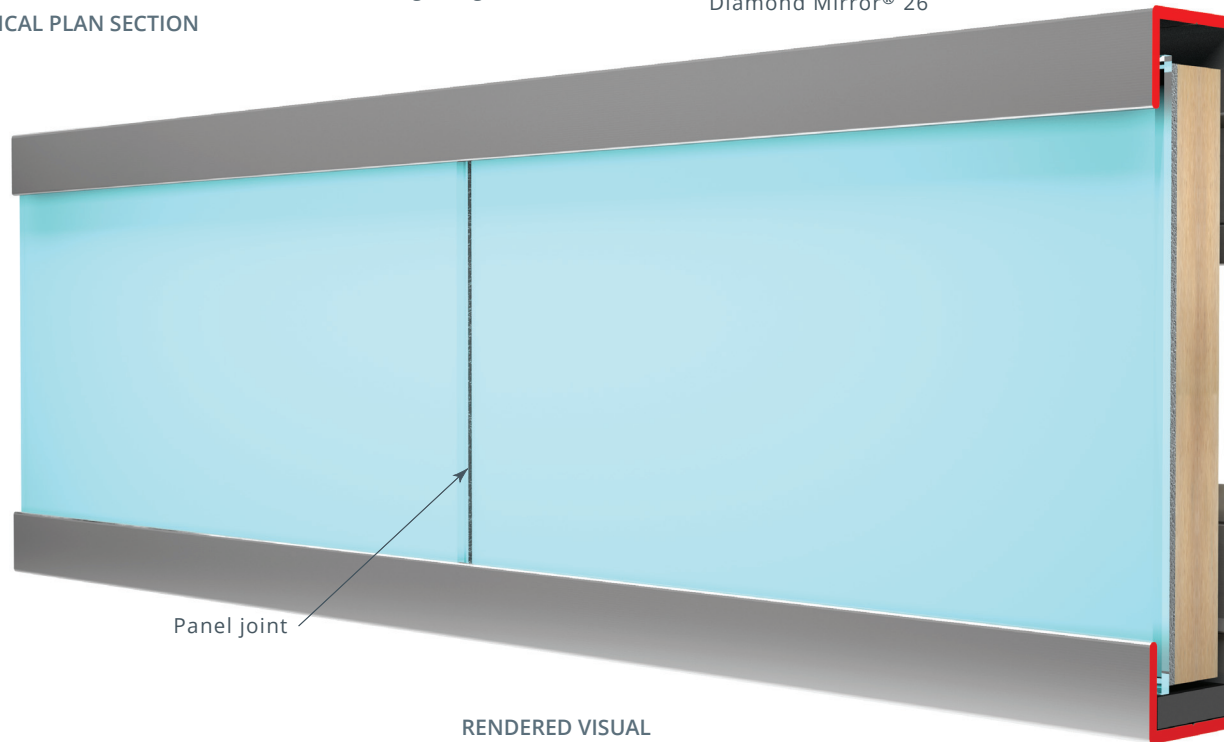
NOTE: All trims supplied with a bright polished anodized finish as standard. Other finishes available on request subject to availability.

TYPICAL SECTION

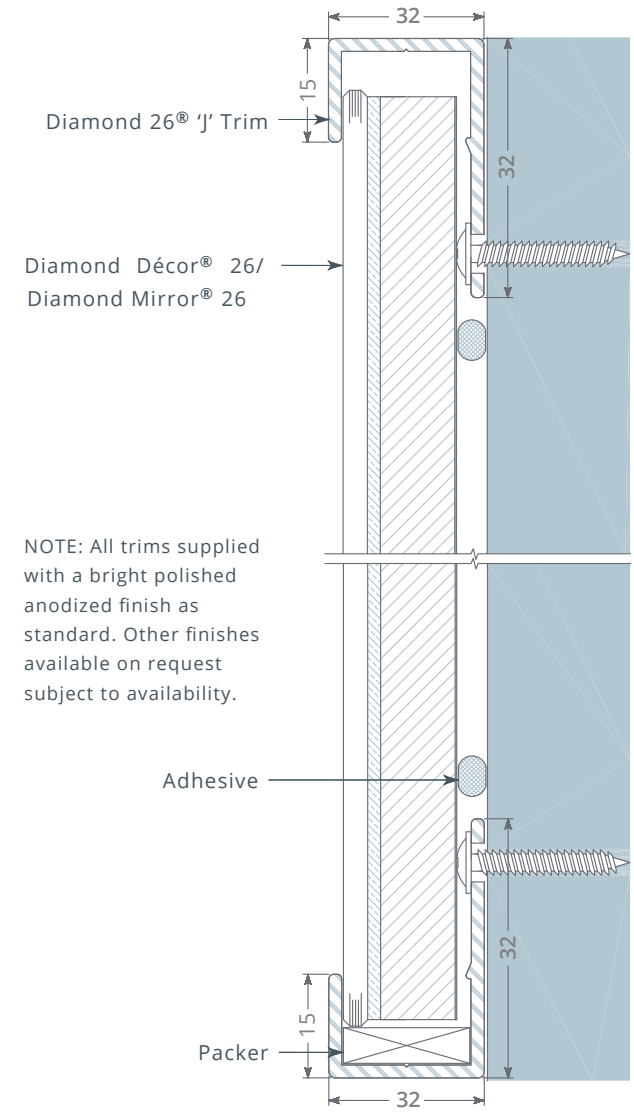
DIAMOND 26® STANDARD 'J' TRIM



TYPICAL PLAN SECTION



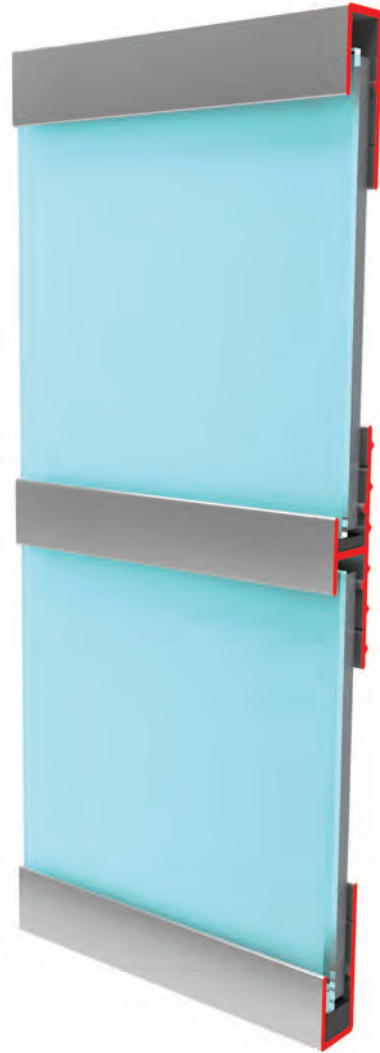
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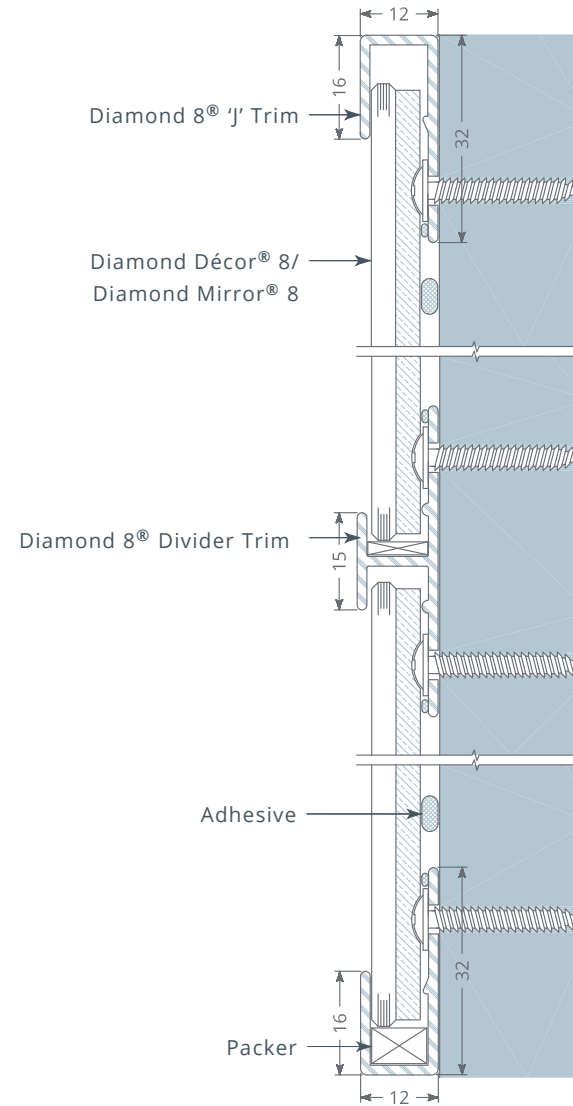
NOTE: All trims supplied with a bright polished anodized finish as standard. Other finishes available on request subject to availability.

TYPICAL SECTION

DIAMOND 8® DIVIDER TRIM



RENDERED VISUAL

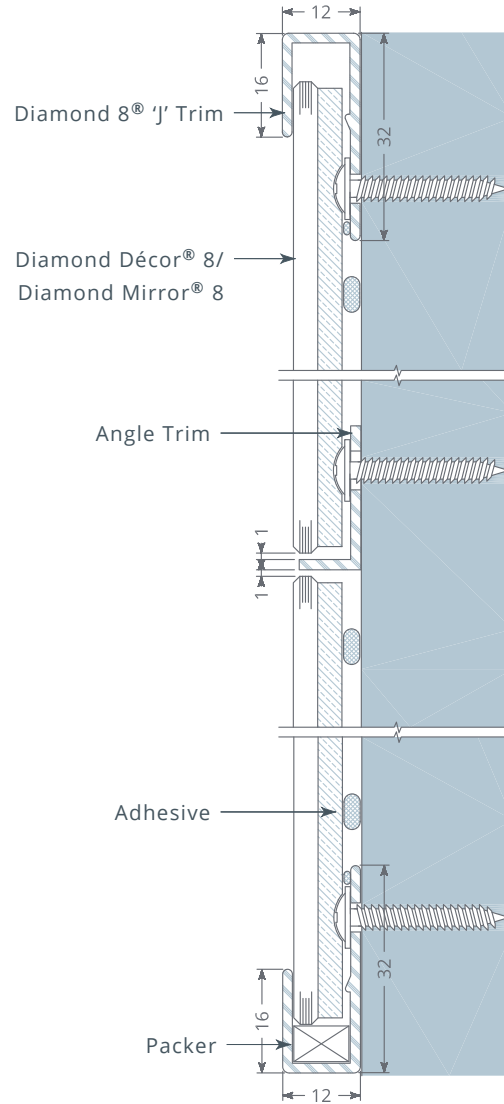


TYPICAL SECTION

DIAMOND 8® ANGLE TRIM

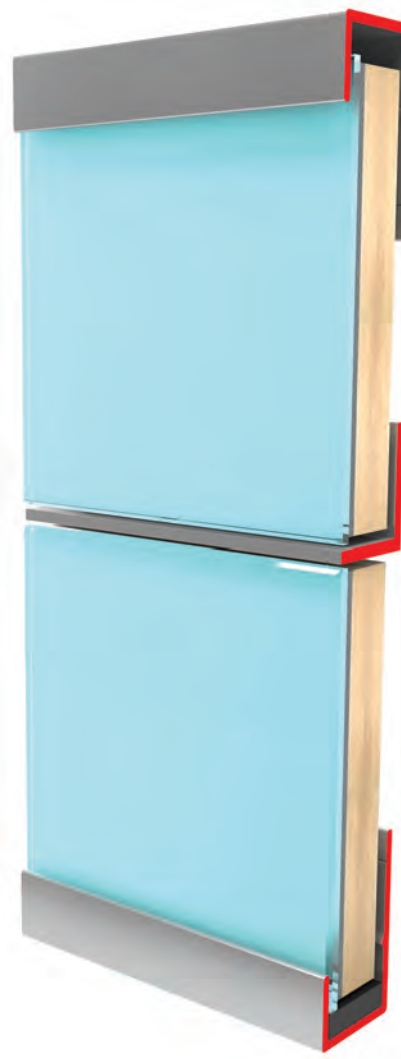


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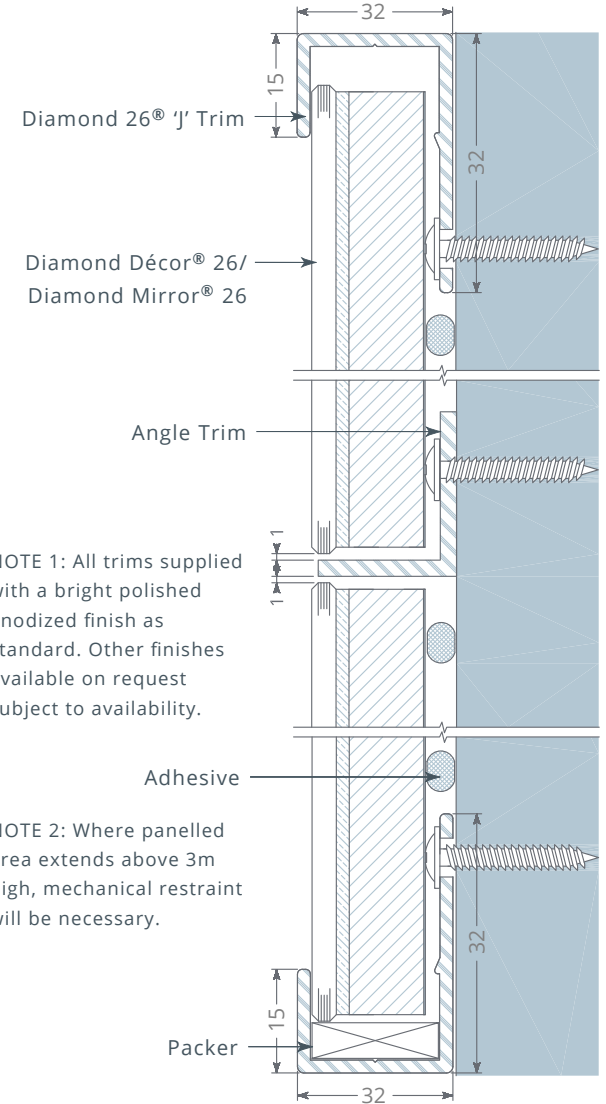


TYPICAL SECTION

DIAMOND 26® ANGLE TRIM



RENDERED VISUAL

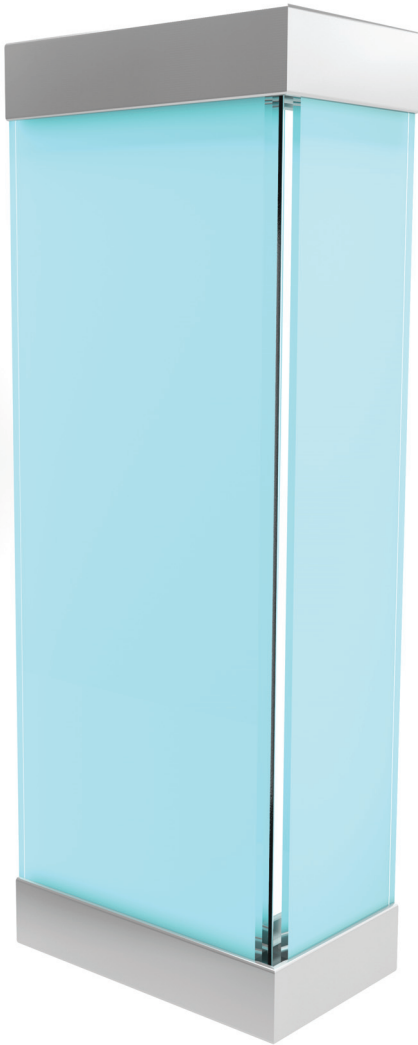


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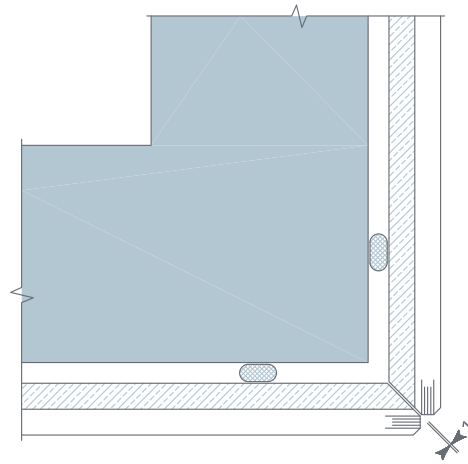
NOTE 1: All trims supplied with a bright polished anodized finish as standard. Other finishes available on request subject to availability.

NOTE 2: Where panelled area extends above 3m high, mechanical restraint will be necessary.

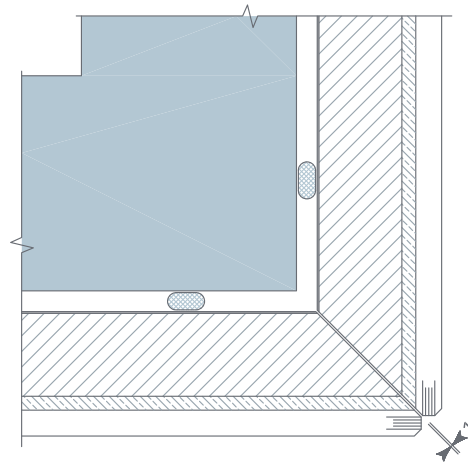
EXTERNAL CORNER JOINT



RENDERED VISUAL

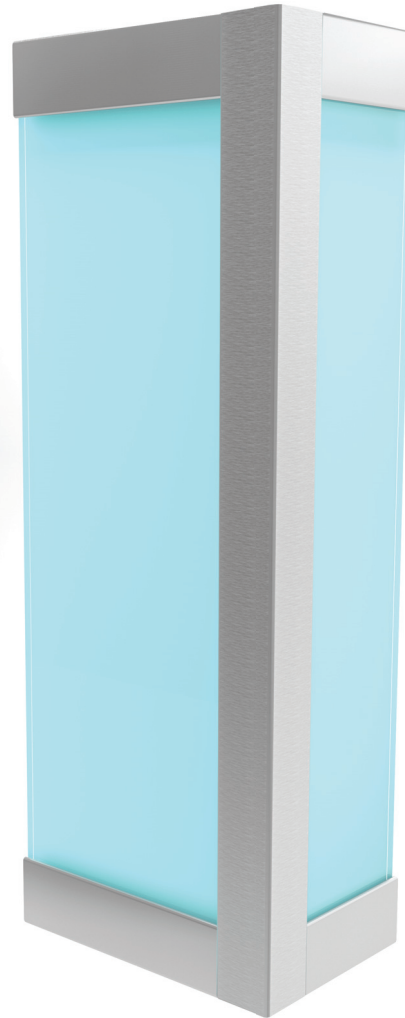


PLAN SECTION - DIAMOND 8®

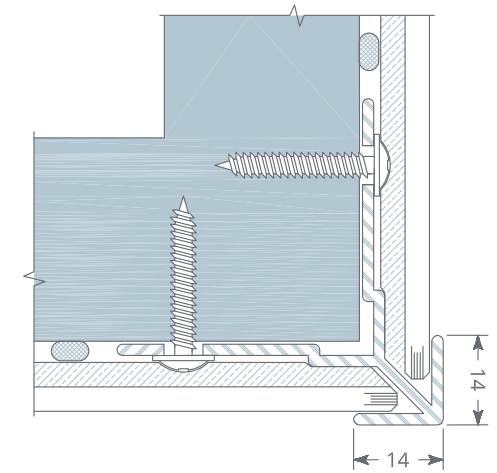


PLAN SECTION - DIAMOND 26®

EXTERNAL CORNER JOINT WITH VERTICAL TRIM



RENDERED VISUAL

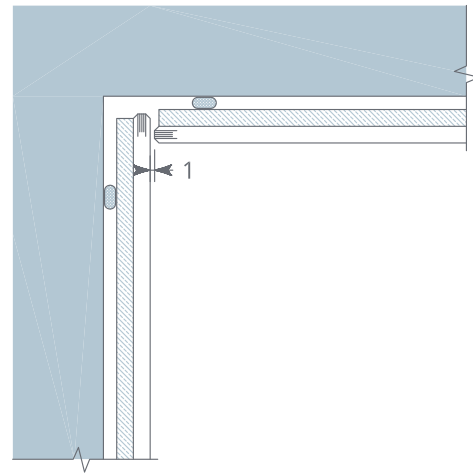


PLAN SECTION - DIAMOND 8®

DIAMOND 8® INTERNAL CORNER JOINT



RENDERED VISUAL

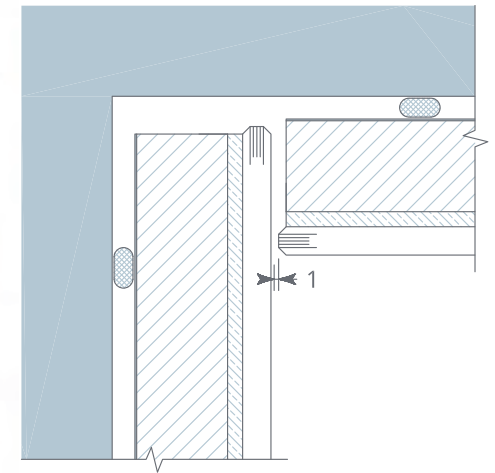


PLAN SECTION

DIAMOND 26® INTERNAL CORNER JOINT



RENDERED VISUAL

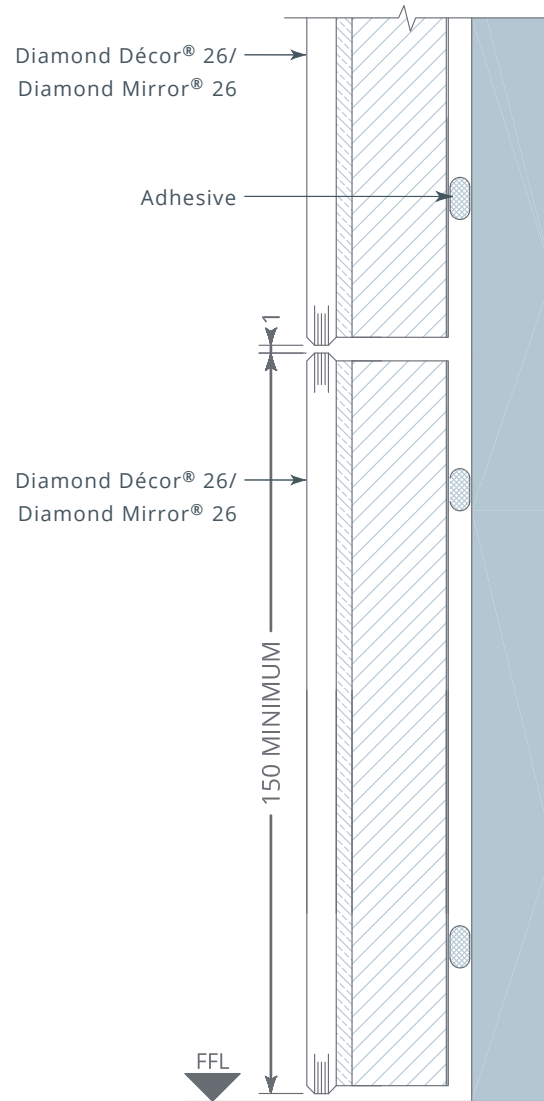


PLAN SECTION

GLASS SKIRTING



RENDERED VISUAL

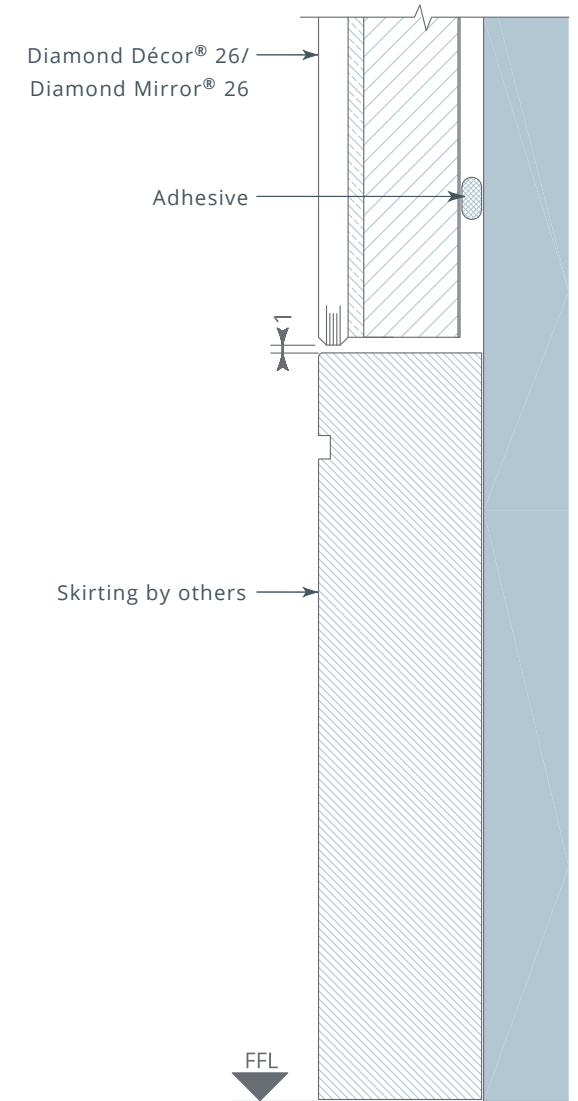


TYPICAL SECTION

TIMBER SKIRTING

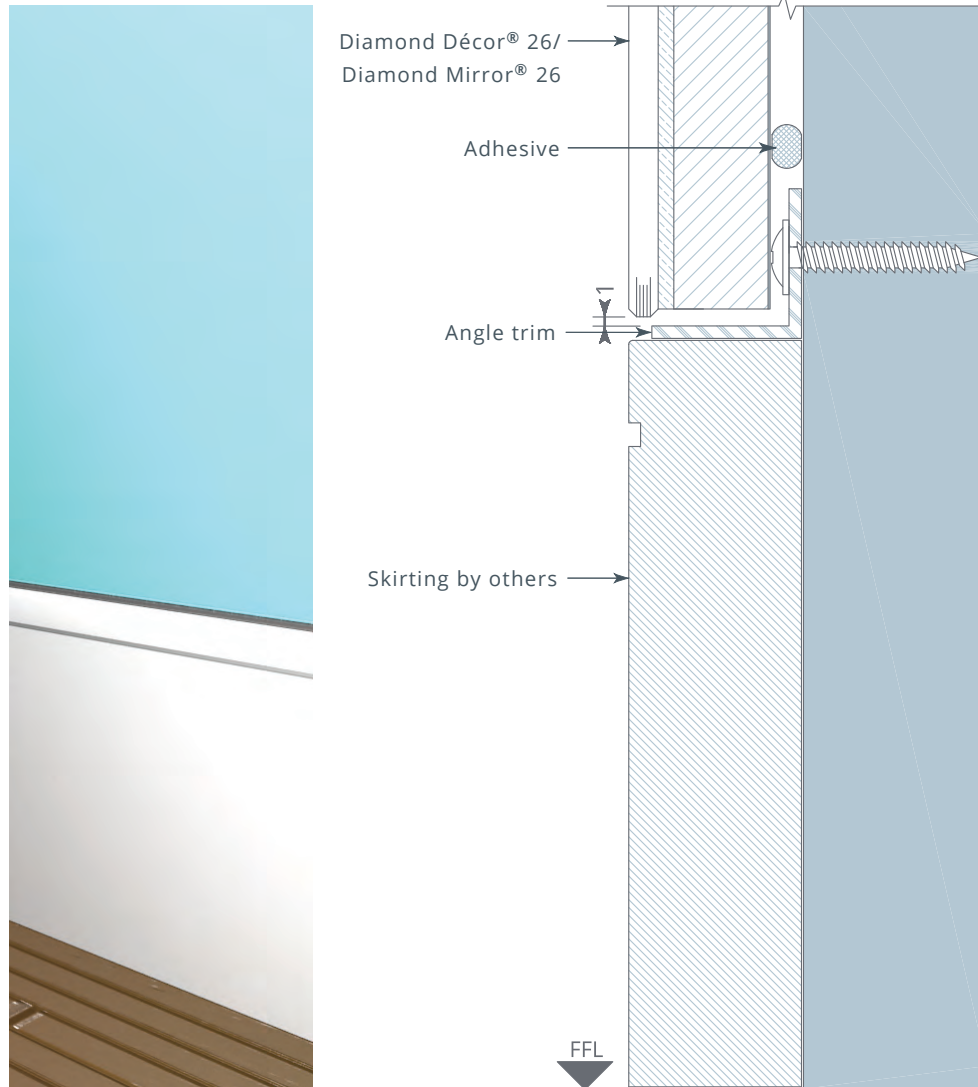


RENDERED VISUAL



TYPICAL SECTION

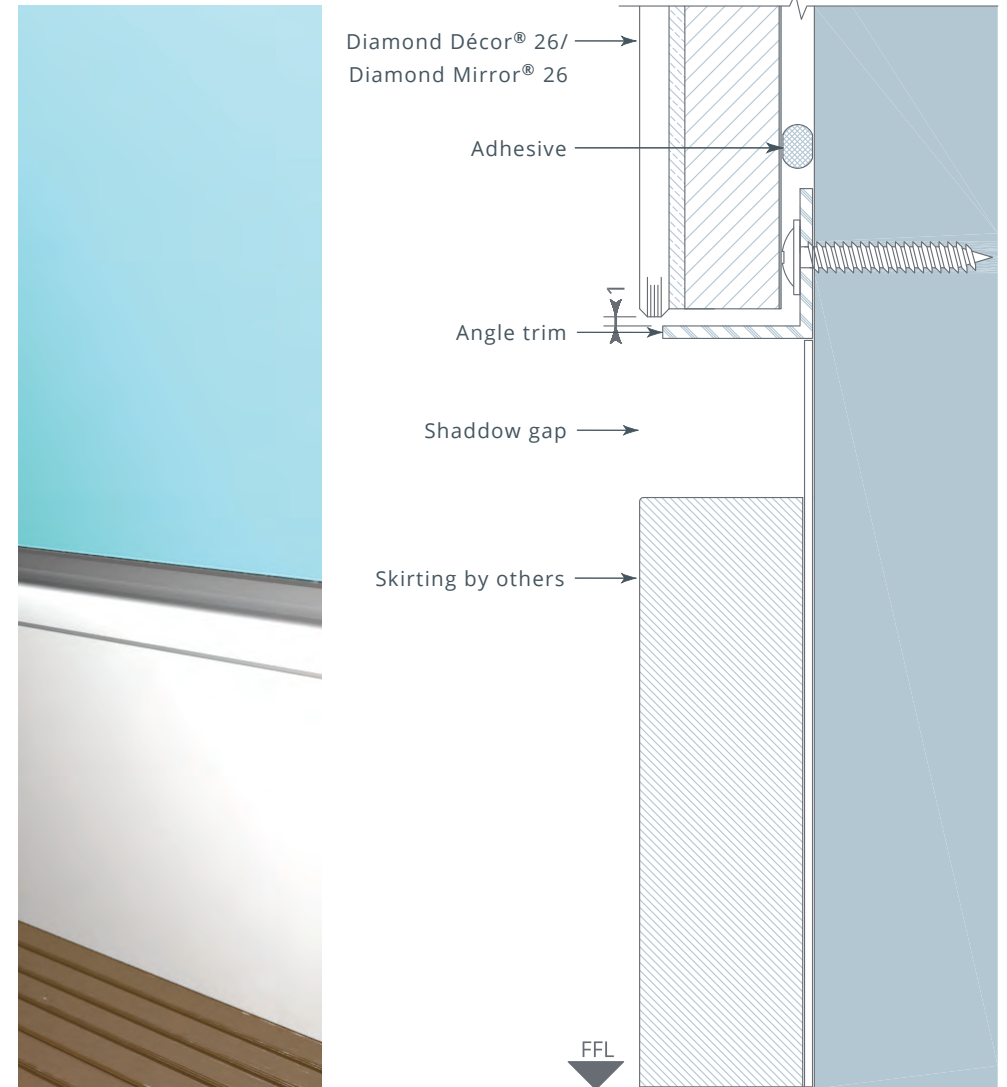
TIMBER SKIRTING WITH ANGLE TRIM



RENDERED VISUAL

TYPICAL SECTION

TIMBER SKIRTING WITH SHADOW GAP



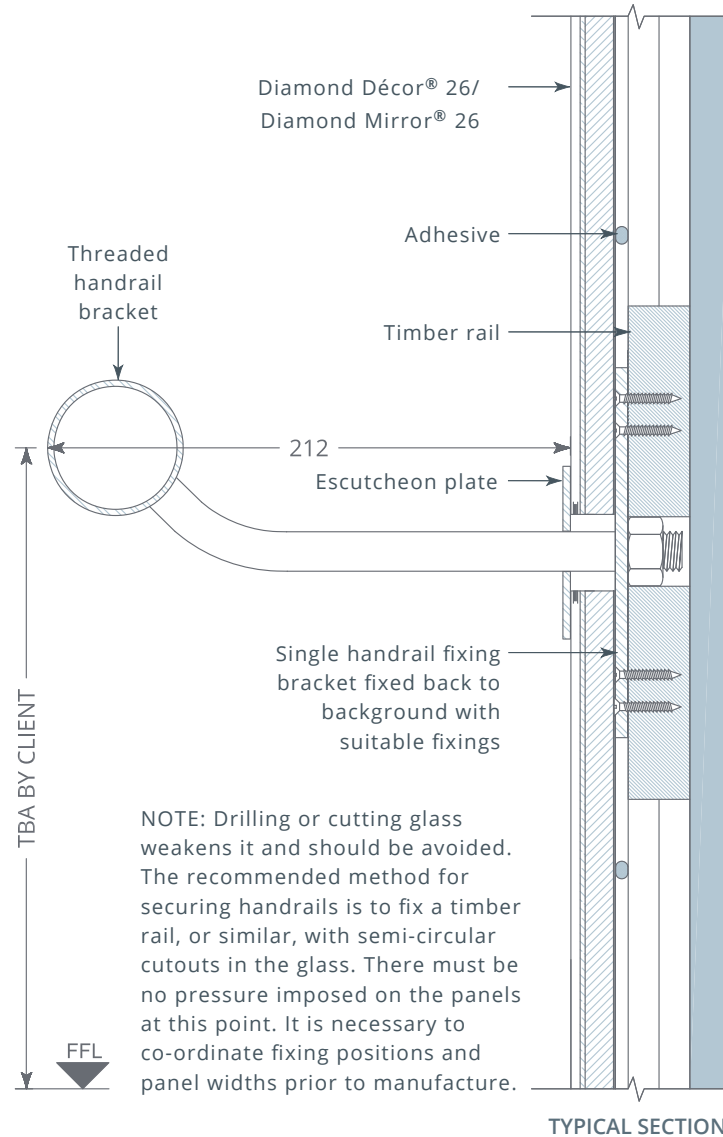
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TYPICAL SECTION

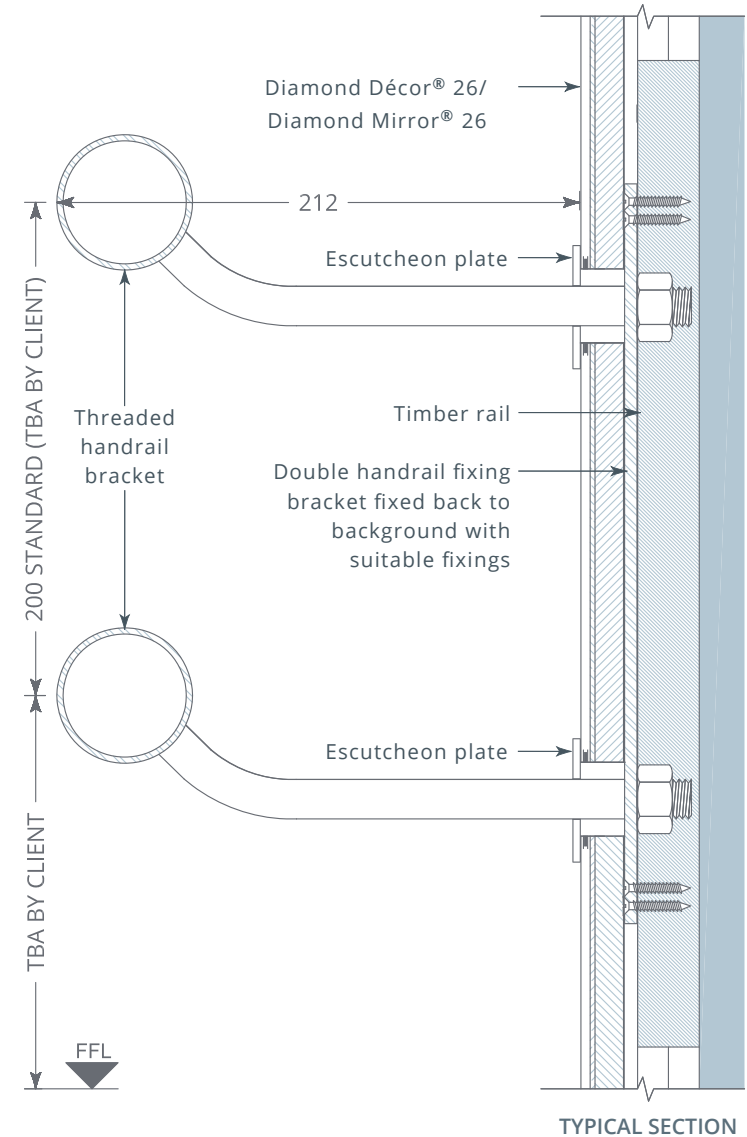
HANDRAILS - HIDDEN FIXINGS



SINGLE HANDRAIL / BALLET BARRE

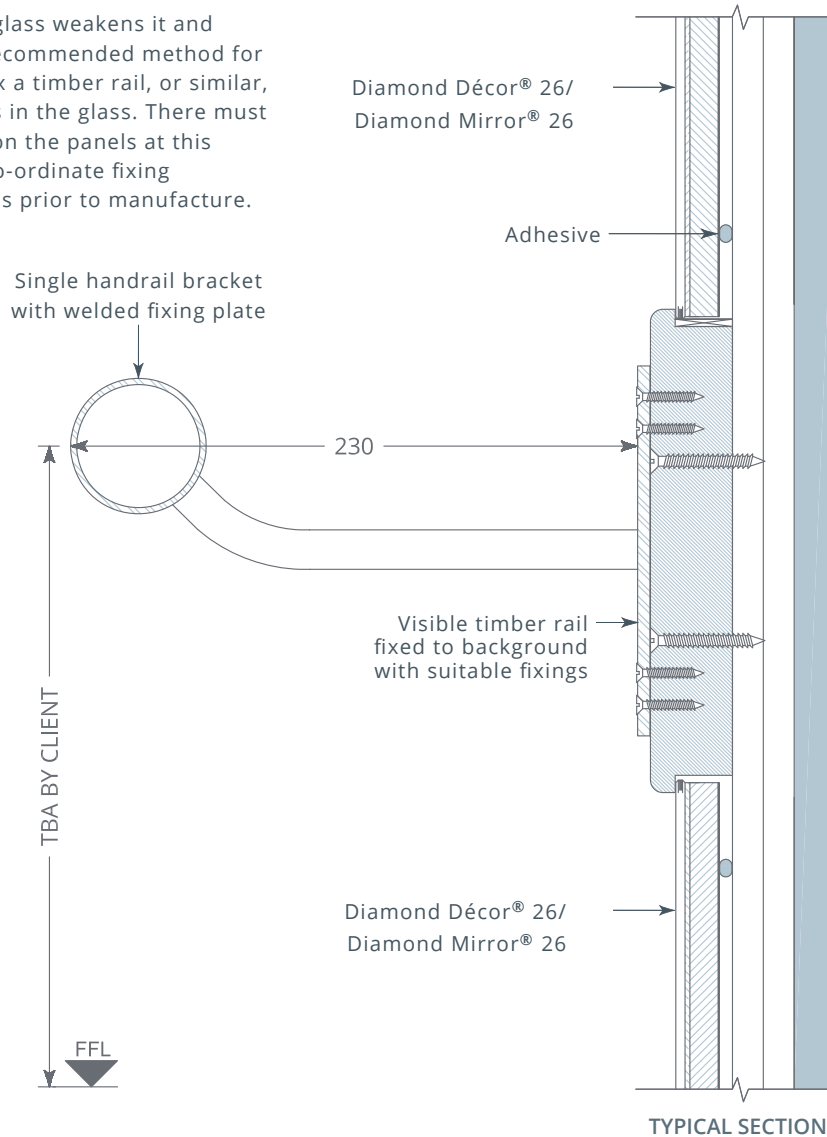


DOUBLE HANDRAIL / BALLET BARRE

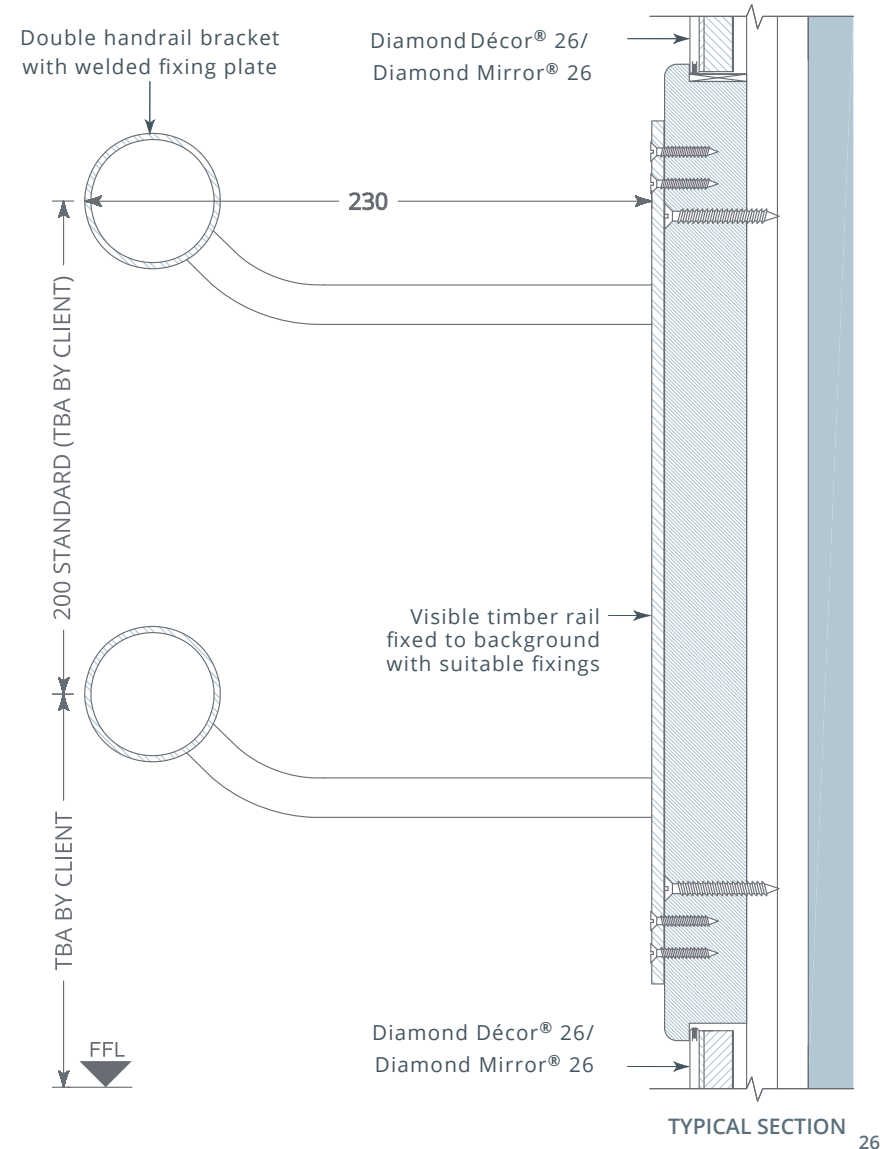


HANDRAILS - VISIBLE FIXINGS

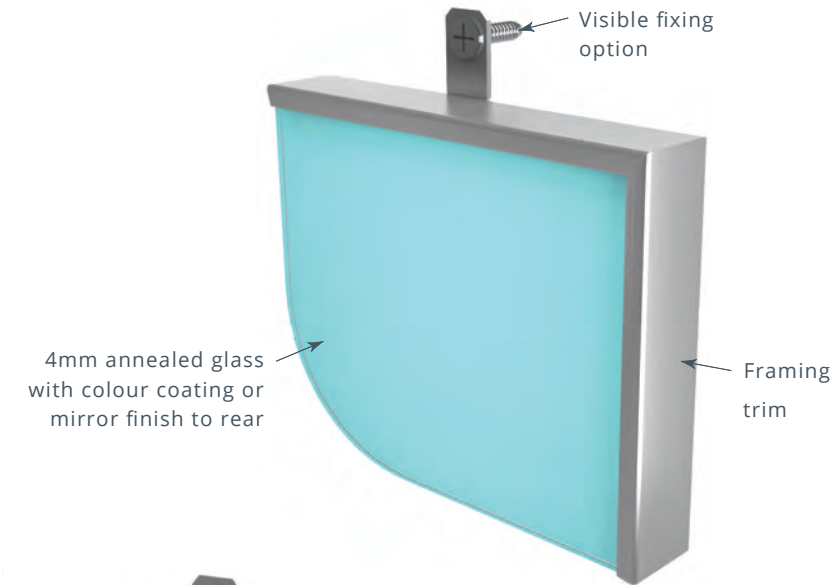
NOTE: Drilling or cutting glass weakens it and should be avoided. The recommended method for securing handrails is to fix a timber rail, or similar, with semi-circular cutouts in the glass. There must be no pressure imposed on the panels at this point. It is necessary to co-ordinate fixing positions and panel widths prior to manufacture.



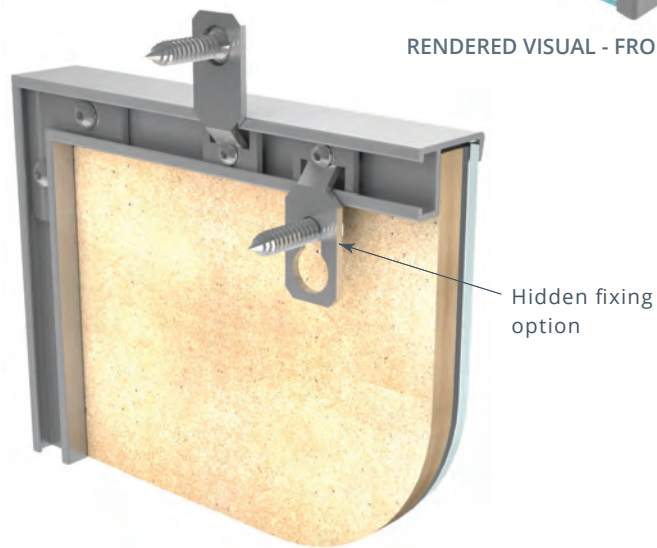
DOUBLE HANDRAIL / BALLETT BARRE



FRAME DETAILS

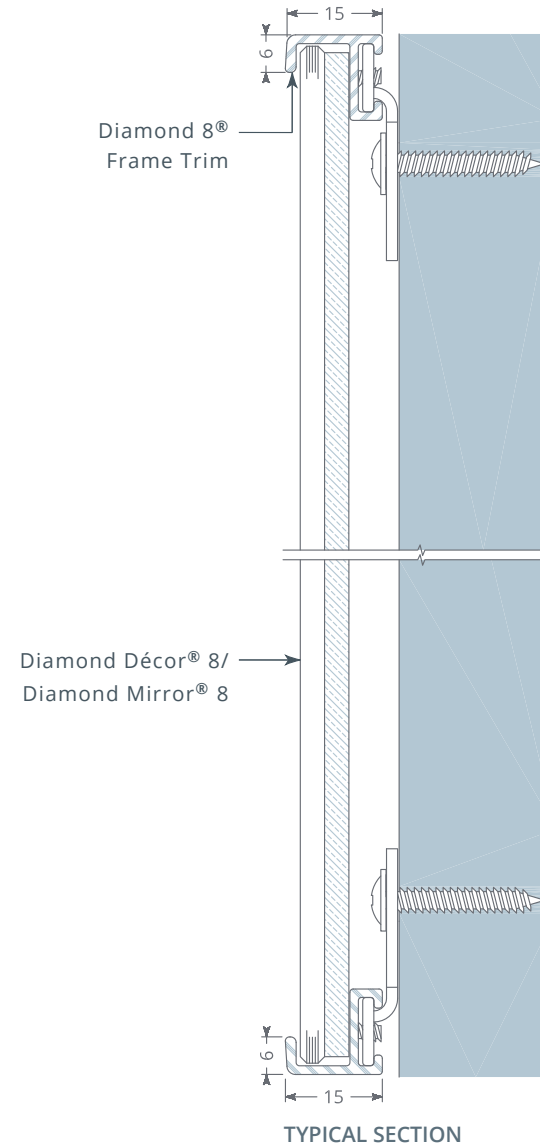


RENDERED VISUAL - FRONT



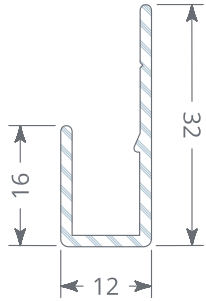
RENDERED VISUAL - REAR

DIAMOND 8® FRAME TRIM

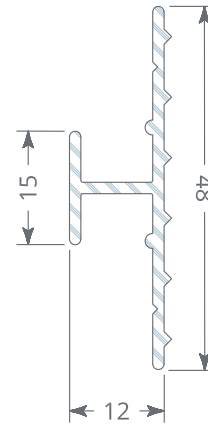


TYPICAL SECTION

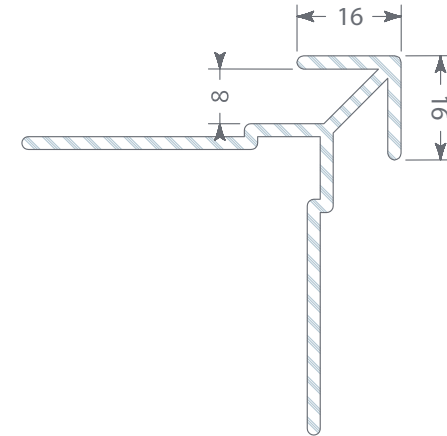
EXTRUSION PROFILES



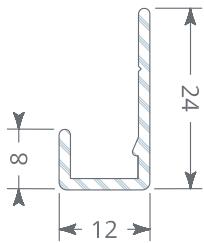
DIAMOND 8® 'J' TRIM



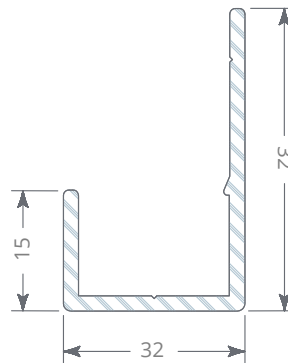
DIAMOND 8® DIVIDER



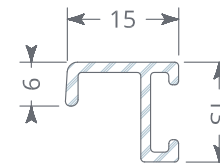
ARROWHEAD TRIM



DIAMOND 8® BOTTOM 'J' TRIM
(subject to availability)



DIAMOND 26® 'J' TRIM



DIAMOND 8® FRAMING TRIM

NOTE: All trims supplied with a bright polished anodized finish as standard. Other finishes available on request subject to availability.

TEST DATA SUMMARY
DIAMOND 8®

TEST	AUTHORITY & DATE	NOTES
EXPLOSION	Metropolitan Safety & Protection 1985	Resisted explosion 4.25m from face. Extensive cracking but held position from 0.23m from face.
IMPACT EN12600	Sandberg 2013	Class B – Level of impact resistance considerably exceeds the severe duty (SD) rating for partition wall as defined in BS 5234. Glass tested on a plasterboard skinned metal stud partition wall background. Note: Class A can be achieved with the correct substrate.
SURFACE SPREAD OF FLAME	Exova Warrington Fire 2013	BS 476 Part 7, (1997) Class 1.
FIRE PROPOGATION	Exova Warrington Fire 2013	BS 476 Part 6, (1997) Fire Propagation Index, I = 0.0 in conjunction with Part 7 Class 1

DIAMOND 26®

TEST	AUTHORITY & DATE	NOTES
IMPACT BS 6206	Building Investigation & Testing Services 2004	Class A
SURFACE SPREAD OF FLAME	Warrington Fire Research 2001	BS 476 Part 7, (1997)
FIRE PROPOGATION	Warrington Fire Research 2001	BS 476 Part 6, (1997) Fire Propagation Index, I = 0.3 in conjunction with Part 7 Class 1, Part K product rated Class O.