



THERMAFRAME

THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

ThermAFrame

101.6mm Flush Glazed Framing

Technical Manual
February 2024 | ISSUE C

alspec[®]
EVERYTHING ALUMINIUM
& HARDWARE

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Changes or additions to this manual will be itemised with a brief description and date when the amendments were made.

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2. Technical Specifications

ALUMINIUM

Aluminium frames should be manufactured using Alspec's **THERMAFRAME 101.6mm FLUSH GLAZED FRAMING** system.

Refer to wind load tables for maximum panel heights and widths.

GLAZING

- Minimum glass thickness is 6mm.
- Maximum glass thickness is 32mm.
- Glazing wedges shall be Alspec's wedges for **THERMAFRAME 101.6mm FLUSH GLAZED FRAMING** to suit standard & captive glazing options, refer glazing pages 12.1 and 12.3.

HARDWARE

- All other hardware as per Alspec Technical Manual.

FINISHES

- All powder coated material shall be produced to AS3715.
- All anodised material shall be produced to AS1231.

All products are available from Alspec (A.B.N. 63 001 252 259) as detailed in the "Alspec" catalogue or on the Internet at www.alspec.com.au. All such framing is to be constructed, assembled and fixed to meet the requirement of AS2047 (windows in buildings), AS1170 (loading code). All glass, glazing rubbers, seals and gaskets shall be applied in accordance with the requirements of AS1288 (glass in buildings - selection and installation).

Fabricators of the **THERMAFRAME 101.6mm FLUSH GLAZED FRAMING** system should seek certification by a consultant structural engineer as to the framing being acceptable for the design wind pressure and deflection characteristics required of the site.

3. Loading Tables

Loading Table Guide

The following pages contain wind pressure tables that may be used as a guide to the suitability of Alspec Aluminium Systems framing for various wind loads and frame sizes.

In most situations the Design Wind Pressure for a particular building should be available from the building designer or engineer.

Framing must be checked for suitability.

For a window / door frame, which is 2400mm high and 1000mm wide, refer to the table below;

Step 1: Locate the height

Step 2: Locate the width

Step 3: Determine the Maximum wind pressure based on the height and width.

SECTION PART NO.	Panel Height	Maximum Design Pressure (Pa)					
	2850	S	1040	840	720	630	570
		U	2410	1960	1660	1460	1310
	2700	S	1230	1000	850	750	680
		U	2700	2190	1870	1640	1480
	2550	S	1460	1200	1020	910	830
		U	3040	2470	2210	1860	1690
	2400	S	1770	1450	1250	1080	1010
		U	3440	2810	2410	2080	1940
	2250	S	2160	1780	1530	1370	1270
		U	3940	3230	2780	2470	2270
	2100	S	2670	2210	1920	1730	1610
		U	4550	3750	3240	2900	2680
lxx = xxx x xxx mm4	Panel Width	800	1000	1200	1400	1600	

STEP 1

→

2400

STEP 2

↑

1000

STEP 3

←

1450

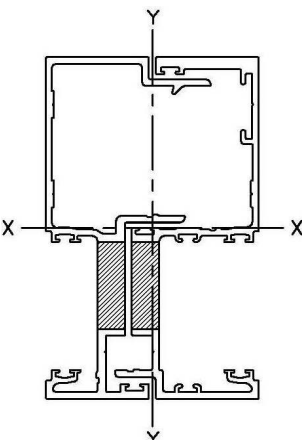
3. Loading Tables

TF402 & TF403 Split Mullions

Max Stress = 110Mpa

S = Serviceability limit state l/250

U = Ultimate limit state

TF402 & TF403 SPLIT MULLION	Frame Height	Maximum Design Pressure (Pa)						
		S	U	S	U	S	U	S
	4200	660						
		2220						
	3900	830	560					
		2580	1740					
	3600	1060	720	550				
		3030	2050	1560				
	3300	1380	940	720	590	510		
		3620	2440	1870	1530	1320		
	3000	1850	1260	970	800	700	640	590
		4390	2980	2290	1890	1640	1480	1370
	2700	2550	1740	1350	1130	1000	920	880
		5440	3700	2860	2380	2090	1910	1810
	2400	3000	2510	1970	1670	1500	1410	1390
		6910	4730	3690	3110	2770	2590	2540
	2100	3000	3000	3000	2630	2430	2370	2430
		9000	6280	4960	4260	3900	3790	3910
	1800	3000	3000	3000	3000	3000	3000	3000
		9000	8760	7070	6260	6020	6290	7390
I_{xx} = 1393 x 10³ mm⁴	Mullion centres	600	900	1200	1500	1800	2100	2400

Tables are based on theoretical section properties

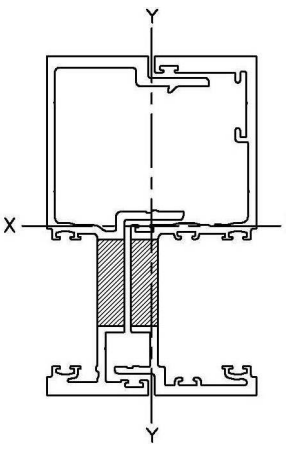
3. Loading Tables

TF422 & TF423 H.D. Split Mullions

Max Stress = 110Mpa

S = Serviceability limit state I/250

U = Ultimate limit state

TF422 & TF423 H.D. SPLIT MULLIONS	Frame Height	Maximum Design Pressure (Pa)							
	4200	S	850	570					
		U	2890	1940					
	3900	S	1070	720	550				
		U	3350	2260	1710				
	3600	S	1360	920	700	580			
		U	3940	2660	2020	1650			
	3300	S	1770	1200	920	760	660	590	540
		U	4700	3180	2430	1990	1720	1530	1410
	3000	S	2370	1610	1240	1030	900	820	760
		U	5700	3860	2970	2450	2130	1920	1780
	2700	S	3000	2230	1730	1450	1280	1180	1130
		U	7060	4810	3720	3090	2710	2480	2350
	2400	S	3000	3000	2520	2140	1930	1810	1780
		U	8980	6150	4790	4040	3600	3370	3290
	2100	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	8150	6440	5530	5070	4920	5080
	1800	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	8130	7810	8170	9000
$I_{xx} = 1786 \times 10^3 \text{ mm}^4$	Mullion centres		600	900	1200	1500	1800	2100	2400

Tables are based on theoretical section properties

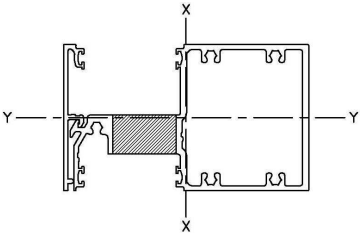
3. Loading Tables

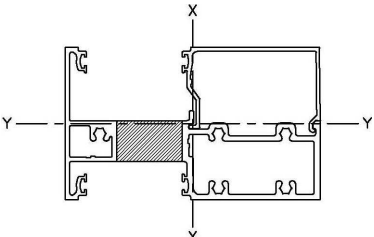
TF412 & TF413 External Glaze Transom / TF410 & TF411 Internal Glaze Transom

Max Stress = 110Mpa

S = Serviceability limit state I/250

U = Ultimate limit state

TF412 & TF413 EXT GLAZE TRANSOM	Transom Centres	Maximum Design Loads (Pa)						
	1600	S	3000	3000	3000	2790	1590	1000
		U	9000	9000	6500	3800	2550	1850
	1400	S	3000	3000	3000	2930	1710	1100
		U	9000	9000	6500	4010	2760	2030
	1200	S	3000	3000	3000	3000	1900	1230
		U	9000	9000	6840	4380	3080	2290
	1000	S	3000	3000	3000	3000	2190	1430
		U	9000	9000	7580	4990	3560	2670
	800	S	3000	3000	3000	3000	2640	1750
		U	9000	9000	8910	6000	4320	3270
	600	S	3000	3000	3000	3000	3000	2280
		U	9000	9000	9000	7760	5640	4290
	Max Kg		200	200	200	140	90	60
	Max Kg		40	60	90	140	200	200
$I_{xx} = 873 \times 10^3 \text{ mm}^4$ $I_{yy} = 343 \times 10^3 \text{ mm}^4$	Transom length		900	1200	1500	1800	2100	2400

TF410 & TF411 INTERNAL GLAZE TRANSOM	Transom Centres	Maximum Design Loads (Pa)						
	1600	S	3000	3000	3000	3000	1790	
		U	9000	9000	6740	4030	2700	
	1400	S	3000	3000	3000	3000	1920	
		U	9000	9000	6880	4250	2920	
	1200	S	3000	3000	3000	3000	2130	
		U	9000	9000	7240	4640	3260	
	1000	S	3000	3000	3000	3000	2450	1610
		U	9000	9000	8030	5290	3770	2830
	800	S	3000	3000	3000	3000	2970	1960
		U	9000	9000	9000	6250	4580	3470
	600	S	3000	3000	3000	3000	3000	2560
		U	9000	9000	9000	8220	5980	4550
	Max Kg		200	200	120	70	40	30
	Max Kg		30	40	70	120	200	200
$I_{xx} = 979 \times 10^3 \text{ mm}^4$ $I_{yy} = 166 \times 10^3 \text{ mm}^4$	Transom length		900	1200	1500	1800	2100	2400

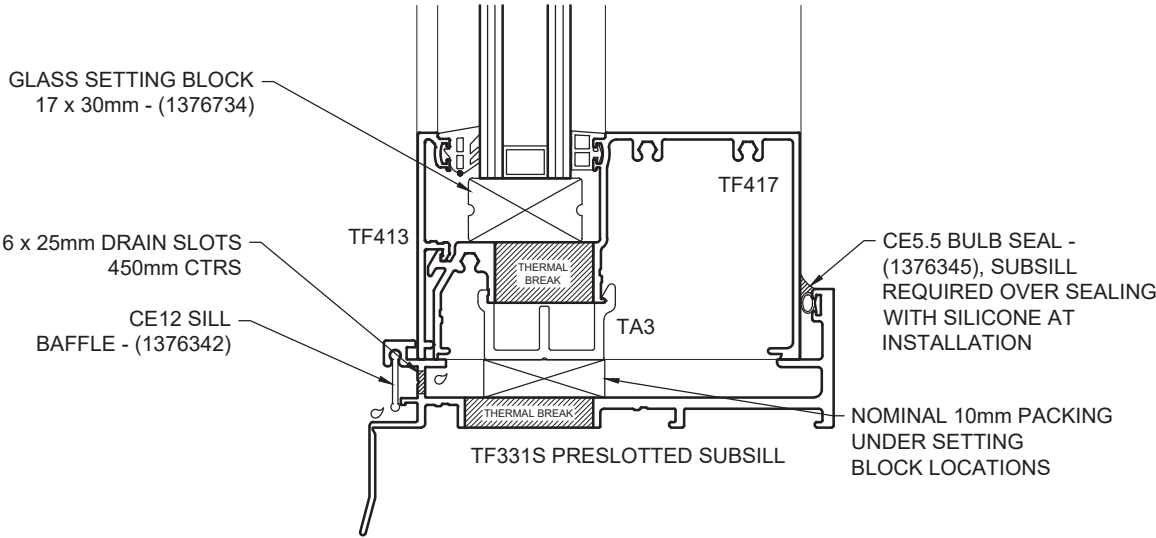
Tables are based on theoretical section properties

Maximum glass weights have been determined to limit deflection to 5mm, using setting block locations at 1/8 points.

4. Test Summary

AS2047 - Fixed/ Fixed

TEST REPORT:	AS15.261
SYSTEM CONFIGURATION	THERMAFRAME 101.6mm FLUSH GLAZED WITH TF422 & TF423 HD MULLION
TEST SAMPLE SIZE	2.4m (H) x 2.4m (W)
SERVICEABILITY LOAD	+/- 1.86 kPa
ULTIMATE LOAD	+/- 4 kPa
WATER PENETRATION	716 Pa
AIR INFILTRATION @ 75Pa	+ 0.27 L/s/ms ² - 0.38 L/s/ms ²



NOTE:

1. TF331S obsolete, substitute with TF106S

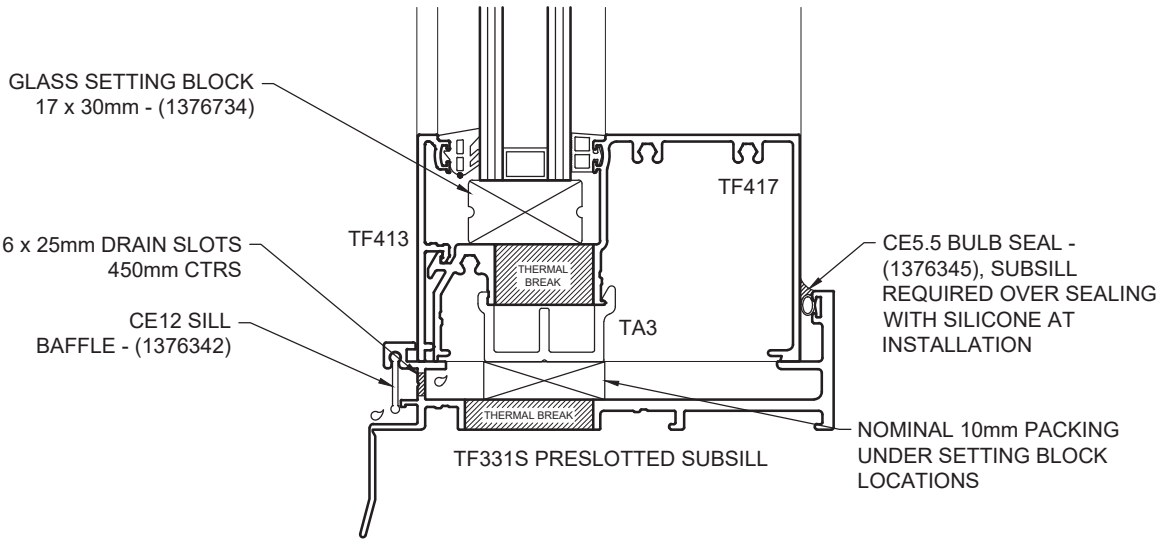
DISCLAIMER:

Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

AS2047 - Fixed/ Fixed

TEST REPORT:	AS15.266
SYSTEM CONFIGURATION	THERMAFRAME 101.6mm FLUSH GLAZED WITH TF402 & TF403 MULLIONS
TEST SAMPLE SIZE	2.4m (H) x 2.4m (W)
SERVICEABILITY LOAD	+/- 1.36 kPa
ULTIMATE LOAD	+/- 3 kPa
WATER PENETRATION	710 Pa
AIR INFILTRATION @ 75Pa	+ 0.03 L/s/ms ² - 0.02 L/s/ms ²



NOTE:

1. TF331S obsolete, substitute with TF106S

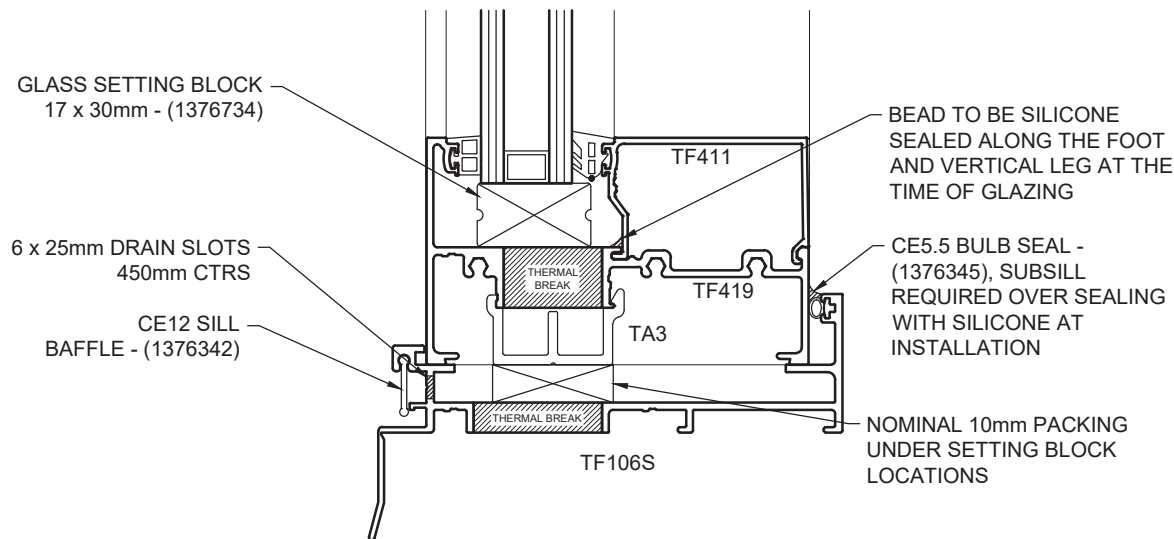
DISCLAIMER:

Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

AS2047 - Fixed/ Fixed over Fixed/ Fixed

TEST REPORT:	AS15.271
SYSTEM CONFIGURATION	THERMAFRAME 101.6mm FLUSH GLAZED WITH TF402 & TF403 MULLIONS WITH INTERNAL GLAZED SILL & TRANSOM
TEST SAMPLE SIZE	2.4m (H) x 2.4m (W)
SERVICEABILITY LOAD	+/- 1.65 kPa
ULTIMATE LOAD	+/- 3 kPa
WATER PENETRATION	719 Pa
AIR INFILTRATION @ 75Pa	+ 0.19L/s/ms ² - 0.41L/s/ms ²

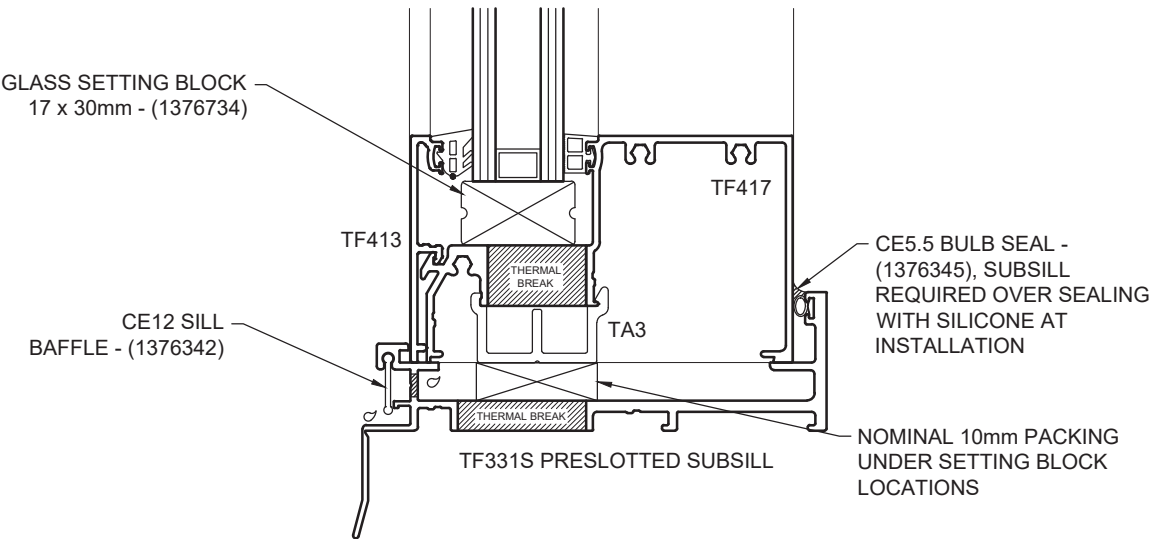


DISCLAIMER:
Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

AS2047 - Awning/ Fixed over Fixed/ Fixed

TEST REPORT:	AS15.275
SYSTEM CONFIGURATION	THERMAFRAME 101.6mm FLUSH GLAZED WITH TF422 & TF423 MULLION WITH TF331S SUBSILL AND AWNING
TEST SAMPLE SIZE	2.4m (H) x 2.4m (W)
SERVICEABILITY LOAD	+/- 2 kPa
ULTIMATE LOAD	+/- 3.8 kPa
WATER PENETRATION	800 Pa
AIR INFILTRATION @ 75Pa	+ 0.37L/s/ms ² - 0.37L/s/ms ²



NOTE:

1. TF331S obsolete, substitute with TF106S

DISCLAIMER:

Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

Acoustic - AS/NZS ISO 717.1

TEST REPORT	PRODUCT DESCRIPTION	SIZE	GLASS	Rw
TL581-05	THERMAFRAME 101.6mm FG AWNING/ FIXED OVER FIXED/ FIXED	2.1m (H) x 1.8m (W)	6.38/ 12/ 6.38mm	37 (-2, -6)

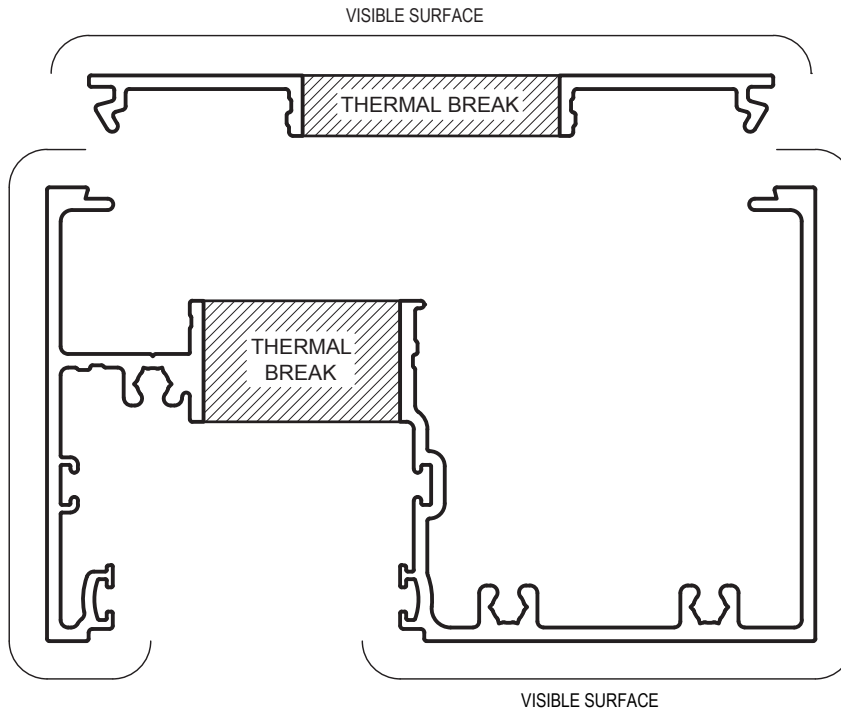
Bushfire - AS3959/ AS1530.8.1 - 2018

TEST REPORT	PRODUCT DESCRIPTION	SIZE	GLASS	SEALS	RESULT
FRT180018.3	THERMAFRAME 101.6mm FG FIXED	1.2m (H) x 0.76m (W)	6 TOUGHENED/ 12/ 6mm TOUGHENED	GR48FR & CE49FR	BAL A40

5. Extrusions

AUSTRALIAN PATENT No. 2013904581

* DENOTES REGISTERED DESIGN



TF5

101.6mm FLUSH
ADAPTOR

Anod. Per. 208

Paint Per. 100

$I_{xx} = 166.80 \times 10^3 \text{ mm}^4$

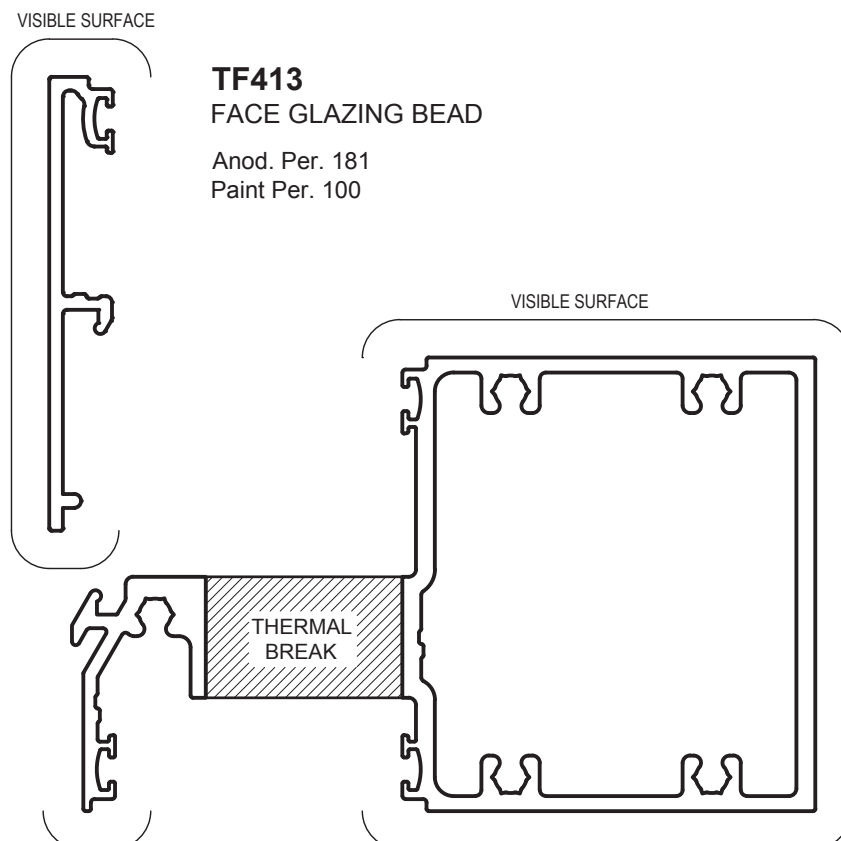
TF401*

101.6mm FRAME

Anod. Per. 723

Paint Per. 204

$I_{xx} = 954.29 \times 10^3 \text{ mm}^4$



TF413

FACE GLAZING BEAD

Anod. Per. 181

Paint Per. 100

TF412

101.6mm EXTERNAL
GLAZE TRANSOM

Anod. Per. 459

Paint Per. 188

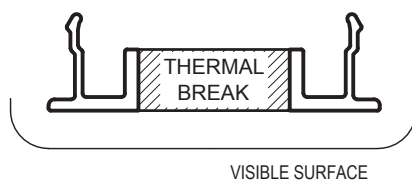
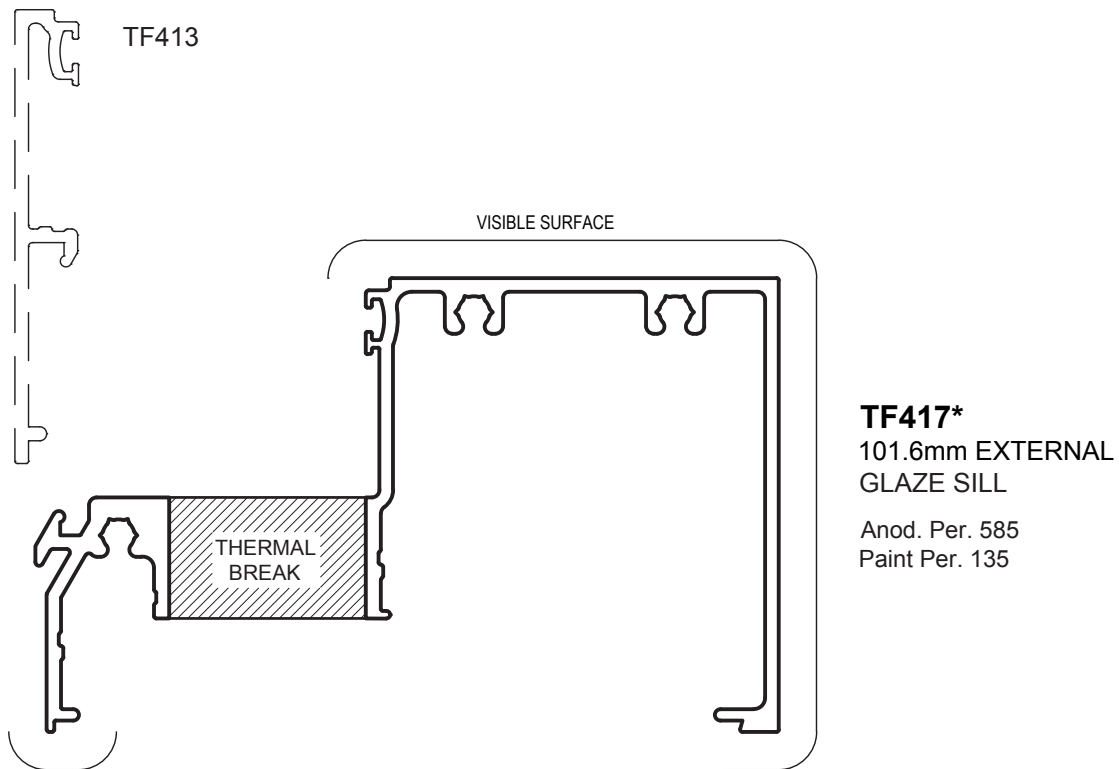
$I_{xx} = 872.96 \times 10^3 \text{ mm}^4$

$I_{yy} = 347.63 \times 10^3 \text{ mm}^4$

5. Extrusions

AUSTRALIAN PATENT No. 2013904581

* DENOTES REGISTERED DESIGN

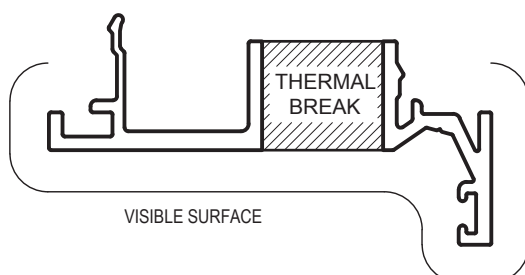
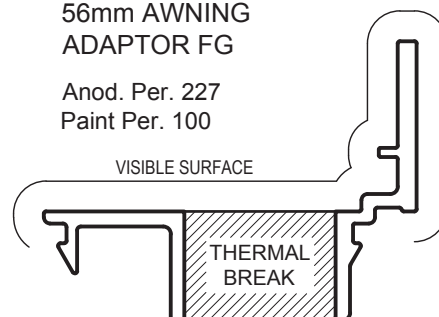


TF8
FLUSH POCKET INFILL

Anod. Per. 156
Paint Per. 100

TF421
56mm AWNING
ADAPTOR FG

Anod. Per. 227
Paint Per. 100



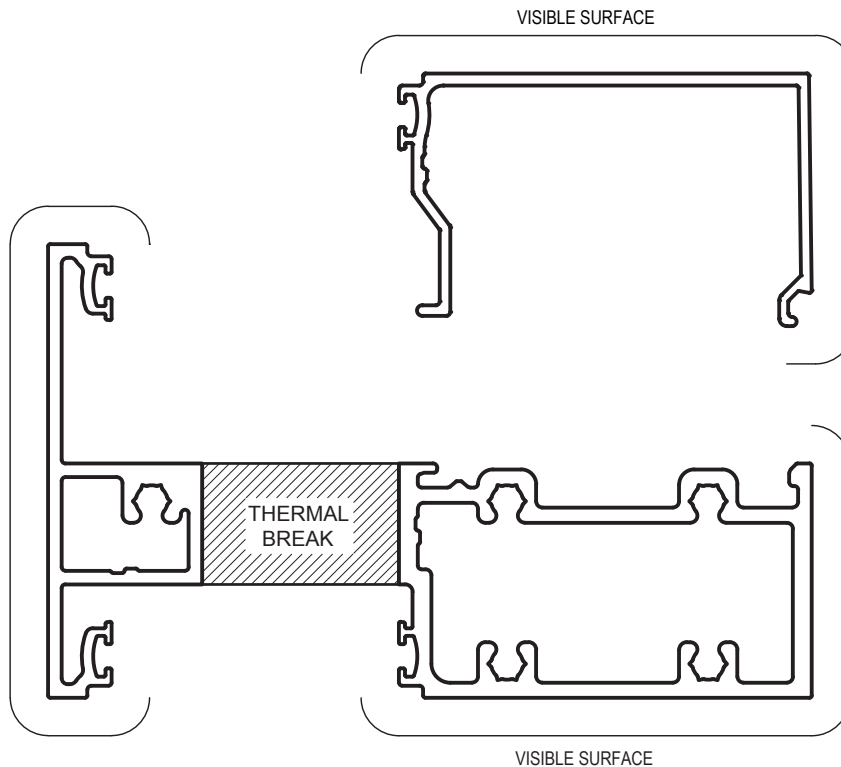
TF407
50mm DOOR STOP

Anod. Per. 286
Paint Per. 123

5. Extrusions

AUSTRALIAN PATENT No. 2013904581

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TF411

101.6mm INTERNAL
GLAZE BEAD

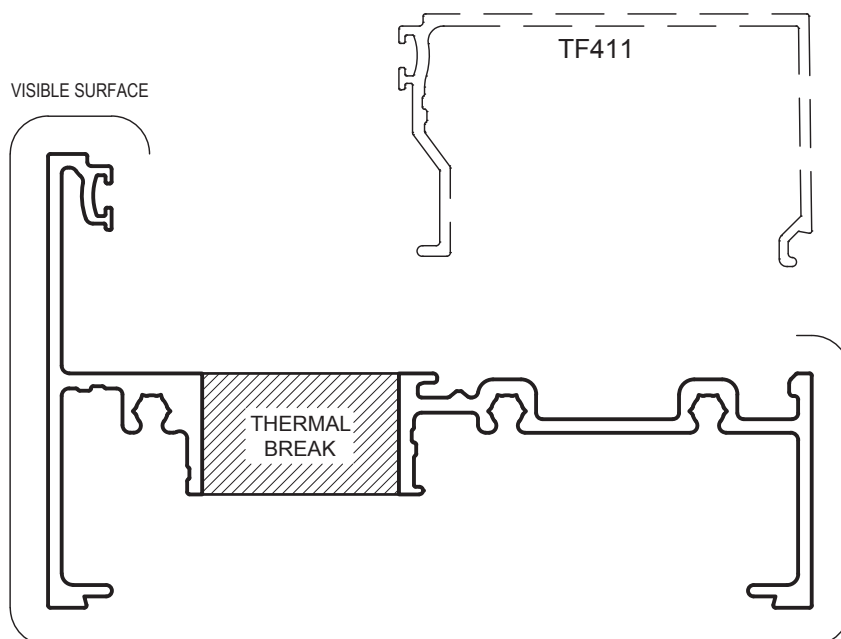
Anod. Per. 256
Paint Per. 100

TF410

101.6mm INTERNAL
GLAZE TRANSOM

Anod. Per. 498
Paint Per. 175

$I_{xx} = 979.22 \times 10^3 \text{ mm}^4$
 $I_{yy} = 164.55 \times 10^3 \text{ mm}^4$



TF419*

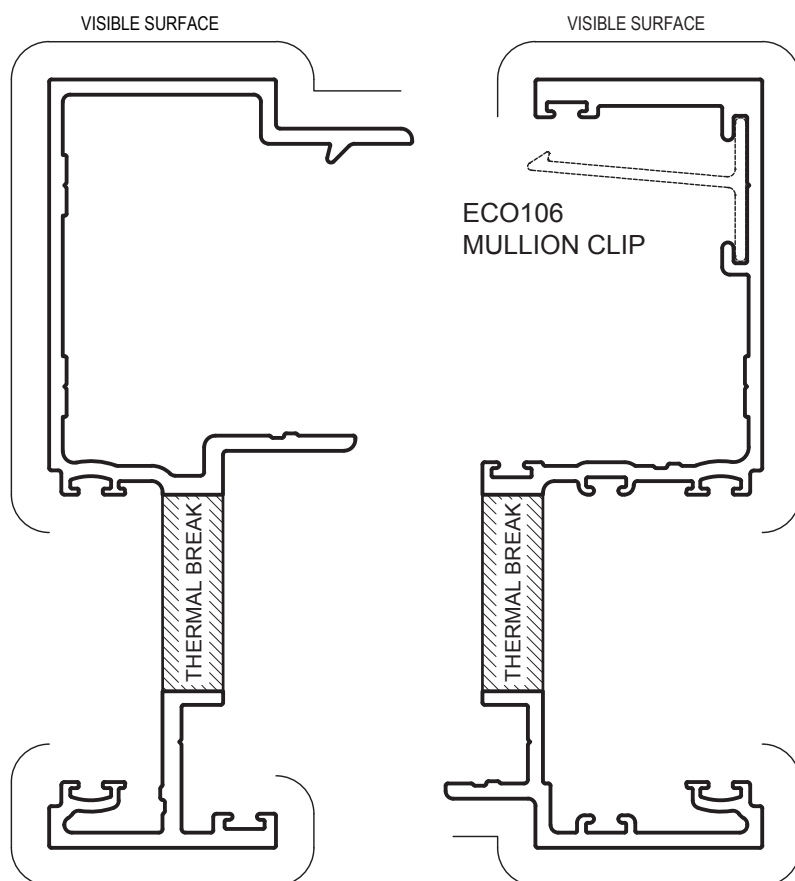
101.6mm INTERNAL
GLAZE SILL

Anod. Per. 556
Paint Per. 117

5. Extrusions

AUSTRALIAN PATENT No. 2013904581

* DENOTES REGISTERED DESIGN



TF402

101.6mm MALE MULLION

Anod. Per. 508

Paint Per. 160

Ixx = $672.38 \times 10^3 \text{ mm}^4$

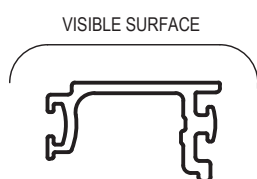
TF403*

101.6mm FEMALE MULLION

Anod. Per. 507

Paint Per. 155

Ixx = $720.42 \times 10^3 \text{ mm}^4$



HE431 SINGLE GLAZE ADAPTOR

Anod. Per. 105

Paint Per. 100

VISIBLE SURFACE



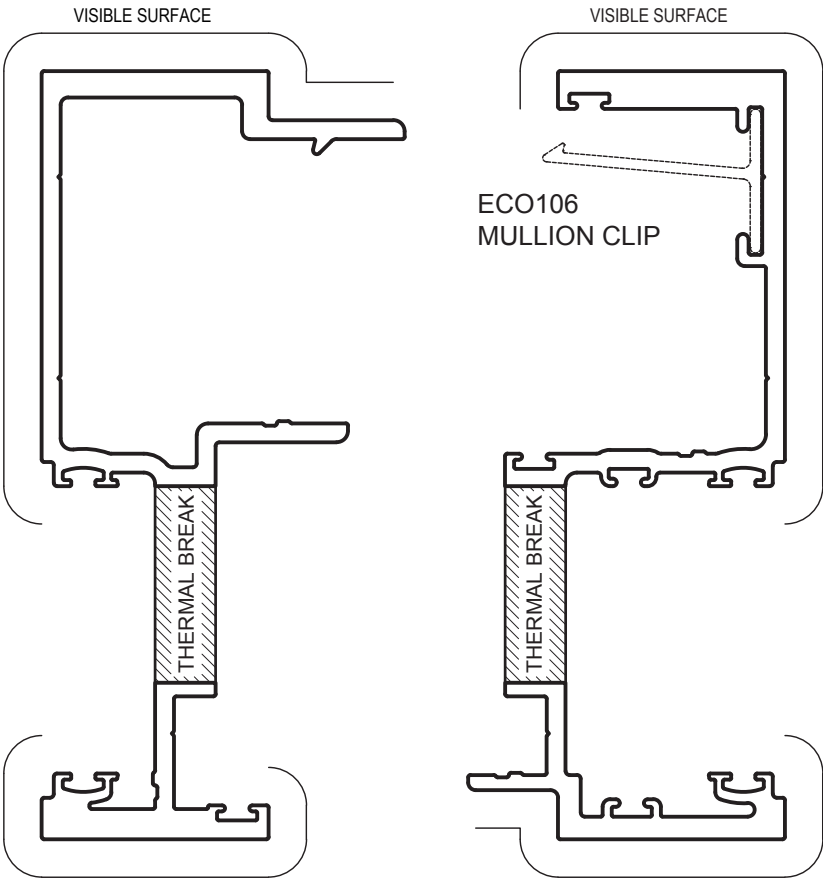
ECO123 GLAZING ADAPTOR

Anod. Per. 100

Paint Per. 100

5. Extrusions

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* DENOTES REGISTERED DESIGN



TF422
101.6mm H.D.
MALE MULLION

Anod. Per. 486
Paint Per. 160
 $I_{xx} = 897.29 \times 10^3 \text{ mm}^4$

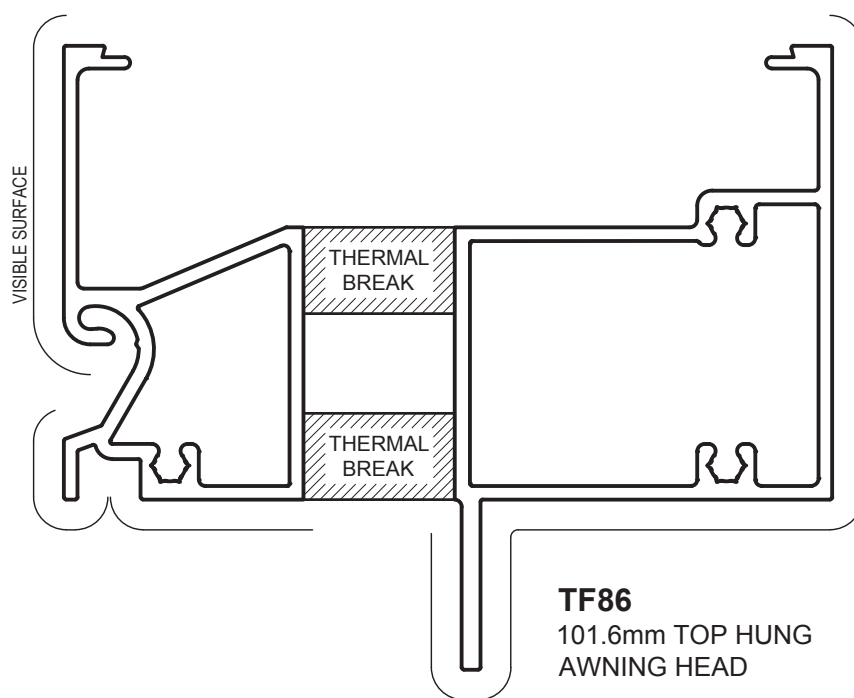
TF423*
101.6mm H.D.
FEMALE MULLION

Anod. Per. 495
Paint Per. 155
 $I_{xx} = 888.70 \times 10^3 \text{ mm}^4$

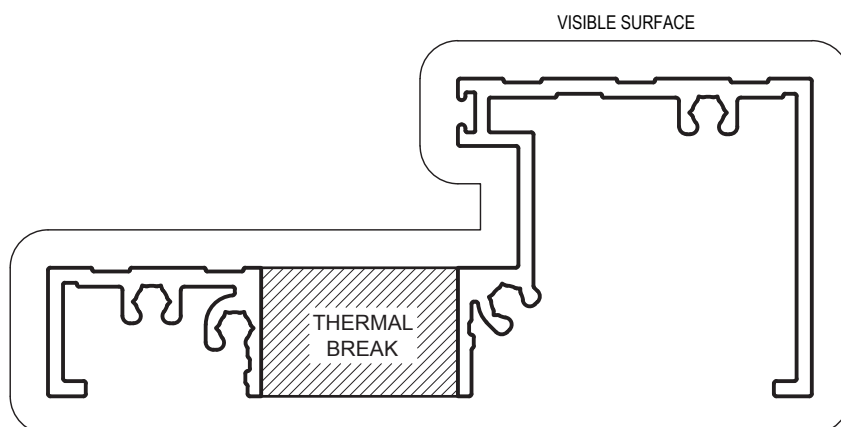
5. Extrusions

AUSTRALIAN PATENT No. 2013904581

* DENOTES REGISTERED DESIGN

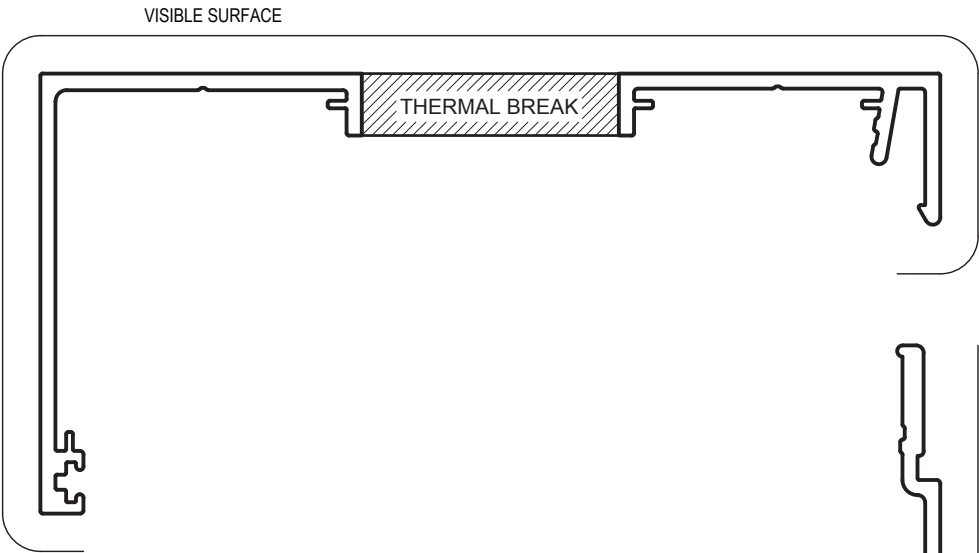


Anod. Per. 608
Paint Per. 245



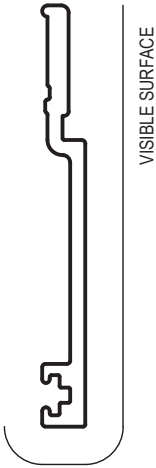
Anod. Per. 548
Paint Per. 214

5. Extrusions



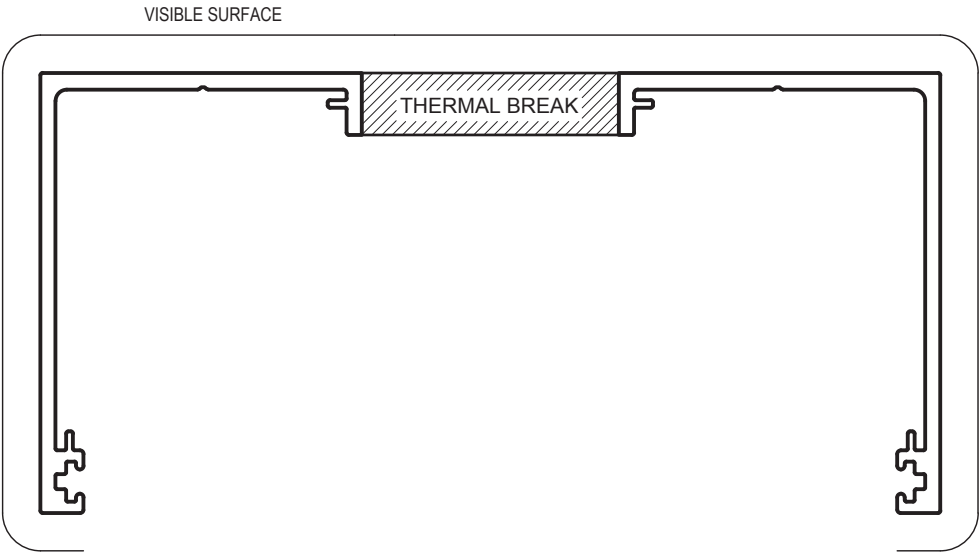
TF157
101.6mm 2 PIECE
SUB HEAD

Anod. Per. 435
Paint Per. 205



TF158
2 PIECE
SUB HEAD FASCIA

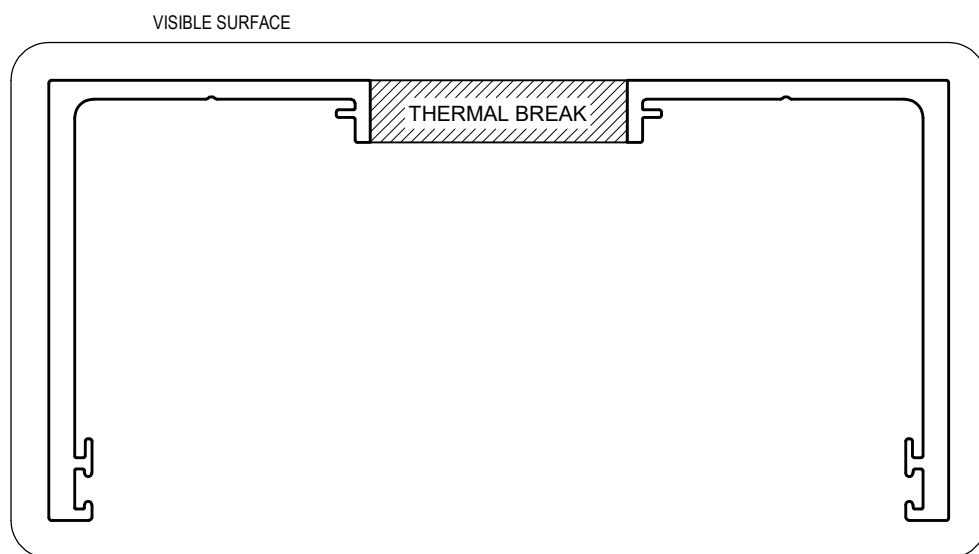
Anod. Per. 140
Paint Per. 100



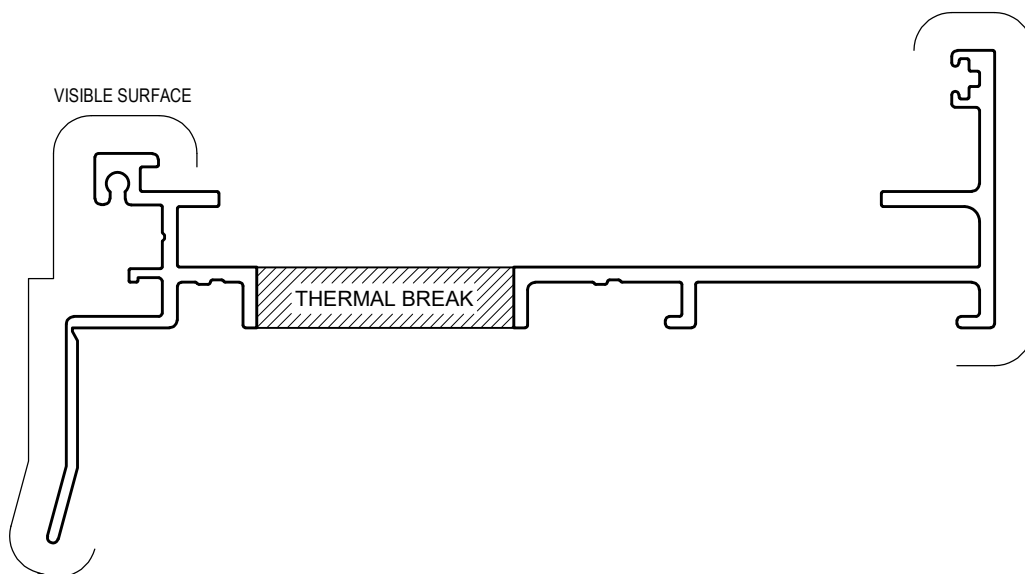
TF107
101.6mm SUB HEAD

Anod. Per. 508
Paint Per. 245

5. Extrusions



TF108
101.6mm
HD SUB HEAD
Anod. Per. 496
Paint Per. 245



TF106S
101.6mm SUB SILL
Anod. Per. 519
Paint Per. 148

6. Hardware & Components

Glazing Wedges

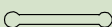
IMAGE	TO SUIT GAP	MATERIAL	PART #	DESCRIPTION
	3mm	PVC	1313055	GR43 GLAZING WEDGE (BROWN) (3mm GAP) PVC x 200m ROLL
		S/PRENE	1313063	GR43S GLAZING WEDGE (BROWN) (3mm GAP) S/PRENE x 200m ROLL
	4mm	PVC	1313056	GR44 GLAZING WEDGE (WHITE) (4mm GAP) PVC x 200m ROLL
		S/PRENE	1313064	GR44S GLAZING WEDGE (WHITE) (4mm GAP) S/PRENE x 200m ROLL
	5mm	PVC	1313057	GR45 GLAZING WEDGE (BLUE) (5mm GAP) PVC x 150m ROLL
		S/PRENE	1313065	GR45S GLAZING WEDGE (BLUE) (5mm GAP) S/PRENE x 150m ROLL
	6mm	PVC	1313058	GR46 GLAZING WEDGE (YELLOW) (6mm GAP) PVC x 150m ROLL
		S/PRENE	1313066	GR46S GLAZING WEDGE (YELLOW) (6mm GAP) S/PRENE x 150m ROLL
	7mm	PVC	1313059	GR47 GLAZING WEDGE (RED) (7mm GAP) PVC x 150m ROLL
		S/PRENE	1313062	GR47S GLAZING WEDGE (RED) (7mm GAP) S/PRENE x 150m ROLL
	8mm	PVC	1313060	GR48 GLAZING WEDGE (ORANGE) (8mm GAP) PVC x 150m ROLL
		S/PRENE	1313067	GR48S GLAZING WEDGE (ORANGE) (8mm GAP) S/PRENE x 150m ROLL
	9mm	PVC	1313076	GR50 GLAZING WEDGE (GREEN) (9mm GAP) PVC x 100m ROLL

6. Hardware & Components

Backing Gaskets

IMAGE	TO SUIT GAP	MATERIAL	PART #	DESCRIPTION
	2mm	PVC	1313052	GR36 BACKING GASKET - PUSH IN (2mm GAP) PVC x 200m ROLL
		S/PRENE	1313053	GR36S BACKING GASKET - PUSH IN (2mm GAP) S/PRENE x 200m ROLL
	2mm	PVC	1313079	CE36 CO-EXT BACKING GASKET (2mm GAP) PVC x 100m ROLL
		S/PRENE	1313080	CE36S CO-EXT BACKING GASKET (2mm GAP) S/PRENE x 100m ROLL
	4mm	PVC	1313054	GR37 BACKING GASKET - PUSH IN (4mm GAP) PVC x 175m ROLL
		S/PRENE	1313069	GR37S BACKING GASKET - PUSH IN (4mm GAP) S/PRENE x 175m ROLL
	4mm	PVC	1313081	CE37 CO-EXT BACKING GASKET (4mm GAP) PVC x 100m ROLL
		S/PRENE	1313082	CE37S CO-EXT BACKING GASKET (4mm GAP) S/PRENE x 100m ROLL
	6mm	PVC	1313074	GR49 BACKING GASKET - PUSH IN (6mm GAP) PVC x 100m ROLL
		S/PRENE	1313075	GR49S BACKING GASKET - PUSH IN (6mm GAP) S/PRENE x 100m ROLL
	6mm	PVC	1313083	CE49 CO-EXT BACKING GASKET (6mm GAP) PVC x 100m ROLL
		S/PRENE	1313084	CE49S CO-EXT BACKING GASKET (6mm GAP) S/PRENE x 100m ROLL
	8.5mm	S/PRENE	1313078	CE52S CO-EXT BACKING GASKET (8.5mm GAP) x 100m ROLL

Seals

IMAGE	PART #	FINISH	DESCRIPTION
	1376079	BLACK (034)	CE308 CO-EXT DOOR BUFFER S/PRENE x 200m ROLL
	1376449	BLACK (034)	MS6 MULLION SEAL PVC x 200m
	1376345	BLACK (034)	CE5.5 CO-EXT BULB SEAL (5.5mm DIAMETER) x 250m ROLL
	1376456	BLACK (034)	CE5.5 CO-EXT BULB SEAL (5.5mm DIAMETER) x 1m
	1376342	BLACK (034)	CE12 CO-EXT BAFFLE (16.5mm HEIGHT) x 250m ROLL

6. Hardware & Components

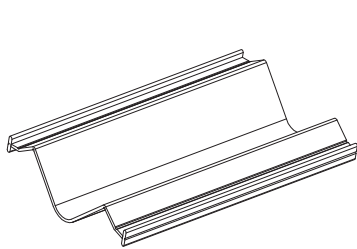
Fasteners

SCREWS			
PART #	HEAD	DESCRIPTION	LOCATION
1382021	PHILLIPS #2	10g x 2 (50mm) SS PHILLIPS CSK S/TAP x 200	MAIN FRAME (FRONT)
1382054	PHILLIPS #2	10g x 1 (25mm) SS PHIL PAN S/TAP SCREW x 500	MAIN FRAME
1382095	PHILLIPS #2	10g x 1 (25mm) SS PHILLIPS CSK S/TAP x 200	MULLION

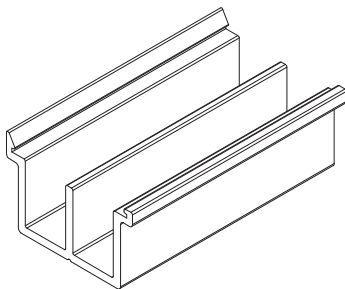
Frame Joint Gaskets

PART #	DESCRIPTION	FINISH
1385557	FJG007 60mm x 102mm 760PCS PER ROLL	BLACK (034)
		GREY (036)

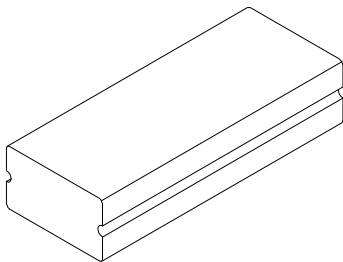
Accessories



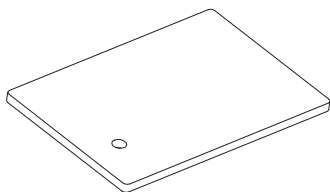
TA2 GLAZING POCKET BAFFLE x 100m ROLL	
PART	1316105
FINISH	BLACK (034)
QTY	EACH



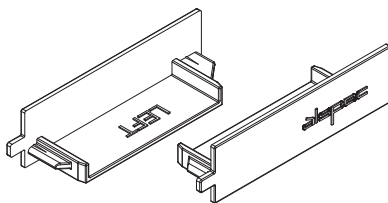
TA3 FLUSH GLAZED FRAME CAVITY BAFFLE x 3.6m	
PART	1316106
FINISH	GREY (036)
QTY	EACH



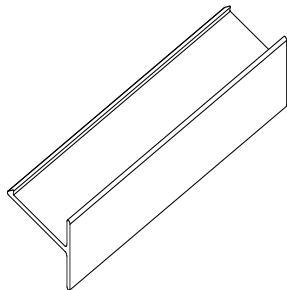
SETTING BLOCK 17 x 30 x 75mm BAG OF 50	
PART	1376734
FINISH	BLACK (034)
QTY	BAG



TA7 38mm POCKET STOP	
PART	1316100
FINISH	BLACK (034)
QTY	EACH



TA19 100mm ThermAFrame SUBSILL END CAP x PAIR	
PART	1345561
FINISH	BLACK (034)
QTY	PAIR



ECO106 MULLION CLIP x 150mm (6106 T6)	
PART	1378140
FINISH	MILL (001)
QTY	EACH

6. Hardware & Components

Silicone



100% NEUTRAL CURE SILICONE

- Premium 100% silicone
- UV Stable
- Superior adhesion
- Flexible + 25%
- AS4020 Approved



100% MATTE NEUTRAL CURE SILICONE

- Premium 100% silicone
- Matte finish
- UV Stable
- Outstanding elongation
- Higher strength



41 CLADDING SILICONE

- Premium 100% silicone
- UV Stable
- Superior adhesion
- Movement capability + 50%



WET AREA SILICONE

- Premium 100% silicone
- Mould inhibited
- Movement capability + 25%
- UV Stable
- Non corrosive
- Superior adhesion



HYBRID PU ADHESIVE SEALANT

- No isocyanates
- Internal/External
- No shrinking/staining
- Paintable
- Excellent adhesion



20 ACETIC CURE SILICONE

- Premium 100% silicone
- UV Stable
- Superior adhesion
- Flexible + 25%



D60 SILICONE

- Premium 100% silicone
- UV Stable
- 2-5 minute skin time
- Flexible + 25%
- No slump

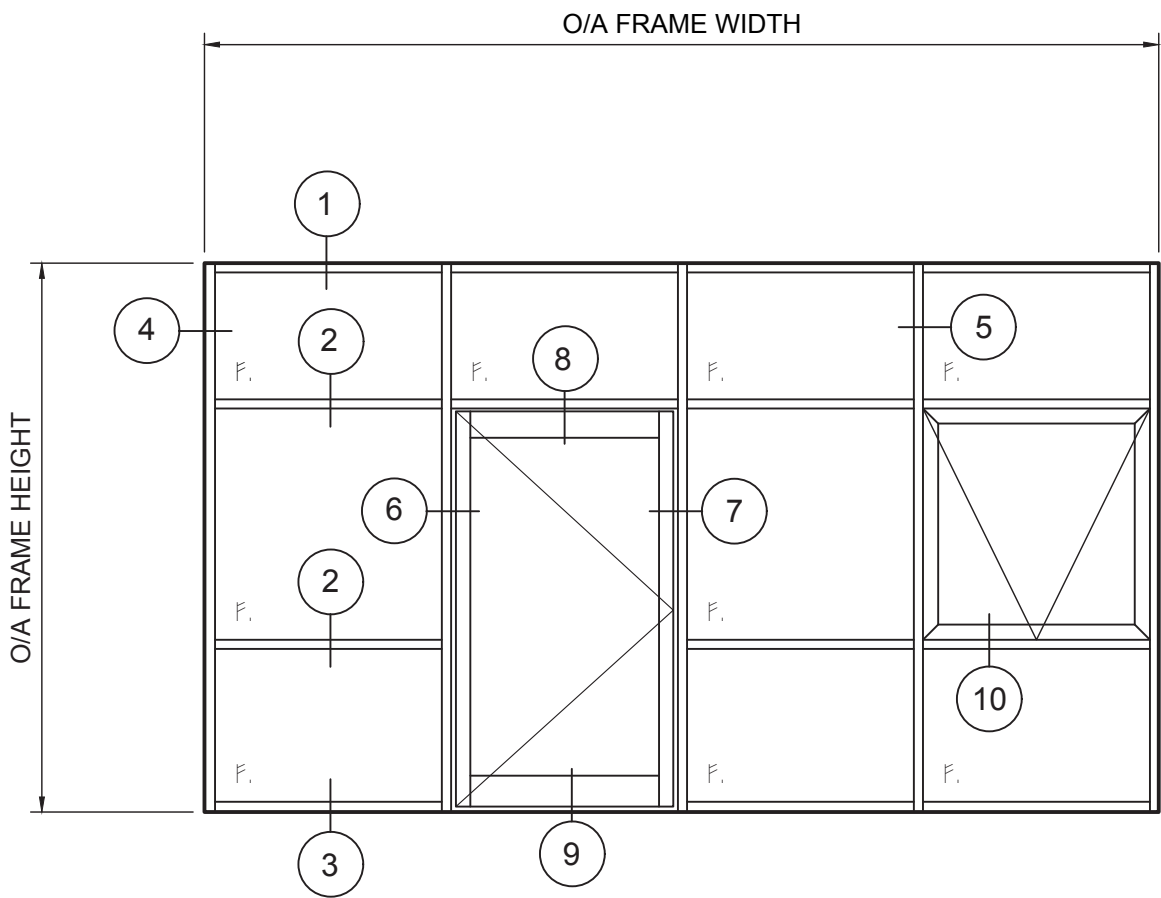
*For more information on silicones,
please refer to Alspec Silicone Brochure.

6. Hardware & Components

Silicone Product Codes

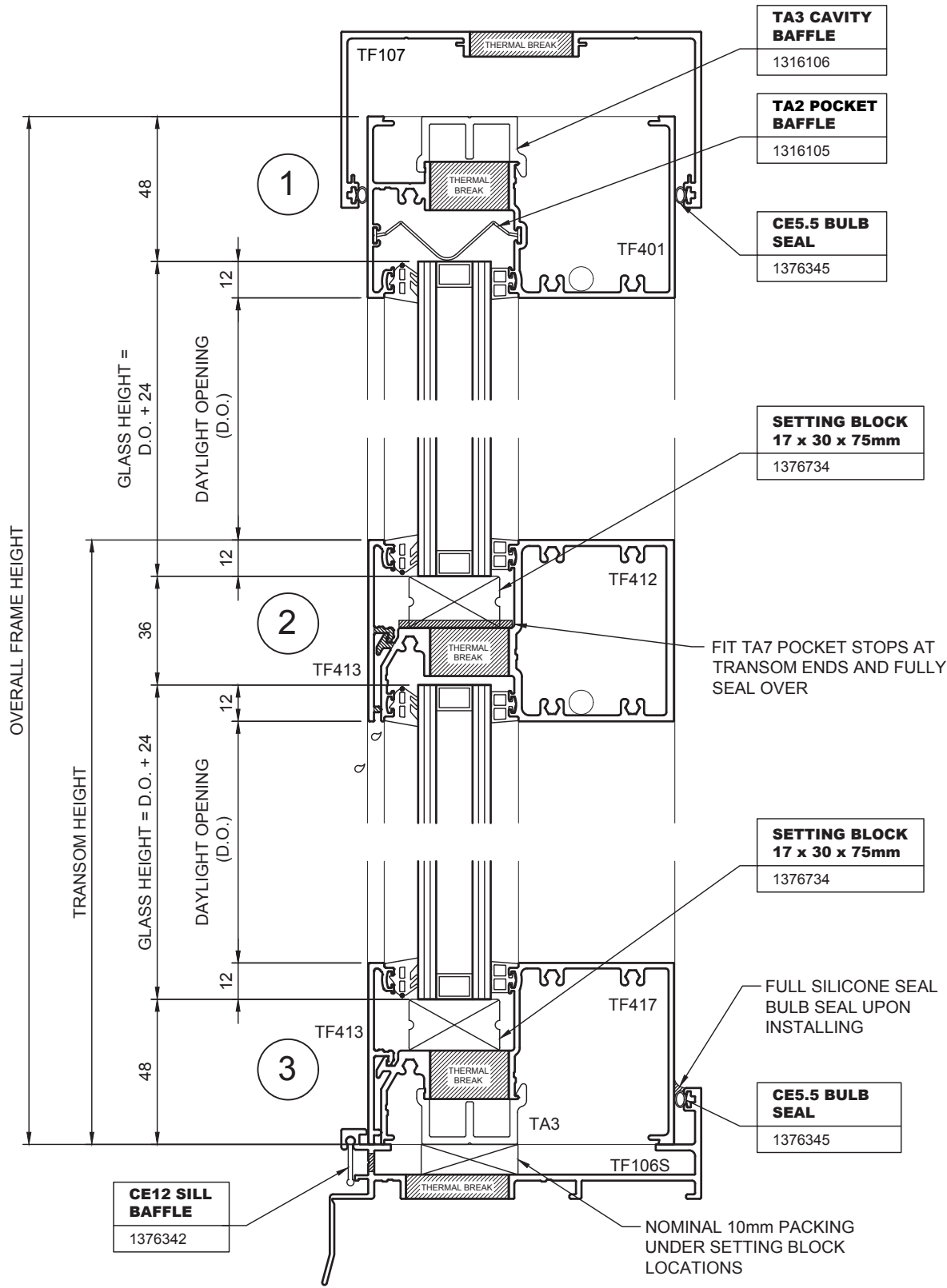
Product Category	Item No.	Alspec Part No. Code	Description	Finish	Pack
ALSPEC 100%	1	1386113	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	ALMOND IVORY	CARTRIDGE
	2	1386114	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	ALUMINIUM	CARTRIDGE
	3	1386105	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	BLACK	CARTRIDGE
	4	1386140	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	CAULFIELD GREEN	CARTRIDGE
	5	1386111	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	CLASSIC CREAM	CARTRIDGE
	6	1386108	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	GREY	CARTRIDGE
	7	1386138	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	MONUMENT	CARTRIDGE
	8	1386112	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	OFF WHITE	CARTRIDGE
	9	1386141	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	STONE BEIGE	CARTRIDGE
	10	1386101	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	TRANSLUCENT	CARTRIDGE
	11	1386106	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	WHITE	CARTRIDGE
	12	1386143	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	WOODLAND GREY	CARTRIDGE
ALSPEC 100% MATT	13	1386103	ALSPEC 100% NEUTRAL CURE SILICONE x 420g CAT	BLACK MATT	CARTRIDGE
	14	1386107	ALSPEC 100% NEUTRAL CURE SILICONE x 420g CAT	GREY MATT	CARTRIDGE
	15	1386144	ALSPEC 100% NEUTRAL CURE SILICONE x 420g CAT	WHITE MATT	CARTRIDGE
ALSPEC 20	16	1386115	ALSPEC 20 SILICONE x 310g CAT	TRANSLUCENT	CARTRIDGE
ALSPEC 41 CLADDING	17	1386159	ALSPEC 41 SILICONE x 400g CAT	BLACK MATT	CARTRIDGE
	18	1386117	ALSPEC 41 SILICONE x 600ml SAU	BLACK MATT	SAUSAGE
	19	1386158	ALSPEC 41 SILICONE x 400g CAT	LIGHT GREY MATT	CARTRIDGE
	20	1386118	ALSPEC 41 SILICONE x 600ml SAU	LIGHT GREY MATT	SAUSAGE
	21	1386157	ALSPEC 41 SILICONE x 400g CAT	WHITE MATT	CARTRIDGE
	22	1386145	ALSPEC 41 SILICONE x 600ml SAU	WHITE MATT	SAUSAGE
ALSPEC D60	23	1386121	ALSPEC D60 SILICONE x 310g CAT	BLACK	CARTRIDGE
	25	1386123	ALSPEC D60 SILICONE x 310g CAT	GREY	CARTRIDGE
	26	1386120	ALSPEC D60 SILICONE x 310g CAT	TRANSLUCENT	CARTRIDGE
	27	1386124	ALSPEC D60 SILICONE x 310g CAT	WHITE	CARTRIDGE
ALSPEC HYBRID PU	28	1386127	ALSPEC HYBRID PU x 480g CAT	BLACK	CARTRIDGE
	29	1386126	ALSPEC HYBRID PU x 600ml SAU	BLACK	SAUSAGE
	30	1386160	ALSPEC HYBRID PU x 480g CAT	GREY	CARTRIDGE
	31	1386128	ALSPEC HYBRID PU x 600ml SAU	GREY	SAUSAGE
	32	1386130	ALSPEC HYBRID PU x 480g CAT	WHITE	CARTRIDGE
	33	1386129	ALSPEC HYBRID PU x 600ml SAU	WHITE	SAUSAGE
ALSPEC WET AREA	34	1386137	ALSPEC WET AREA SILICONE x 310g CAT	ALMOND IVORY	CARTRIDGE
	35	1386139	ALSPEC WET AREA SILICONE x 310g CAT	BLACK	CARTRIDGE
	36	1386146	ALSPEC WET AREA SILICONE x 310g CAT	BLUESTONE	CARTRIDGE
	37	1386147	ALSPEC WET AREA SILICONE x 310g CAT	CHARCOAL	CARTRIDGE
	38	1386136	ALSPEC WET AREA SILICONE x 310g CAT	LIGHT GREY	CARTRIDGE
	39	1386148	ALSPEC WET AREA SILICONE x 310g CAT	MID GREY	CARTRIDGE
	40	1386149	ALSPEC WET AREA SILICONE x 310g CAT	OFF WHITE	CARTRIDGE
	41	1386150	ALSPEC WET AREA SILICONE x 310g CAT	PEWTER	CARTRIDGE
	42	1386151	ALSPEC WET AREA SILICONE x 310g CAT	STONE BEIGE	CARTRIDGE
	43	1386154	ALSPEC WET AREA SILICONE x 310g CAT	TAUPE	CARTRIDGE
	44	1386152	ALSPEC WET AREA SILICONE x 310g CAT	TILE GREY	CARTRIDGE
	45	1386133	ALSPEC WET AREA SILICONE x 310g CAT	TRANSLUCENT	CARTRIDGE
	46	1386153	ALSPEC WET AREA SILICONE x 310g CAT	TRAVERTINE	CARTRIDGE
	47	1386134	ALSPEC WET AREA SILICONE x 310g CAT	WHITE	CARTRIDGE

7. Typical Elevation



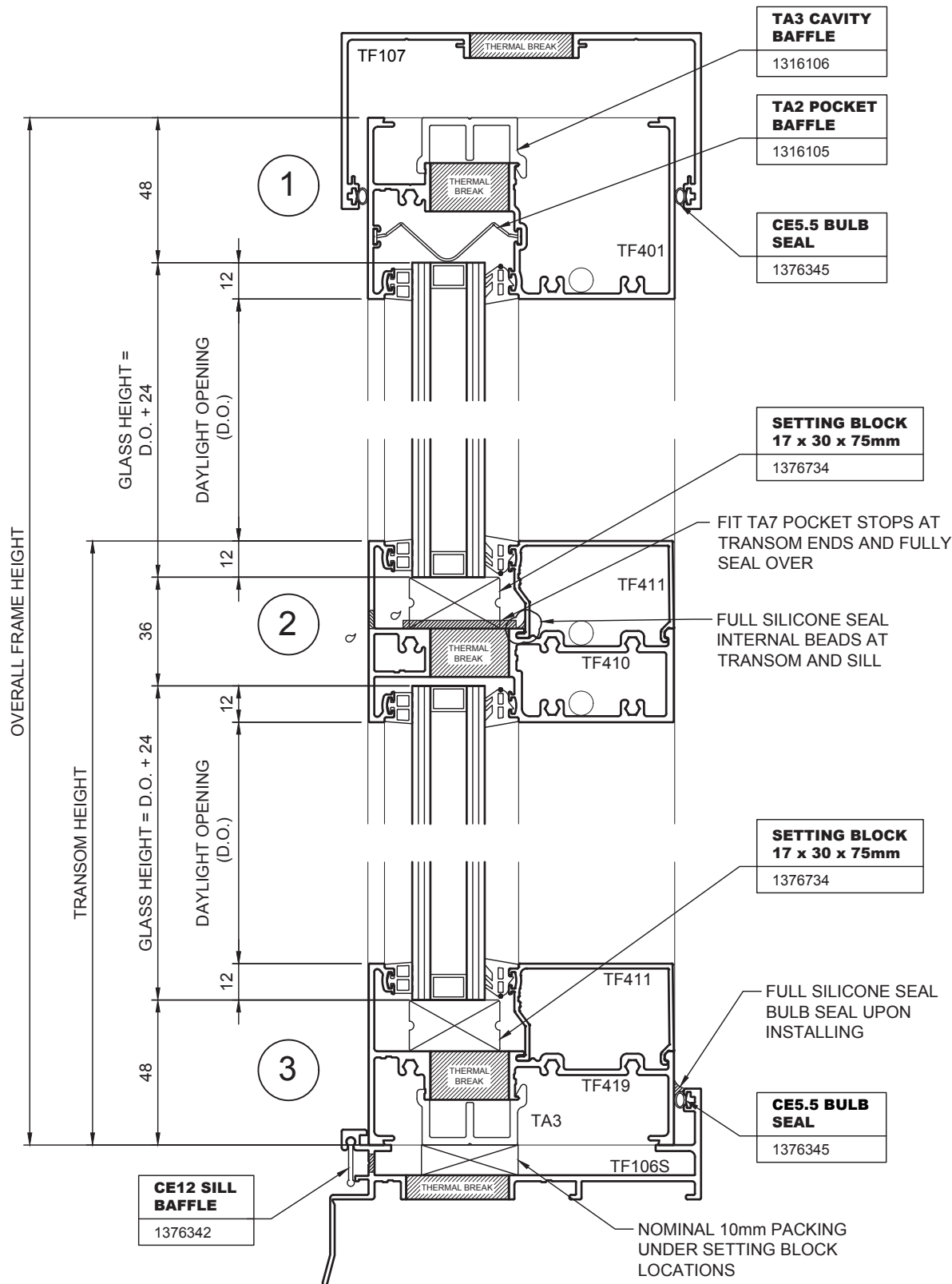
8. Typical Details

Typical Head, Transom and Sill Details - External Glaze



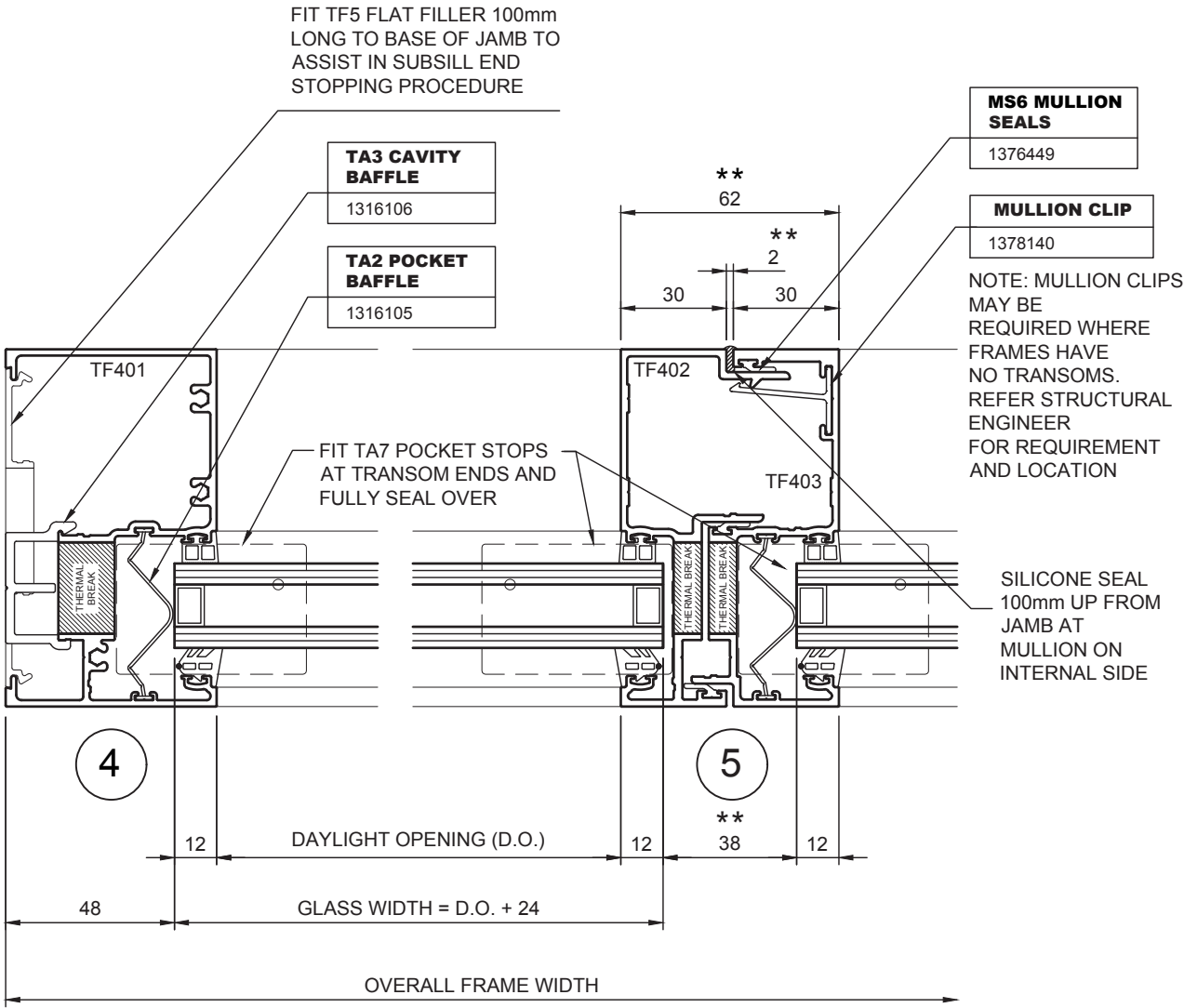
8. Typical Details

Typical Head, Transom and Sill Details - Internal Glaze



8. Typical Details

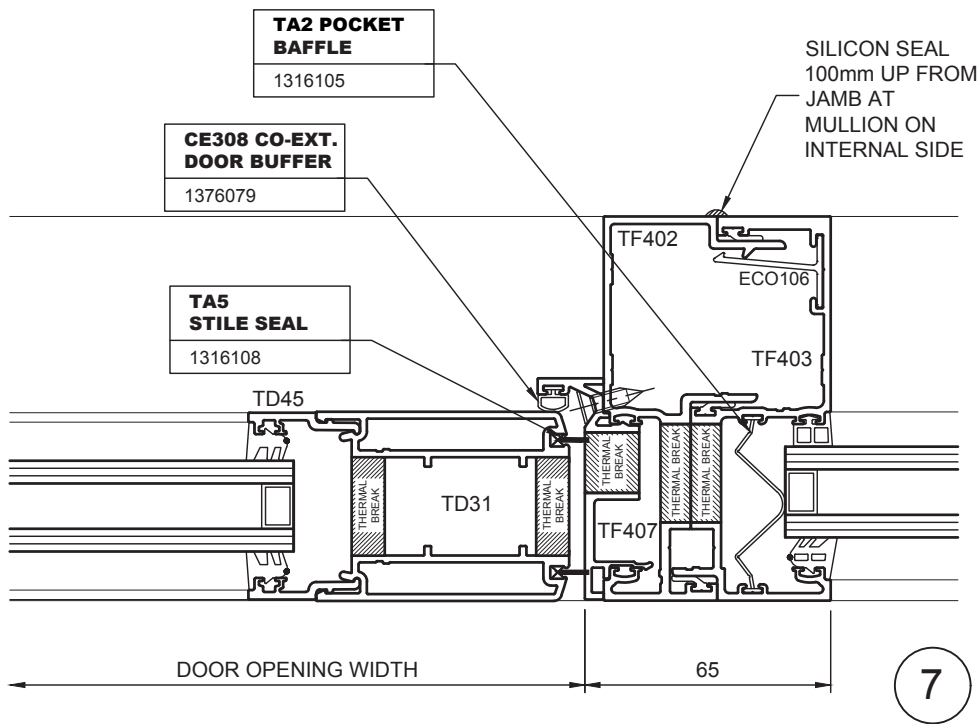
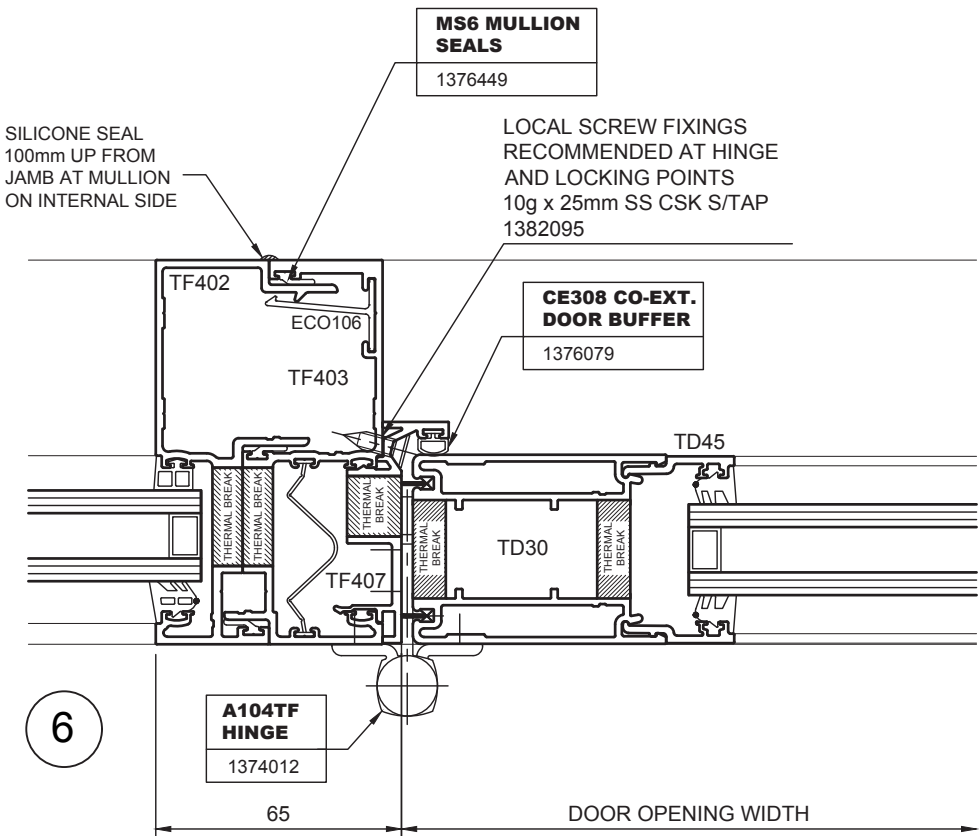
Typical Jamb and Mullion Details



NOMINAL DIMENSIONS ONLY. MAY VARY DUE TO PROJECT REQUIREMENTS

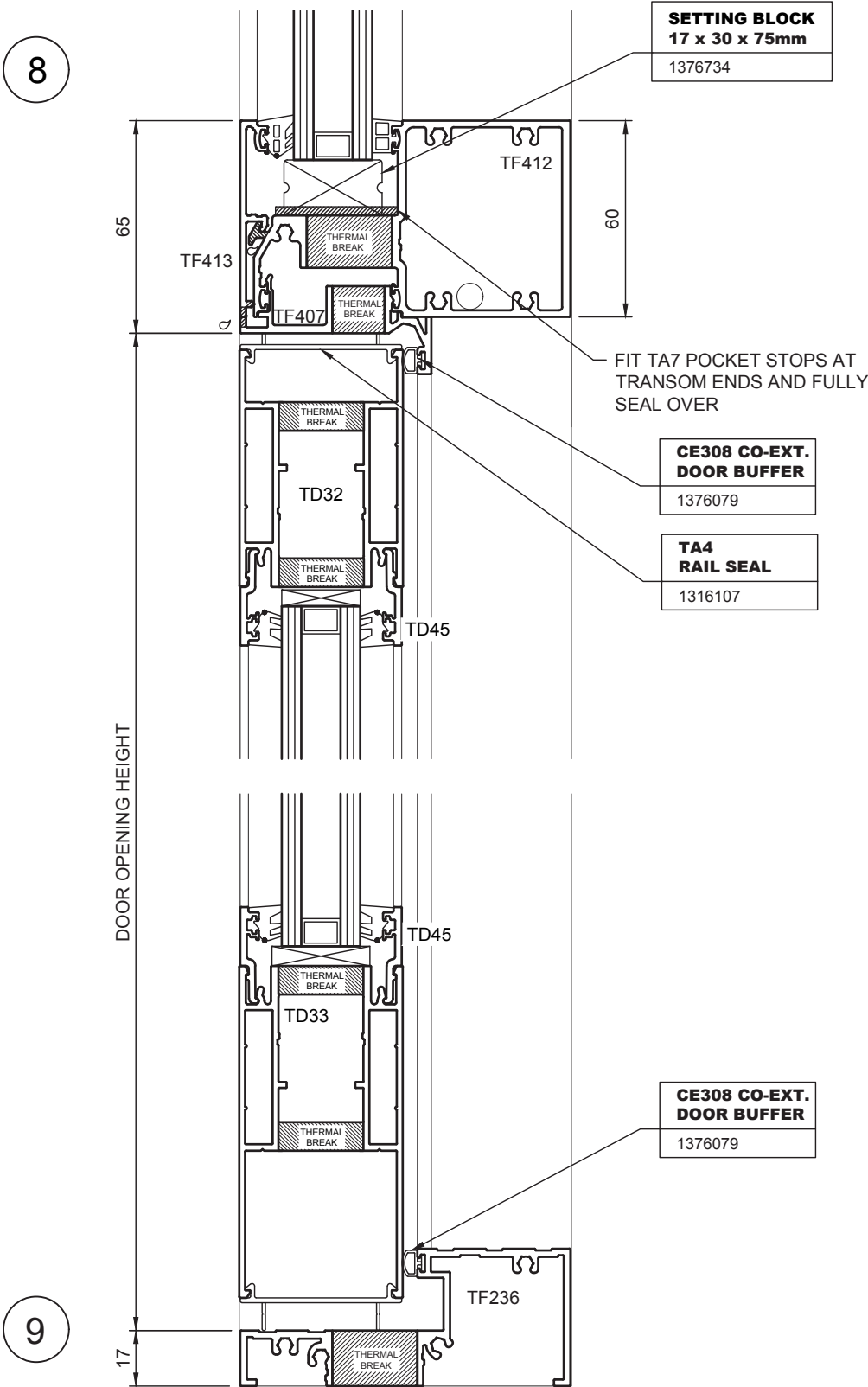
8. Typical Details

Typical Door Jamb Details



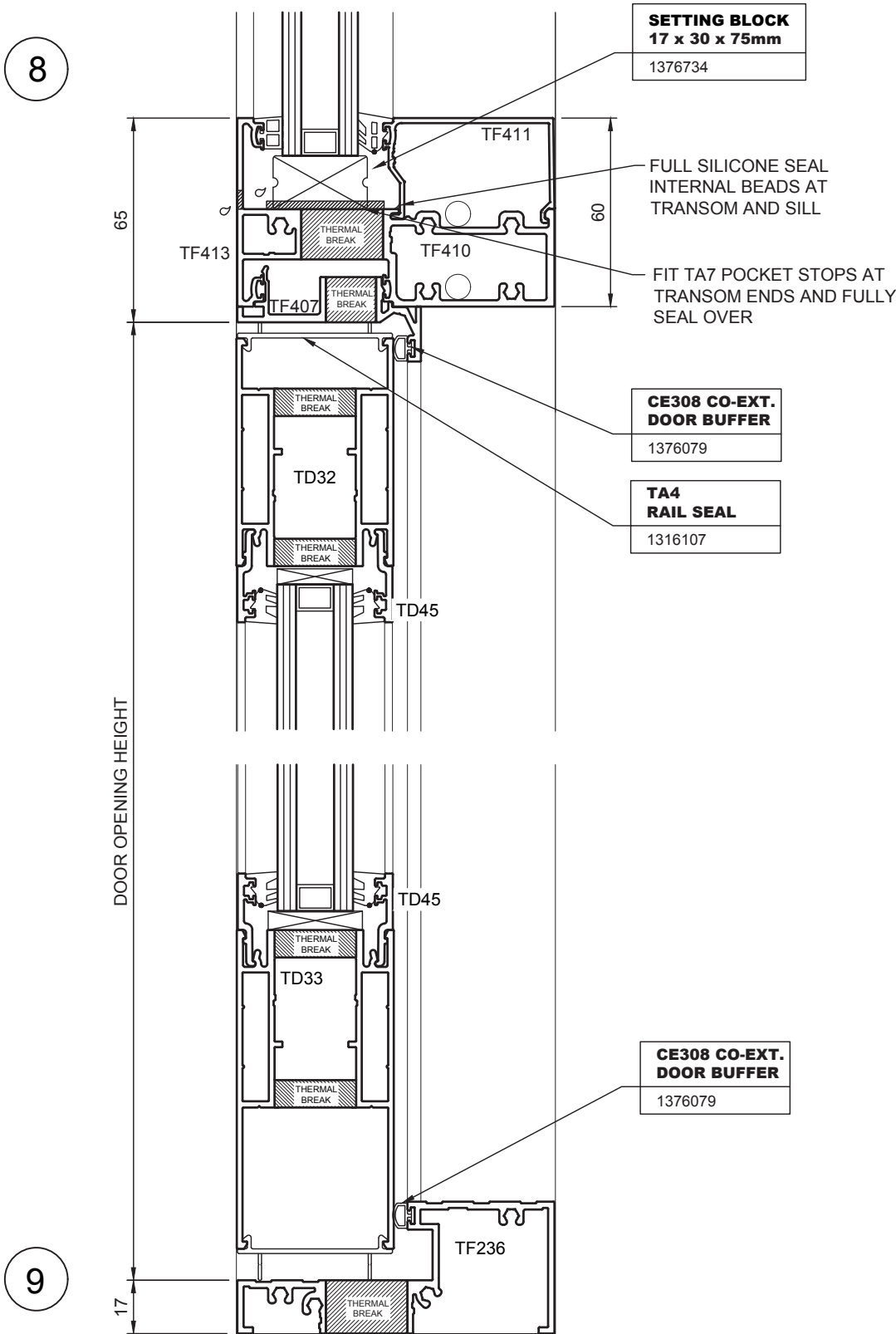
8. Typical Details

Typical Door Head & Threshold Details - External Glaze



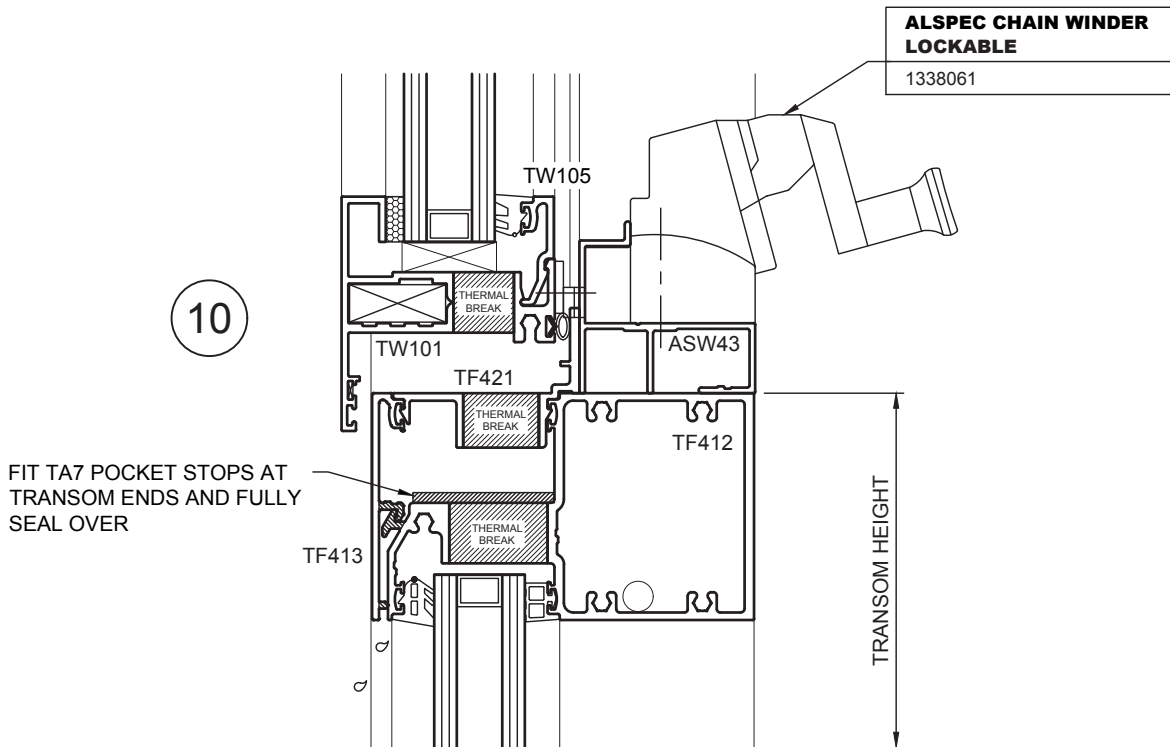
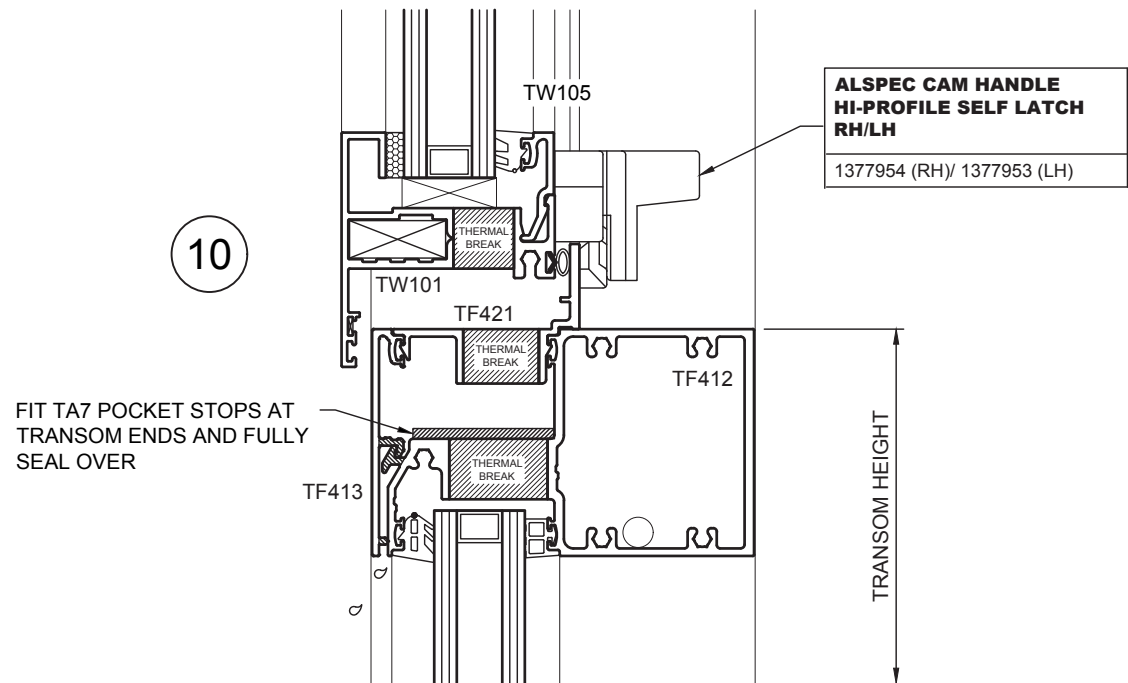
8. Typical Details

Typical Door Head & Threshold Details - Internal Glaze



8. Typical Details

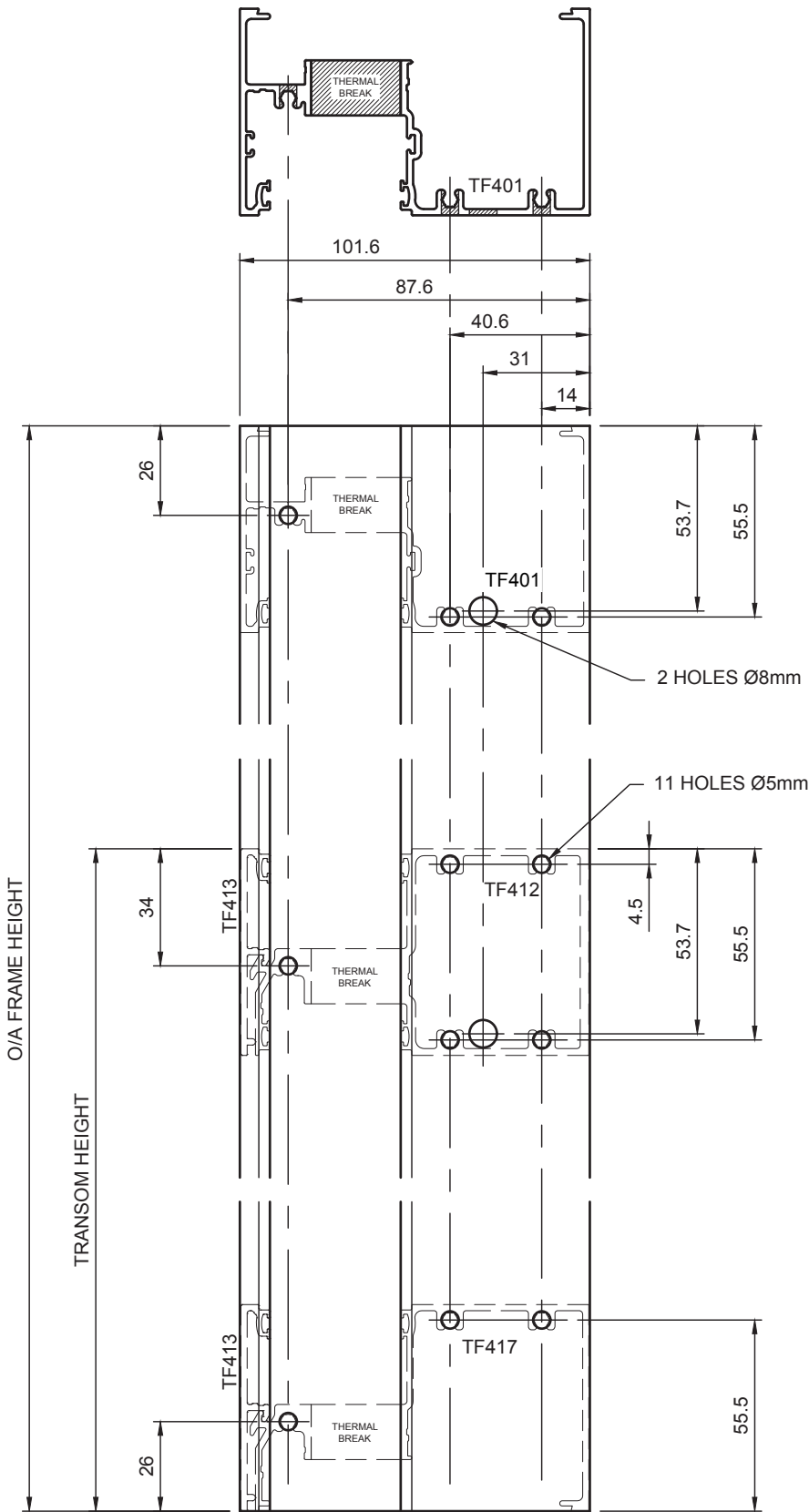
Typical Transom Details - Awning



10. Manufacturing Details

Frame Preparation - Frame/Jamb - External Glaze

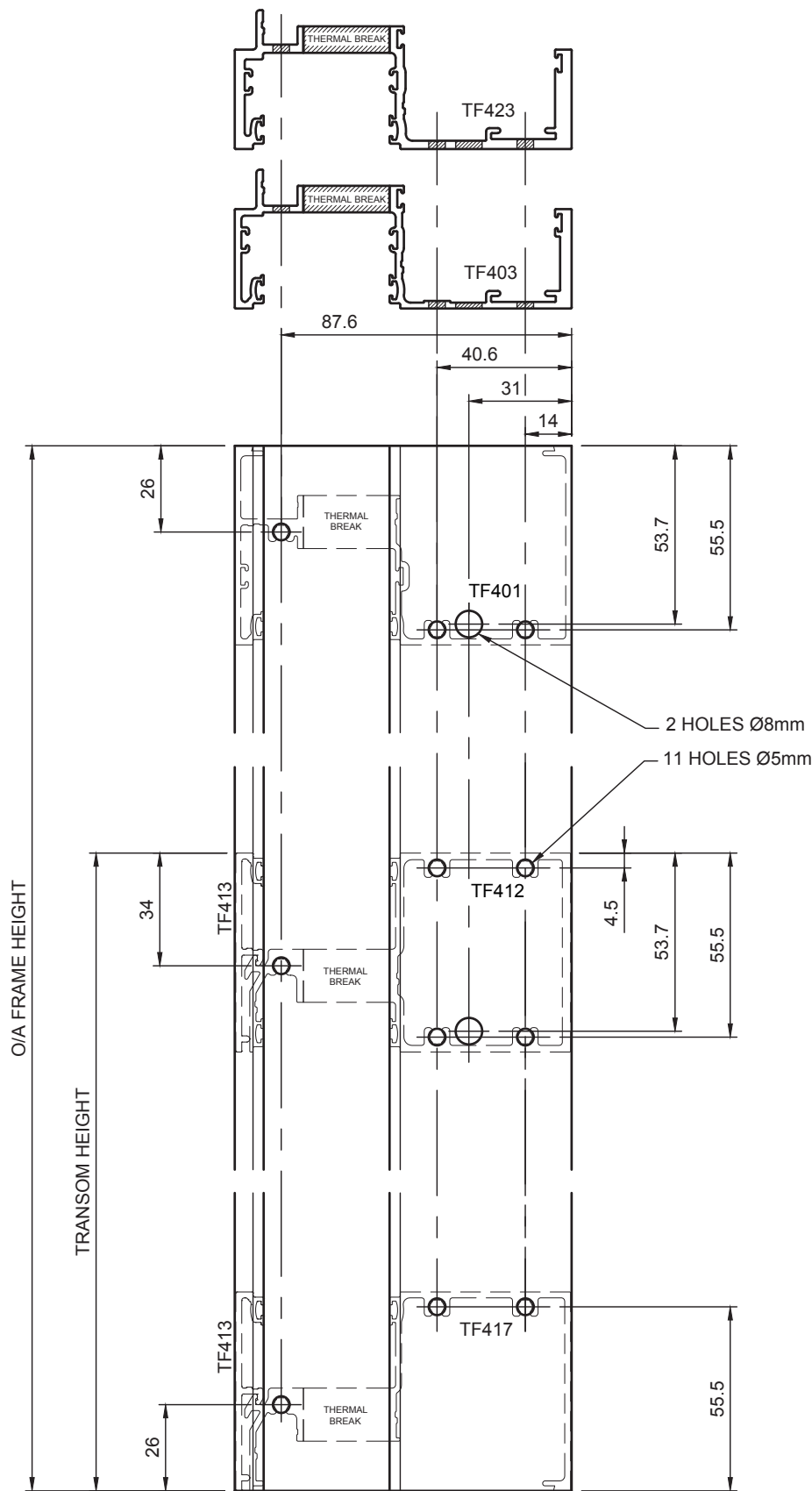
L.H. DRAWN
R.H. OPPOSITE



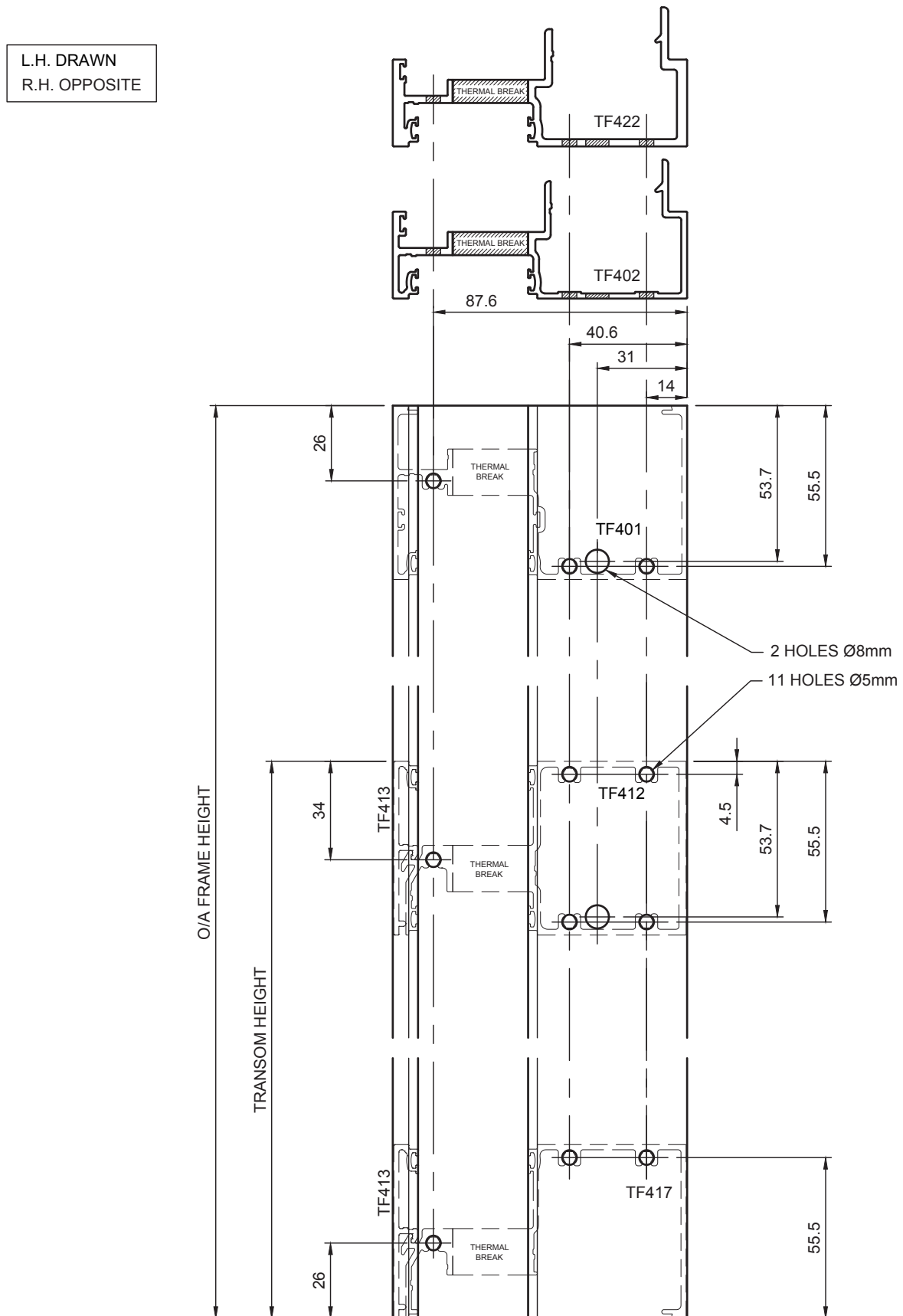
10. Manufacturing Details

Frame Preparation - Deep Pocket Mullions - External Glaze

L.H. DRAWN
R.H. OPPOSITE



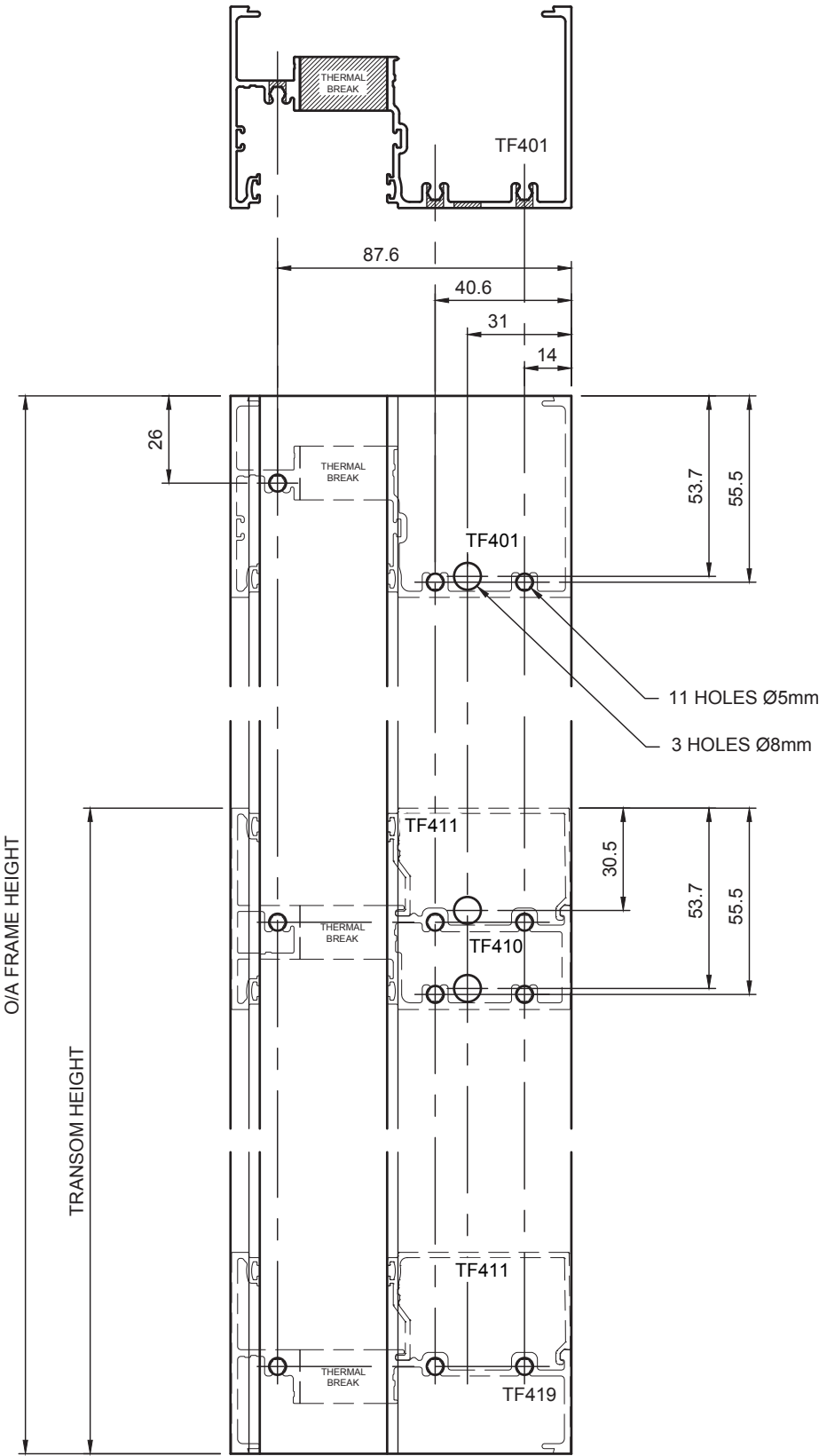
Frame Preparation - Shallow Pocket Mullions - External Glaze



10. Manufacturing Details

Frame Preparation - Frame/Jamb - Internal Glaze

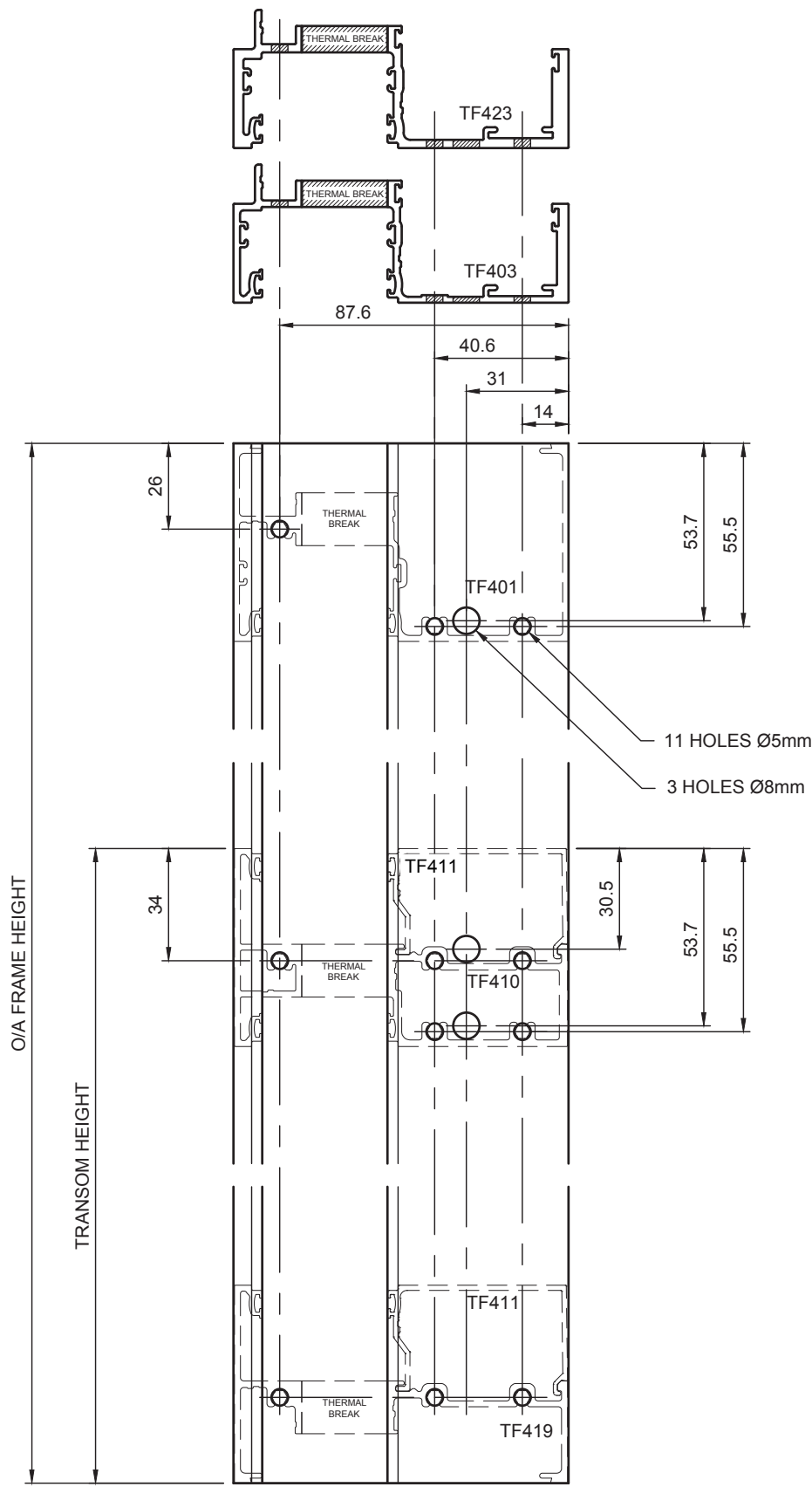
L.H. DRAWN
R.H. OPPOSITE



10. Manufacturing Details

Frame Preparation - Deep Pocket Mullions - Internal Glaze

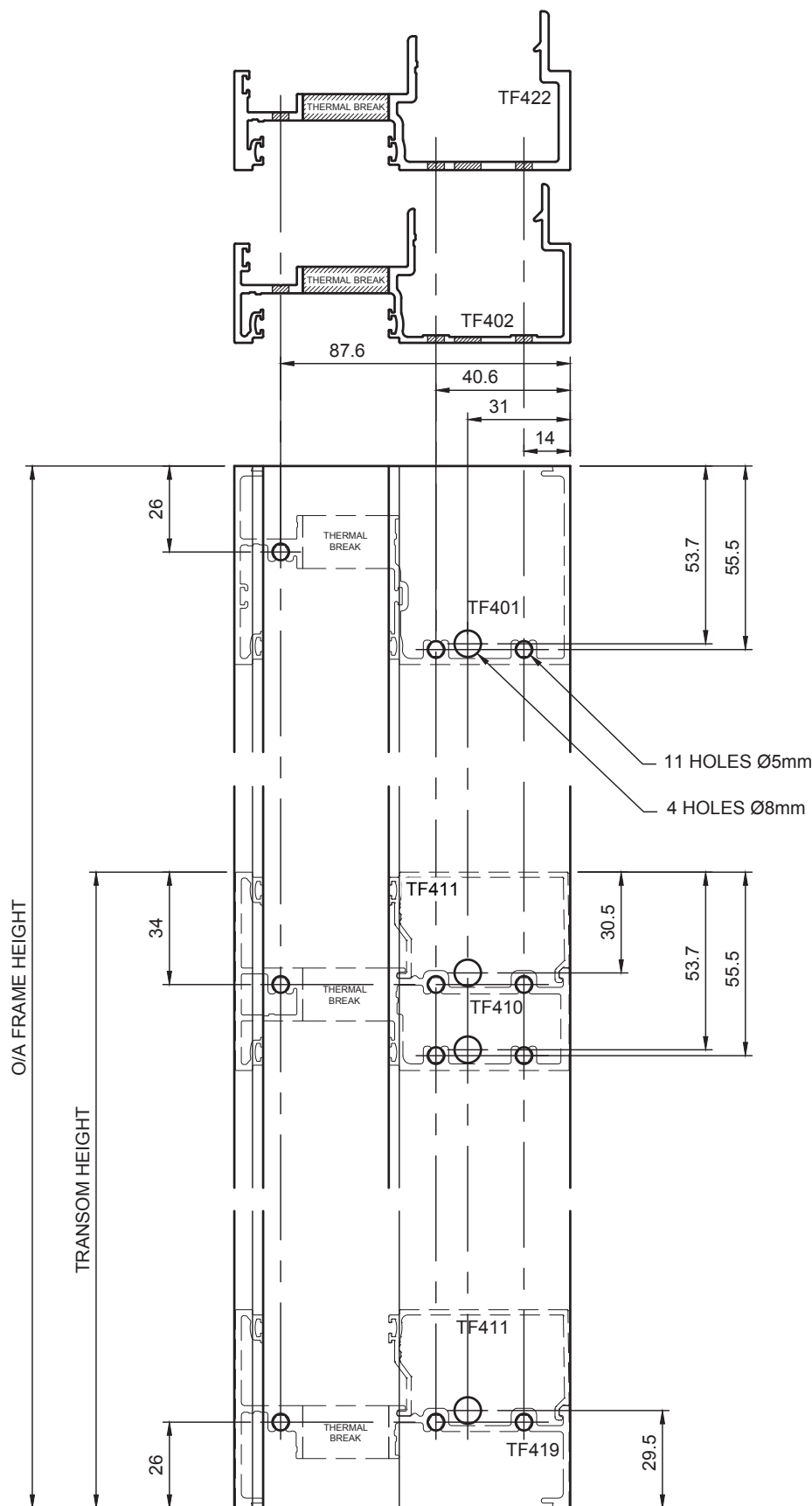
L.H. DRAWN
R.H. OPPOSITE



10. Manufacturing Details

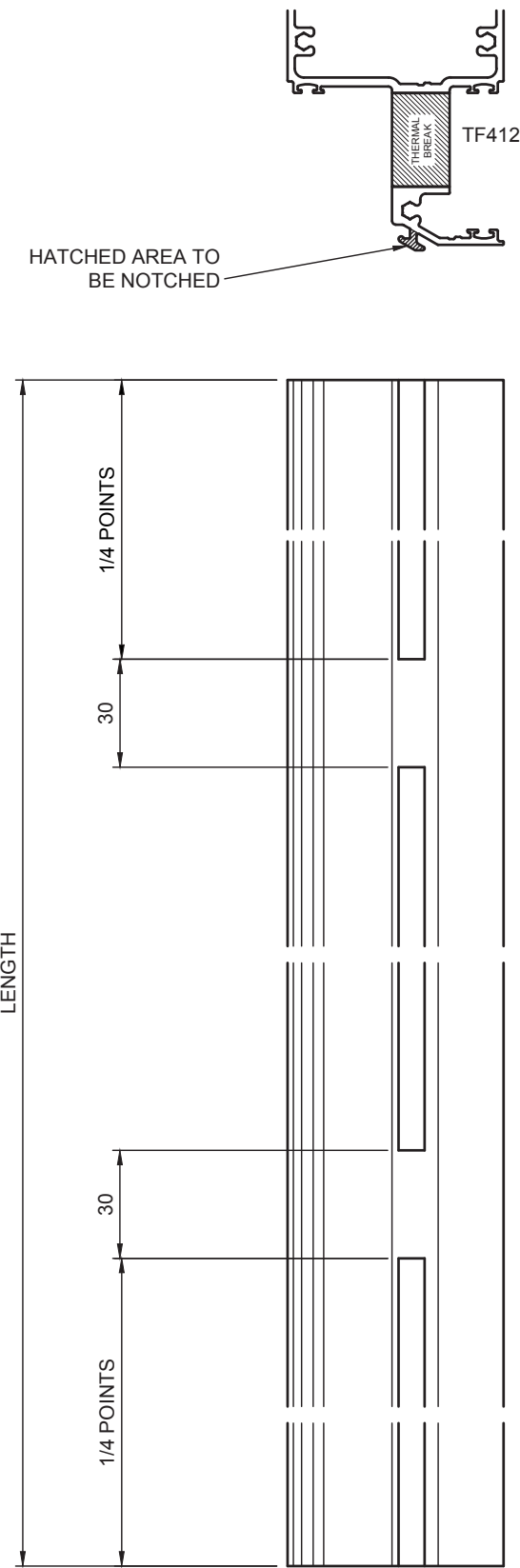
Frame Preparation - Shallow Pocket Mullions - Internal Glaze

L.H. DRAWN
R.H. OPPOSITE



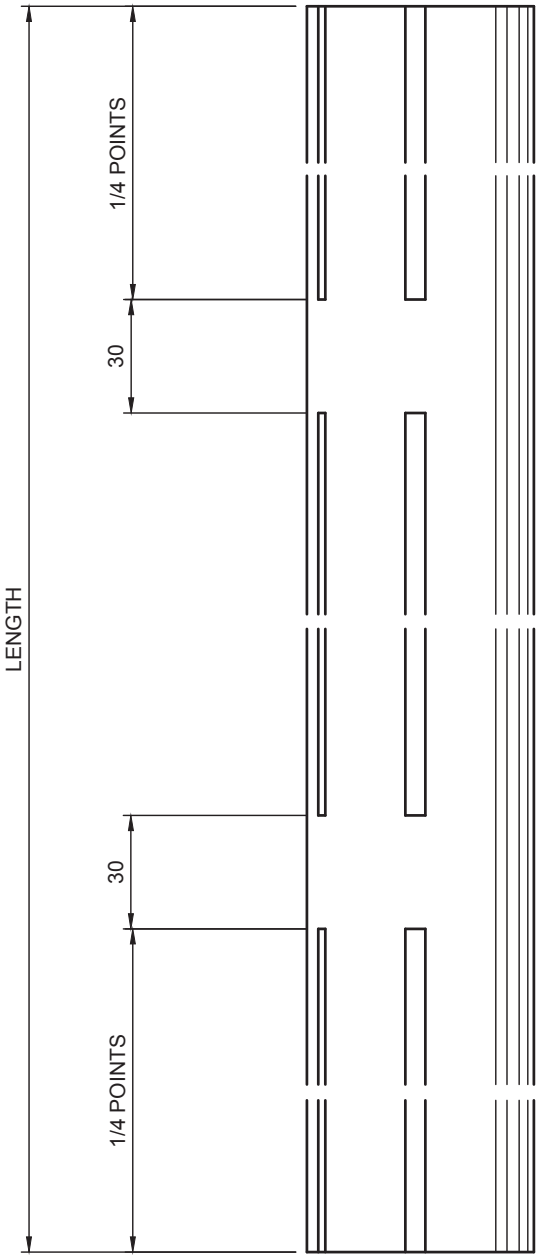
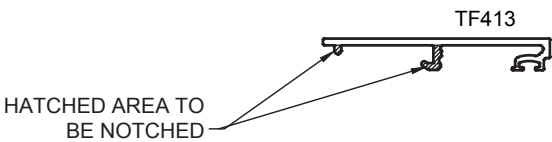
10. Manufacturing Details

Drainage Preparation - External Glaze



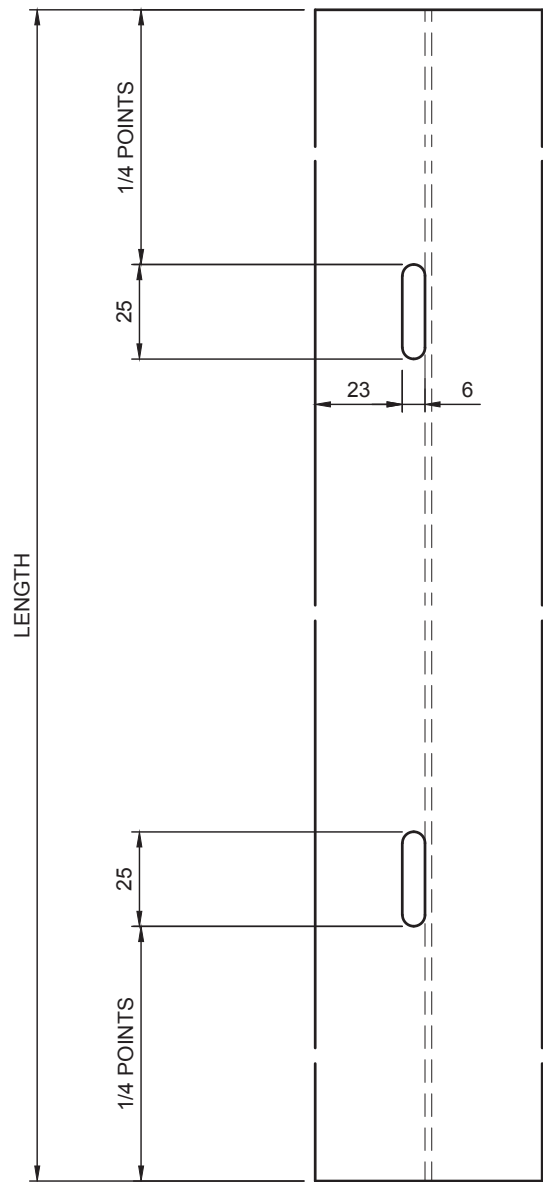
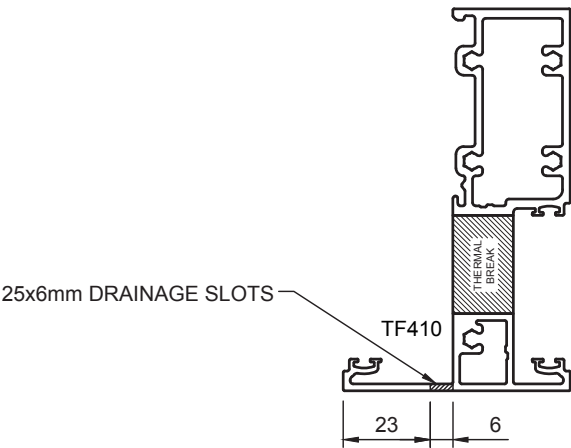
10. Manufacturing Details

Drainage Preparation - External Glaze



10. Manufacturing Details

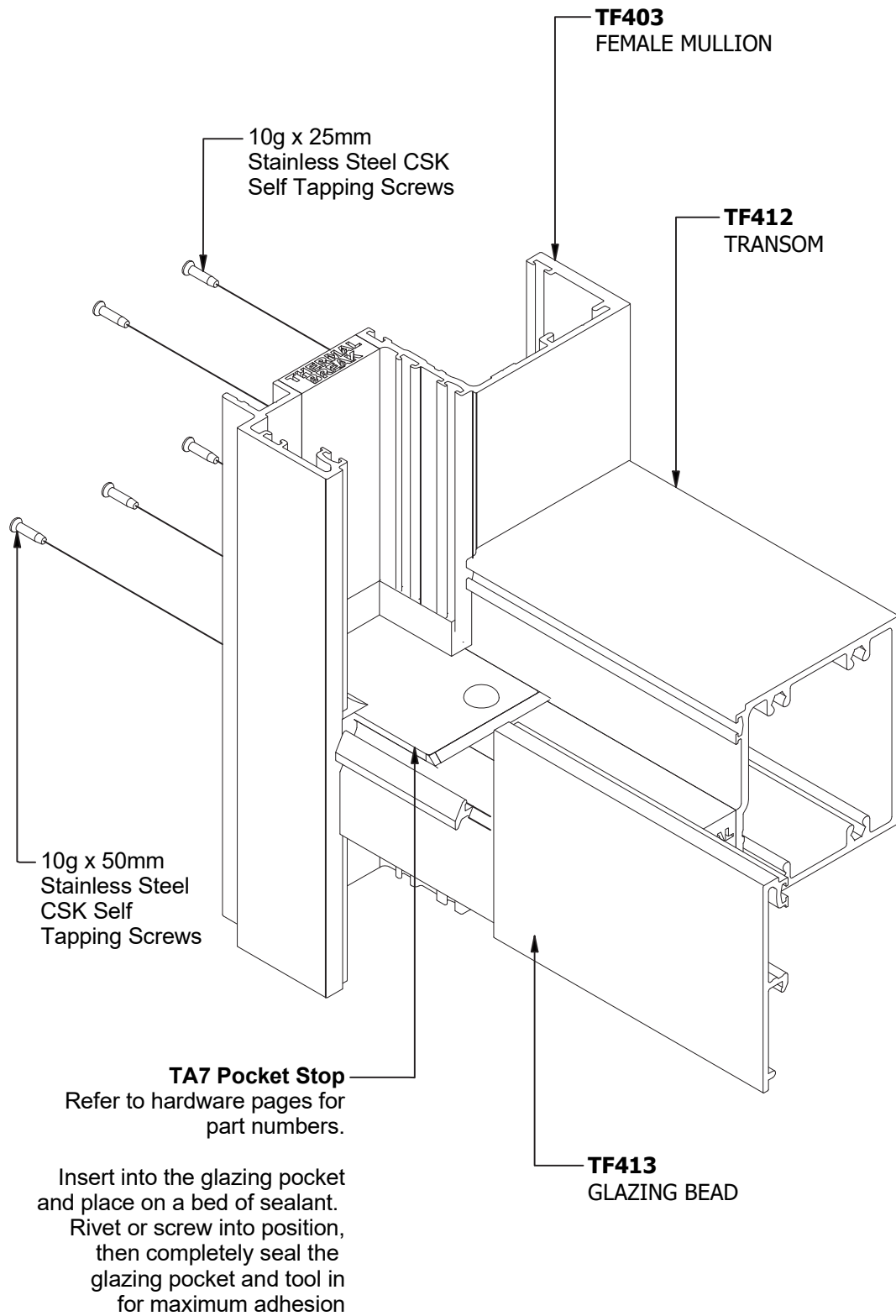
Drainage Preparation - Internal Glaze



NOTE:
FOR TRANSOM WIDTHS
OVER 1300mm ADD AN
ADDITIONAL SLOT ON
TRANSOM CENTRELINE

11. Assembly Details

Assembly and Sealing Details



11. Assembly Details

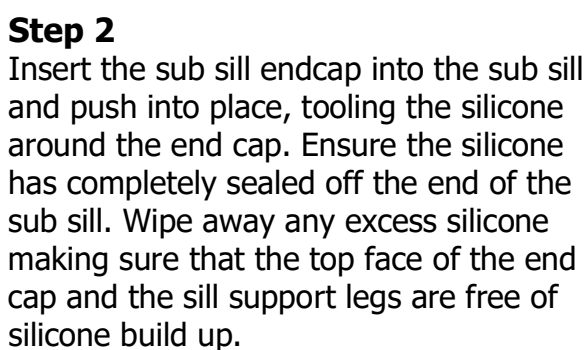
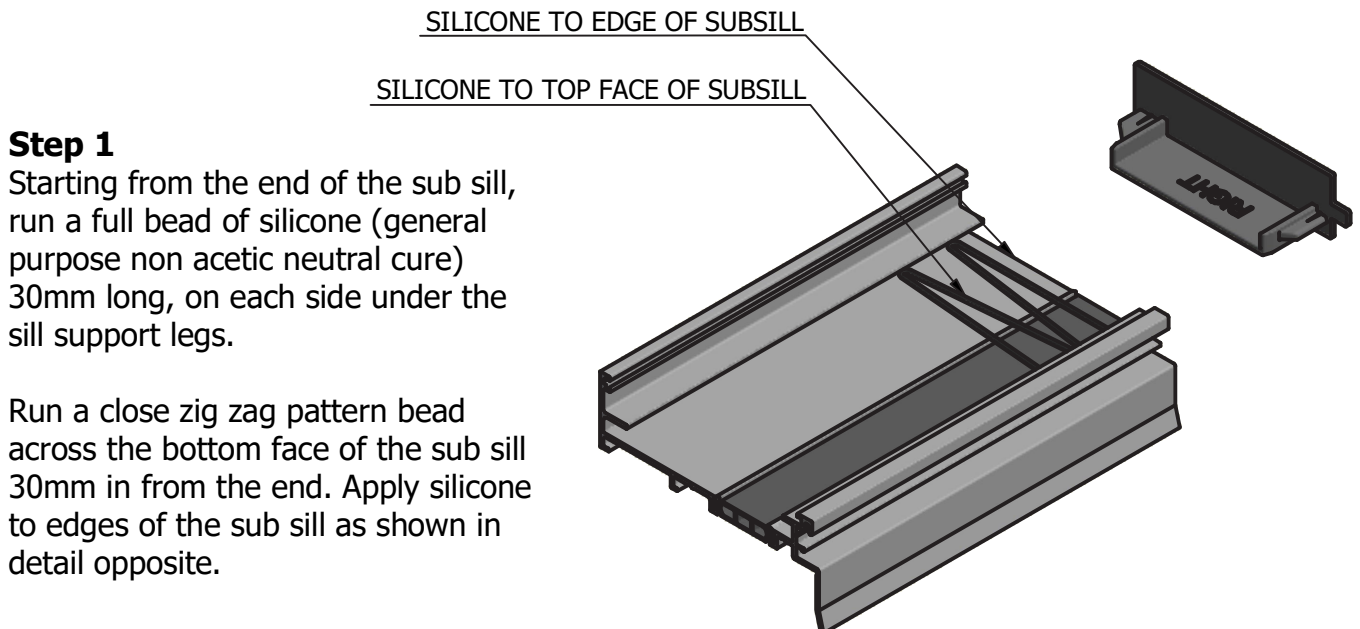
Sub Sill with End Cap

TA19 101.6mm ThermAFrame Sub Sill End Cap is a purpose designed component reducing labour time required for the installation and sealing of TF106S Sub Sill.

Installation time is less than 1 minute per end, with no cutting in of trim angles required.

TA19 101.6mm ThermAFrame Sub Sill End Cap eliminates blow back behind jambs and end walls, also eliminating unnecessary call backs to site to rectify sub sill leaks.

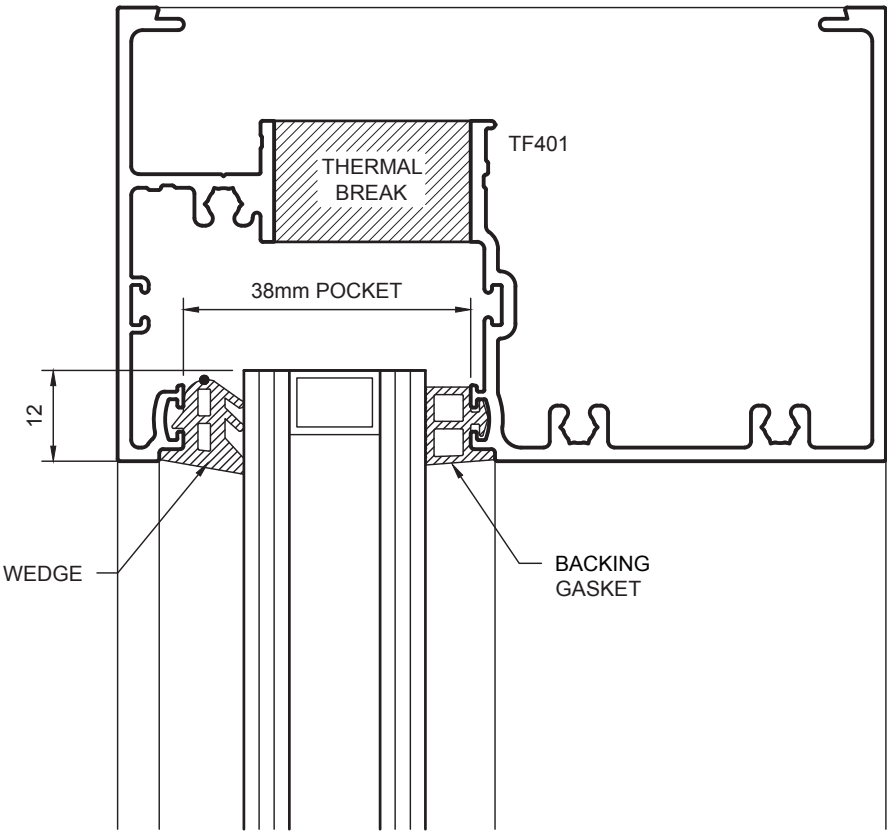
TA19 is available as a set with 1 left and 1 right end.



WIPE AWAY ANY EXCESS SILICONE
ENSURING ALL FACES ARE FULLY SEALED

12. Glazing Details

Glazing Details - Captive

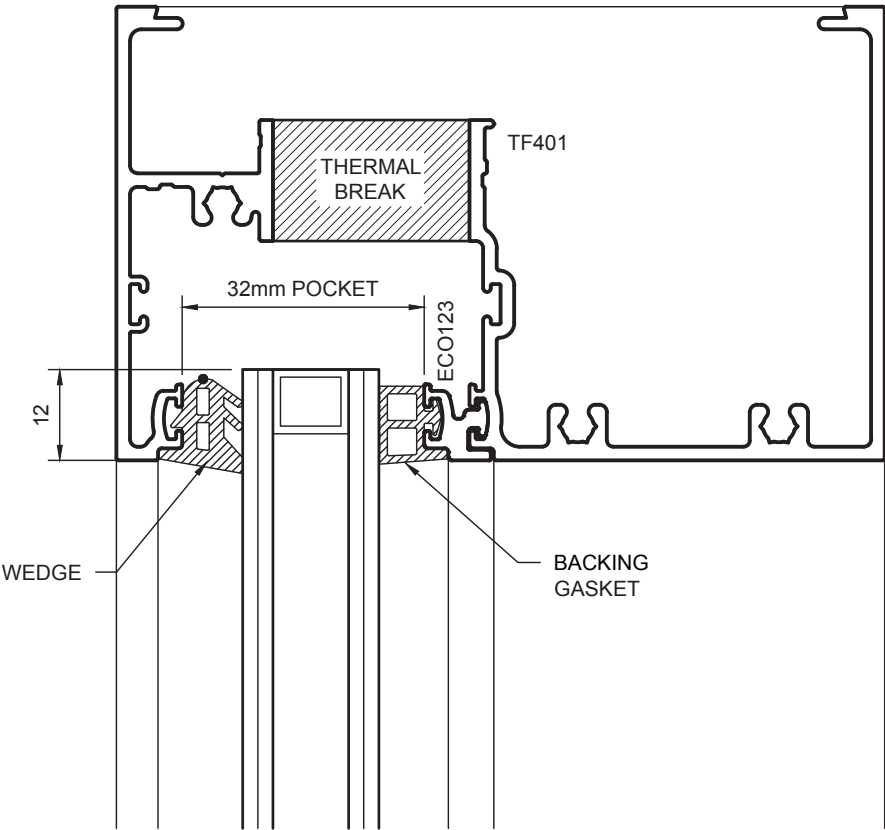


	WEDGE		PUSH IN BACKING GASKET	CO-EXTRUDED BACKING GASKET
GLASS THICKNESS	ID COLOUR	REF. (GAP)	REF. (GAP)	REF. (GAP)
24mm	ORANGE	GR48 (8mm)	GR49 (6mm)	CE49 (6mm)
25mm	RED	GR47 (7mm)	GR49 (6mm)	CE49 (6mm)
28mm	YELLOW	GR46 (6mm)	GR37 (4mm)	CE37 (4mm)
30mm	WHITE	GR44 (4mm)	GR37 (4mm)	CE37 (4mm)
32mm	WHITE	GR44 (4mm)	GR36 (2mm)	CE36 (2mm)

REVERSE GLAZING WEDGE COMBINATIONS FOR INTERNAL GLAZING

12. Glazing Details

Glazing Details - with ECO123 Glazing Adaptor

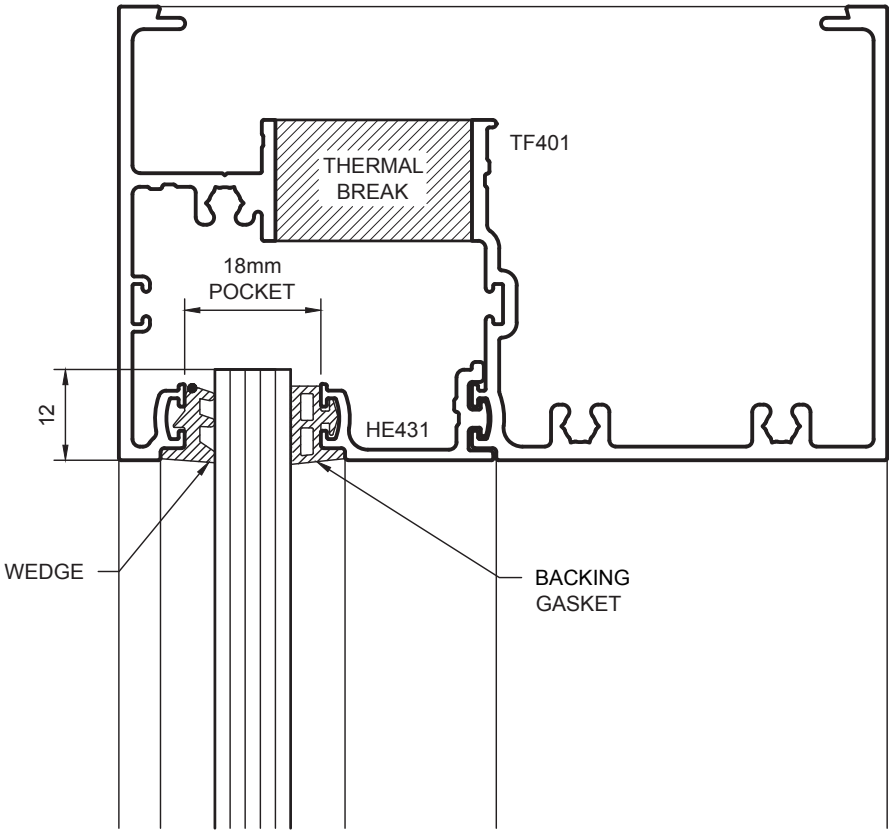


	WEDGE		PUSH IN BACKING GASKET	CO-EXTRUDED BACKING GASKET
GLASS THICKNESS	ID COLOUR	REF. (GAP)	REF. (GAP)	REF. (GAP)
14.52mm	GREEN	GR50 (9mm)	-	CE52S (8.5mm)
16mm	ORANGE	GR48 (8mm)	-	CE52S (8.5mm)
18mm	ORANGE	GR48 (8mm)	GR49 (6mm)	CE49 (6mm)
20mm	YELLOW	GR46 (6mm)	GR49 (6mm)	CE49 (6mm)
22mm	YELLOW	GR46 (6mm)	GR37 (4mm)	CE37 (4mm)

REVERSE GLAZING WEDGE COMBINATIONS FOR INTERNAL GLAZING

12. Glazing Details

Glazing Details - with HE431 Glazing Adaptor



	WEDGE		PUSH IN BACKING GASKET	CO-EXTRUDED BACKING GASKET
GLASS THICKNESS	ID COLOUR	REF. (GAP)	REF. (GAP)	REF. (GAP)
6/6.38mm	YELLOW	GR46 (6mm)	GR49 (6mm)	CE49 (6mm)
8/8.38mm	YELLOW	GR46 (6mm)	GR37 (4mm)	CE37 (4mm)
10/10.38mm	WHITE	GR44 (4mm)	GR37 (4mm)	CE37 (4mm)
12/12.38mm	WHITE	GR44 (4mm)	GR36 (2mm)	CE36 (2mm)

REVERSE GLAZING WEDGE COMBINATIONS FOR INTERNAL GLAZING

13. Care & Maintenance

FRAMING

Your new **ThermAFrame 101.6mm Flush Glazed** frames have been manufactured using the highest quality materials available to the Architectural industry. Constructed from Architectural grade aluminium, these products are highly corrosion resistant and exceptionally strong. With a moderate amount of maintenance, the **ThermAFrame 101.6mm Flush Glazed** frame will retain it's good looks and resist the elements for years to come.

The **ThermAFrame 101.6mm Flush Glazed** frames are the product of extensive research and development and designed to resist corrosion and rusting, but as with all external elements on the building require some maintenance to keep them looking good and performing well. Depending on how harsh the environment elements are, the maintenance period will vary. Refer to recommended maintenance table below.

Your **ThermAFrame 101.6mm Flush Glazed** frames should only ever need to be washed down with a soft bristled brush using warm water and mild detergent. Rinse well with fresh water and remove any detergent residue. Strong detergents and abrasive cleaners should never be used to clean the **ThermAFrame 101.6mm Flush Glazed** frames as they may scratch or damage the surface finish.

MAINTENANCE PERIOD TABLE

ENVIRONMENT	RECOMMENDED MAXIMUM MAINTENANCE INTERVAL
Mild	Six Months
Moderate	Three Months
Tropical/Severe	One Month

Environmental Definitions:

Mild – Being rural, away from the coast and remote from industry and urban activity.

Moderate – Being mainly urban, inland and away from heavy industry.

Tropical – Being coastal/marine, subject to salt deposition and within 15km of the Eastern coast or 10km of the Western coast of Australia.

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