ThermAFrame
150mm Flush Glazed Framing

Technical Manual

February 2024 | ISSUE D

EVERYTHING ALUMINIUM & HARDWARE

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Contents

1. Technical Manual Release Notes

This page is intended to record all changes to the **THERMAFRAME 150mm FLUSH GLAZED FRAMING** technical manual pages.

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

ISSUE	DATE	Amendment Description	Refer to Tech Memo #
A	03/2016	Technical manual initial release	
B	03/2019	Updated and amended extrusion and hardware pages	
C	04/2020	Technical manual update & re-release	353
D	09/2020	Included TF490 & TF491 in Extrusions and inlcuded additional mullion details in Typical Details	402

THERMAFRAME
THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

2. Technical Specifications

ALUMINIUM
Aluminium frames should be manufactured using Alspec's **THERMAFRAME 150mm 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 150mm FLUSH GLAZED FRAMING** to suit standard & captive glazing options, refer glazing pages 12.1 and 12.3.

Glazing wedges shall be Alspec's wedges and channels for **THERMAFRAME 150mm FLUSH GLAZED FRAMING** system to suit standard and captive glazing options, refer to glazing pages in Alspec Technical Manual. For window & door systems requiring a co-extruded captive gasket on the external side of the glazed pocket, Santoprene is the recommended material to be applied.

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) or AS4666 (Insulated Glass Units).

Fabricators of the THERMAFRAME 150mm 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
STEP 1 →	2400	S	1770	1450	1250	[illegible]	1010
		U	3440	2810	2410	[illegible]	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
Ixx = xxx x xxx mm4	Panel Width		800	1000	1200	1400	1600

← STEP 3

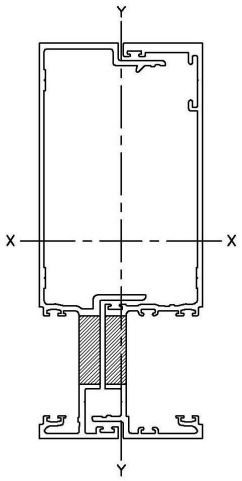
STEP 2 ↑

THERMAFRAME
THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

3. Loading Tables

TF462 + TF463 Split Combination

Max Stress = 110Mpa S = Serviceability limit state l/250 U = Ultimate limit state

TF462 + TF463 SPLIT COMBINATION	Panel Height		Maximum Design Pressure (Pa)						
	4500	S	1430	960	730	590			
		U	3270	2200	1660	1350			
	4200	S	1760	1180	900	730	620	550	
		U	3760	2530	1920	1560	1320	1160	
	3900	S	2200	1480	1130	920	790	700	630
		U	4370	2940	2240	1820	1550	1370	1240
	3600	S	2800	1890	1450	1190	1020	910	830
		U	5140	3460	2640	2160	1850	1640	1490
	3300	S	3000	2470	1900	1560	1350	1210	1120
		U	6130	4140	3170	2600	2240	2000	1840
	3000	S	3000	3000	2550	2120	1850	1680	1570
		U	7430	5040	3870	3200	2770	2500	2330
	2700	S	3000	3000	3000	2980	2640	2430	2320
		U	9000	6260	4840	4030	3540	3240	3070
	2400	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	8010	6250	5270	4700	4390	4290
	2100	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	8390	7210	6600	6410	6280
	1800	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
Ixx = 3666 x 10^3 mm^4	**Mullion centres**		**600**	**900**	**1200**	**1500**	**1800**	**2100**	**2400**

Tables are based on theoretical section properties

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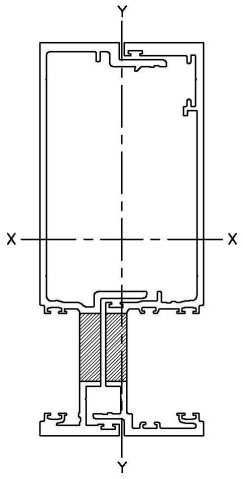
3. Loading Tables

TF482 + TF483 H.D. Split Mullion Combination

Max Stress = 110Mpa S = Serviceability limit state l/250 U = Ultimate limit state

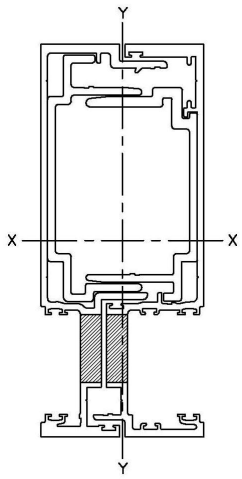
TF482 + TF483 H.D. SPLIT MULLION COMBINATION	Panel Height		Maximum Design Pressure (Pa)						
	4500	S	1820	1230	930	760	640	560	510
		U	4310	2890	2190	1780	1510	1320	1180
	4200	S	2250	1510	1150	940	800	700	630
		U	4950	3330	2530	2050	1740	1530	1380
	3900	S	2810	1900	1440	1180	1010	890	810
		U	5750	3870	2940	2400	2040	1800	1630
	3600	S	3000	2420	1850	1520	1310	1160	1060
		U	6760	4560	3470	2840	2430	2150	1960
	3300	S	3000	3000	2430	2000	1730	1550	1440
		U	8060	5450	4170	3420	2950	2630	2420
	3000	S	3000	3000	3000	2710	2370	2150	2010
		U	9000	6630	5090	4210	3650	3290	3060
	2700	S	3000	3000	3000	3000	3000	3000	2960
		U	9000	8240	6370	5310	4660	4260	4040
	2400	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	8220	6930	6180	5780	5650
	2100	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	8690	8440	8720
	1800	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
Ixx = 4686 x 10^3 mm^4	**Mullion centres**		**600**	**900**	**1200**	**1500**	**1800**	**2100**	**2400**

Tables are based on theoretical section properties

3. Loading Tables

TF482 & TF483 + TF488 & TF489 H.D. Split Mullion & Splice

Max Stress = 110Mpa S = Serviceability limit state l/250 U = Ultimate limit state

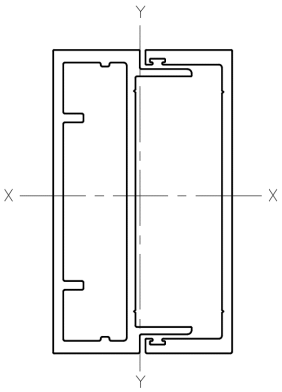
TF482 & TF483 + TF488 & TF489 H.D. SPLIT MULLION & SPLICE	Panel Height		Maximum Design Pressure (Pa)						
	4500	S	2220	1490	1130	920	780	690	620
		U	5250	3530	2670	2170	1840	1610	1440
	4200	S	2740	1840	1400	1140	970	860	770
		U	6040	4060	3080	2500	2130	1870	1680
	3900	S	3000	2310	1760	1440	1230	1090	990
		U	7010	4720	3590	2920	2490	2200	1990
	3600	S	3000	2950	2260	1850	1590	1420	1300
		U	8240	5560	4240	3460	2970	2630	2390
	3300	S	3000	3000	2960	2440	2110	1890	1750
		U	9000	6640	5080	4170	3590	3210	2950
	3000	S	3000	3000	3000	3000	2890	2620	2450
		U	9000	8080	6210	5130	4450	4010	3730
	2700	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	7770	6470	5680	5190	4920
	2400	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	8450	7530	7040	6890
	2100	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
	1800	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	9000	9000
Ixx = 5711 x 10^3 mm^4	**Mullion centres**		**600**	**900**	**1200**	**1500**	**1800**	**2100**	**2400**

Tables are based on theoretical section properties

3. Loading Tables

TF490 + TF491 Combination

Max Stress = 110Mpa S = Serviceability limit state l/250 U = Ultimate limit state

TF490 + TF491 COMBINATION	Panel Height		Maximum Design Pressure (Pa)						
	3900	S	1030	830	700				
		U	3210	2590	2180				
	3600	S	1320	1060	900	780	700		
		U	3780	3050	2570	2230	1990		
	3300	S	1720	1390	1180	1030	920	840	780
		U	4510	3650	3080	2690	2400	2180	2010
	3000	S	2300	1870	1590	1390	1250	1150	1070
		U	5480	4450	3770	3300	2960	2700	2510
	2700	S	3180	2590	2210	1960	1770	1640	1540
		U	6810	5540	4720	4150	3740	3450	3230
	2400	S	4570	3750	3230	2870	2630	2460	2350
		U	8690	7110	6090	5390	4910	4580	4350
	2100	S	6920	5720	4980	4490	4170	3980	3890
		U	9000	9000	8180	7330	6780	6430	6270
Ixx = 2266 x 10^3 mm^4	**Mullion centres**		**800**	**1000**	**1200**	**1400**	**1600**	**1800**	**2000**

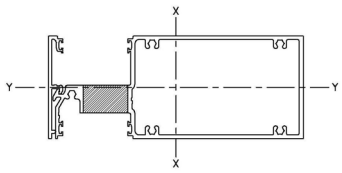
Tables are based on theoretical section properties

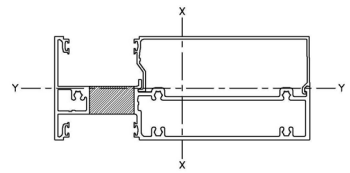
THERMAFRAME
THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

3. Loading Tables

TF472 + TF413 External Glaze Transom & TF470 + TF471 Internal Glaze Transom

Max Stress = 110Mpa S = Serviceability limit state l/250 U = Ultimate limit state

TF472 + TF413 EXT GLAZE TRANSOM	Transom Centres		Maximum Design Loads (Pa)						
	1600	S	3000	3000	3000	3000	3000	2980	2010
		U	9000	9000	9000	8050	5400	3910	2980
	1400	S	3000	3000	3000	3000	3000	3000	2210
		U	9000	9000	9000	8490	5840	4300	3310
	1200	S	3000	3000	3000	3000	3000	3000	2510
		U	9000	9000	9000	9000	6520	4850	3760
	1000	S	3000	3000	3000	3000	3000	3000	2930
		U	9000	9000	9000	9000	7540	5660	4420
	800	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	6930	5430
	600	S	3000	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	6930	5430
	Max Kg		200	200	200	200	135	90	60
Ixx = 2582 x 10^3 mm^4 Iyy = 512 x 10^3 mm^4	**Transom length**		**900**	**1200**	**1500**	**1800**	**2100**	**2400**	**2700**

TF470 + TF471 INTERNAL GLAZE TRANSOM	Transom Centres		Maximum Design Loads (Pa)					
	1600	S	3000	3000	3000	3000	3000	
		U	9000	9000	9000	7160	4800	
	1400	S	3000	3000	3000	3000	3000	
		U	9000	9000	9000	7550	5200	
	1200	S	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	8250	5790	4310
	1000	S	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	6700	5030
	800	S	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	8140	6160
	600	S	3000	3000	3000	3000	3000	3000
		U	9000	9000	9000	9000	9000	8080
	Max Kg		200	200	145	85	55	35
Ixx = 2656 x 10^3 mm^4 Iyy = 201 x 10^3 mm^4	**Transom length**		**900**	**1200**	**1500**	**1800**	**2100**	**2400**

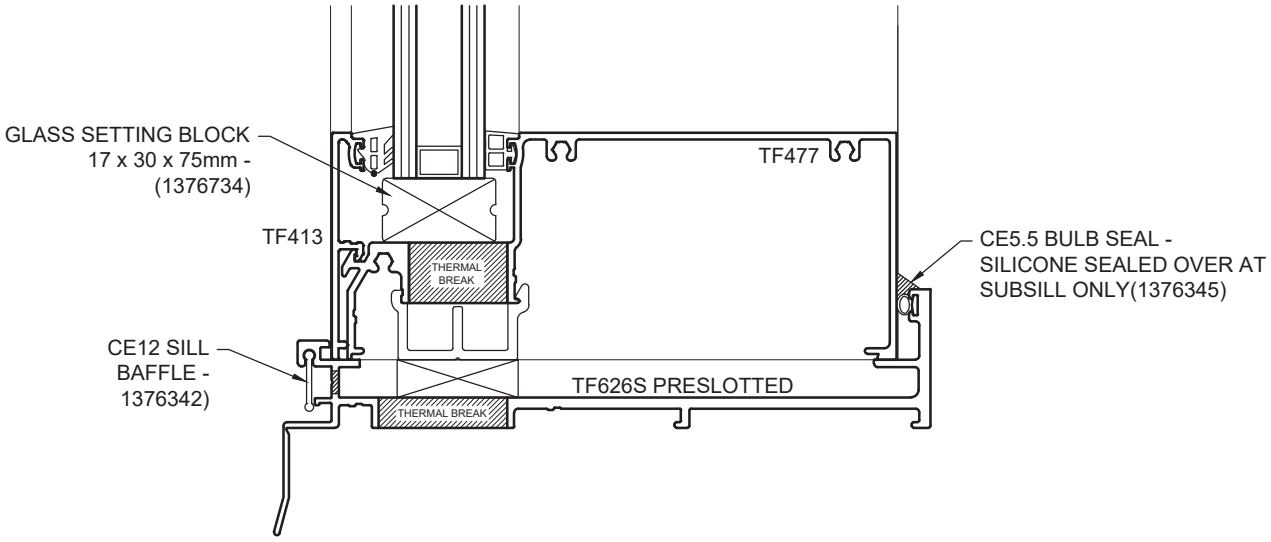
Tables are based on theoretical section properties

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:	AS15.273
SYSTEM CONFIGURATION	THERMAFRAME 150mm FLUSH GLAZED with TF462 & TF463 MULLION FIXED/ FIXED
TEST SAMPLE SIZE	2.7m (H) x 2.46m (W)
SERVICEABILITY LOAD	+/- 2.86 kPa
ULTIMATE LOAD	+/- 4.15 kPa
WATER PENETRATION	406 Pa
AIR INFILTRATION @ 75Pa	+ 0.05 L/s/ms² - 0.04 L/s/ms²

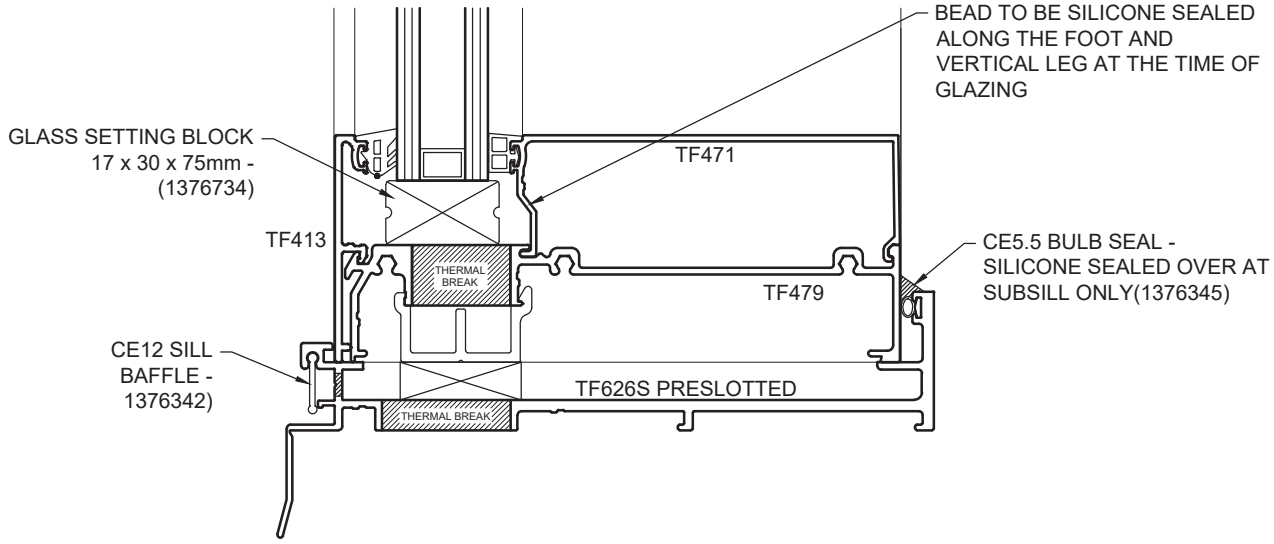


DISCLAIMER:
Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

AS2047 - Fixed/ Fixed over Fixed/ Fixed

TEST REPORT:	AS15.274
SYSTEM CONFIGURATION	THERMAFRAME 150mm FLUSH GLAZED with TF462 & TF463 MULLIONS with INTERNALLY GLAZED SILL & TRANSOM FIXED/ FIXED over FIXED/ FIXED
TEST SAMPLE SIZE	2.7m (H) x 2.46m (W)
SERVICEABILITY LOAD	+/- 3 kPa
ULTIMATE LOAD	+/- 4.63 kPa
WATER PENETRATION	702 Pa
AIR INFILTRATION @ 75Pa	+ 0.01 L/s/ms² - 0.02 L/s/ms²



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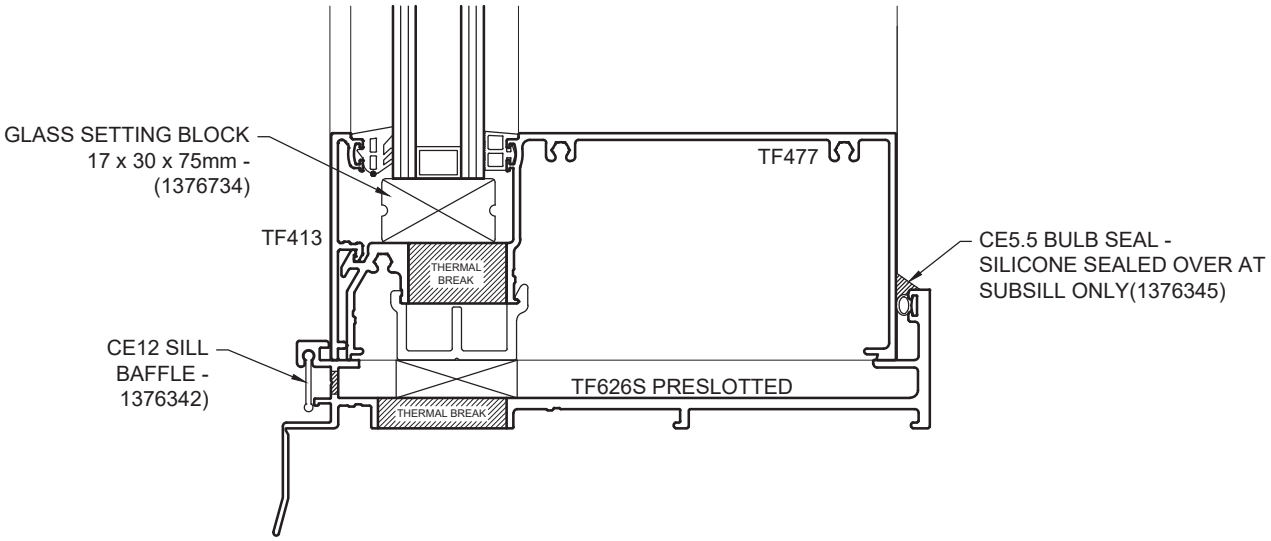
4. Test Summary

AS2047 - Fixed/ Fixed

TEST REPORT:	AS15.276
SYSTEM CONFIGURATION	THERMAFRAME 150mm FLUSH GLAZED with TF482 & TF483 H.D. MULLIONS FIXED/ FIXED
TEST SAMPLE SIZE	2.7m (H) x 2.46m (W)
SERVICEABILITY LOAD	+/- 3 kPa
ULTIMATE LOAD	+/- 5.27 kPa
WATER PENETRATION	709 Pa
AIR INFILTRATION @ 75Pa	+ 0.01L/s/ms² - 0.02L/s/ms²

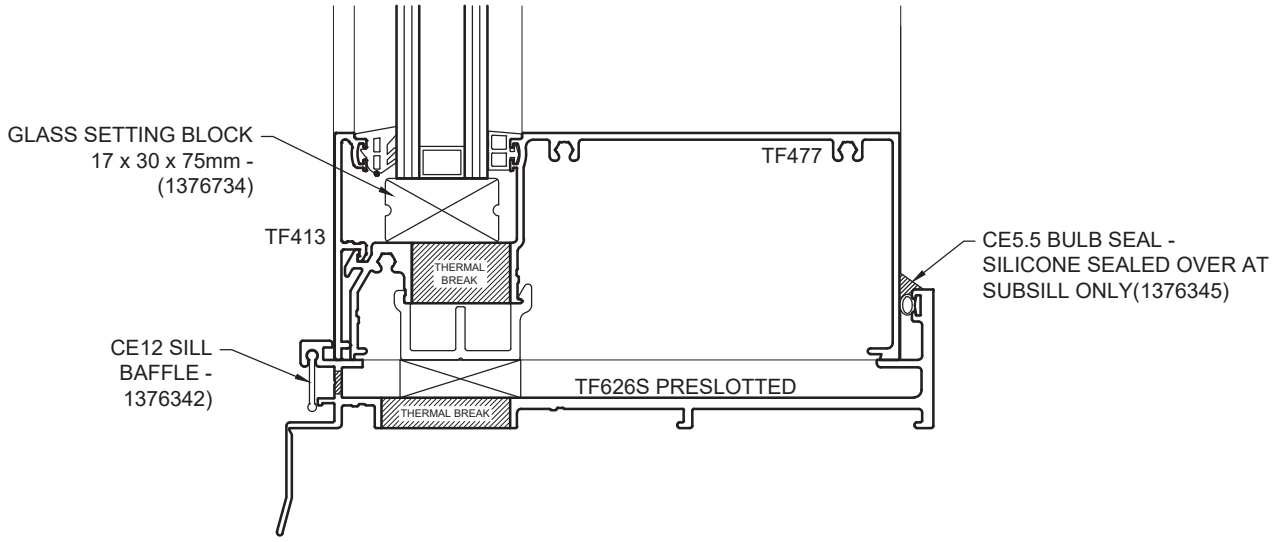


DISCLAIMER:
Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

AS2047 - Awning/ Fixed over Fixed/ Fixed

TEST REPORT:	AS15.277
SYSTEM CONFIGURATION	THERMAFRAME 150mm FLUSH GLAZED with TF482 & TF483 MULLIONS with AWNING/ FIXED over FIXED/ FIXED
TEST SAMPLE SIZE	2.7m (H) x 2.46m (W)
SERVICEABILITY LOAD	+/- 3 kPa
ULTIMATE LOAD	+/- 4.16 kPa
WATER PENETRATION	706 Pa
AIR INFILTRATION @ 75Pa	+ 0.38L/s/ms² - 0.46L/s/ms²



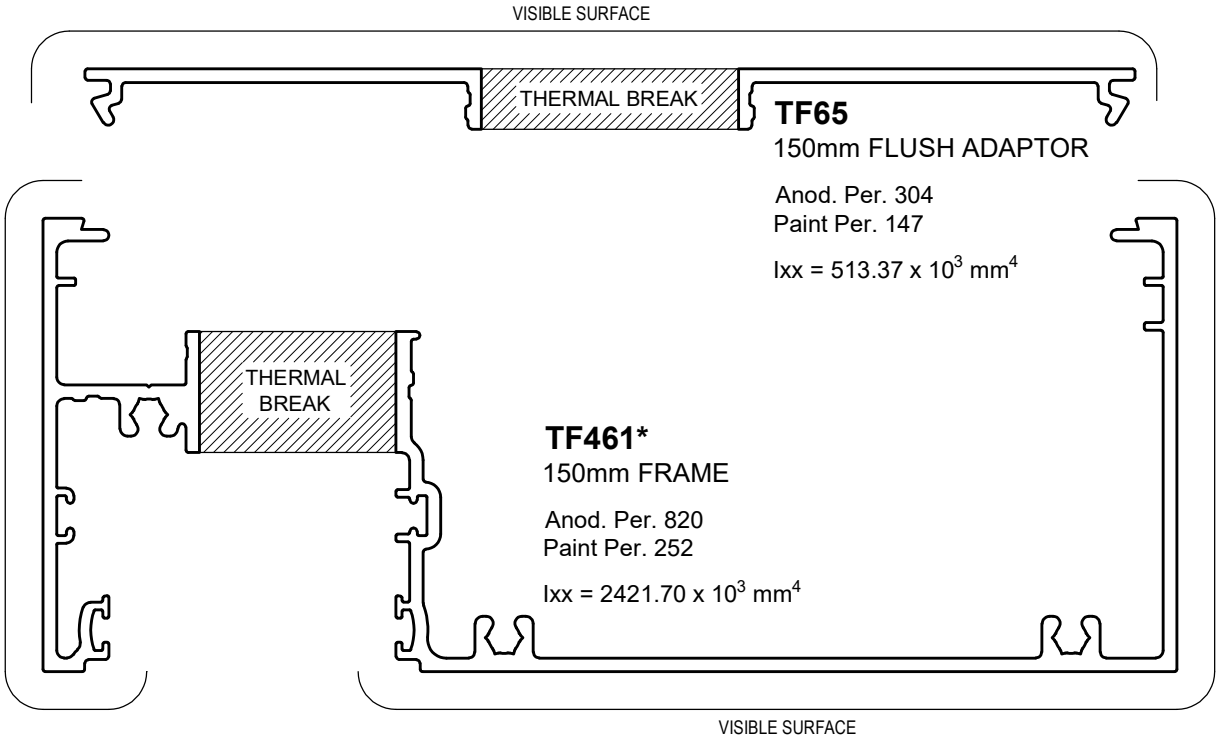
DISCLAIMER:
Please note that the test results shown above reflect specific configurations of a system and are representative only. If a specific high wind load or a different configuration (i.e. changes to frames, transoms, mullions) is required on a project please discuss with Alspec prior to commencement.

4. Test Summary

Acoustic - AS/NZS ISO 717.1

TEST REPORT	PRODUCT DESCRIPTION	SIZE	GLASS	Rw
TL581-12-1	THERMAFRAME 150mm FG FIXED/ FIXED	2.1m (H) x 1.8m (W)	10.38/12/6.38mm	39 (-1, -4)

AUSTRALIAN PATENT No. 2013904581
* DENOTES REGISTERED DESIGN



TF65
150mm FLUSH ADAPTOR

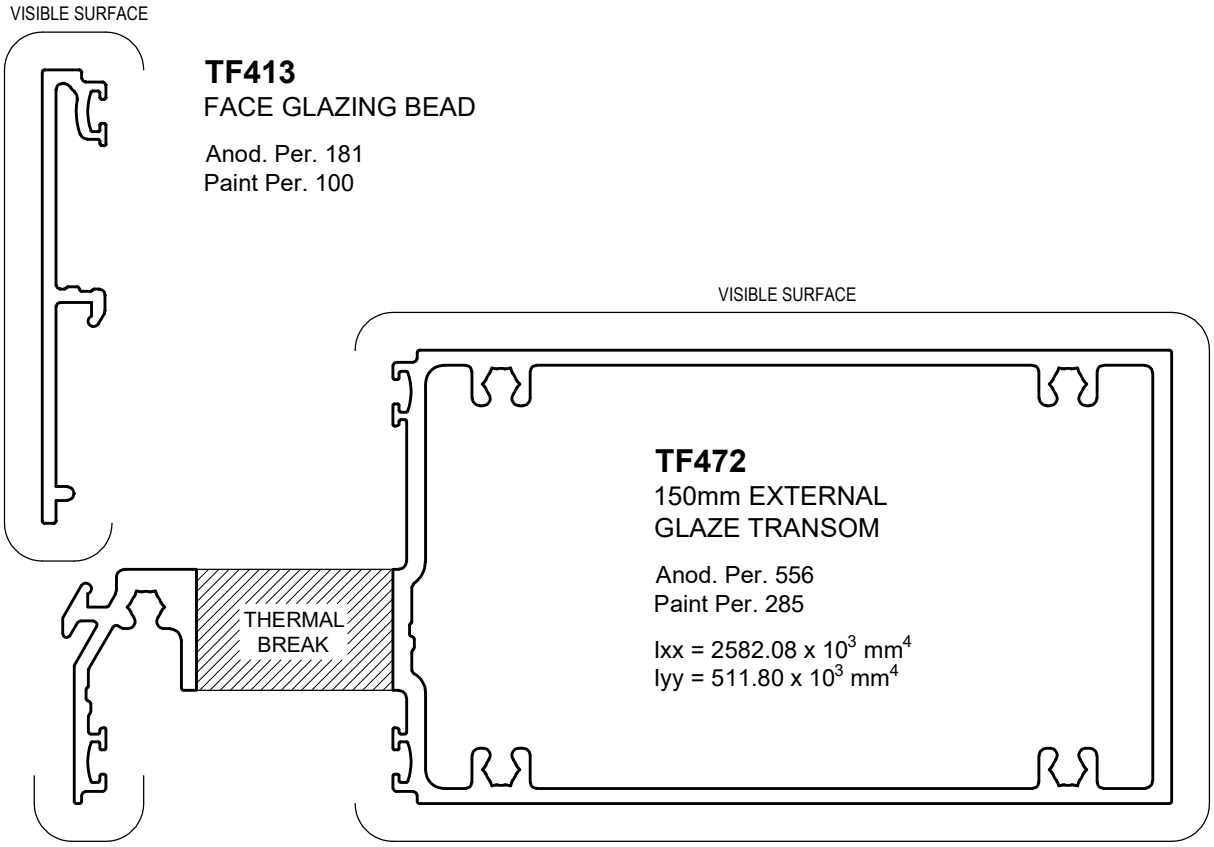
Anod. Per. 304
Paint Per. 147

Ixx = 513.37 x 10^3 mm^4

TF461*
150mm FRAME

Anod. Per. 820
Paint Per. 252

Ixx = 2421.70 x 10^3 mm^4



TF413
FACE GLAZING BEAD

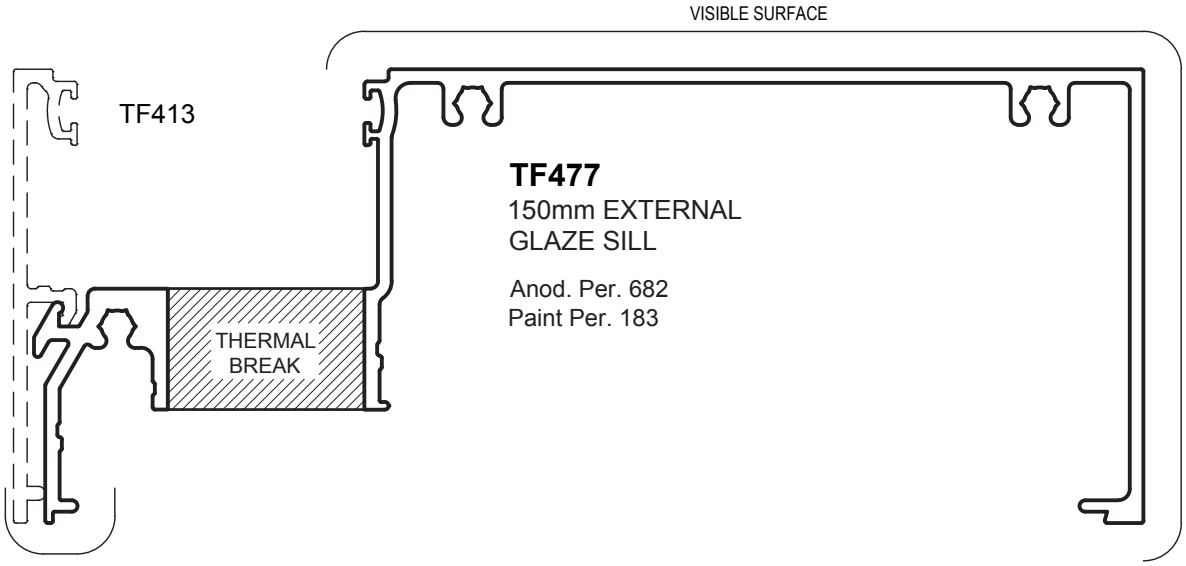
Anod. Per. 181
Paint Per. 100

TF472
150mm EXTERNAL
GLAZE TRANSOM

Anod. Per. 556
Paint Per. 285

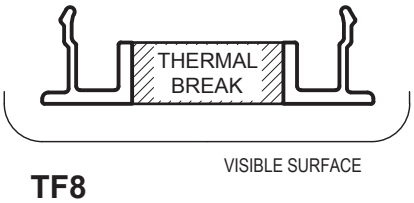
Ixx = 2582.08 x 10^3 mm^4
Iyy = 511.80 x 10^3 mm^4

5. Extrusions



TF477
150mm EXTERNAL GLAZE SILL

Anod. Per. 682
Paint Per. 183

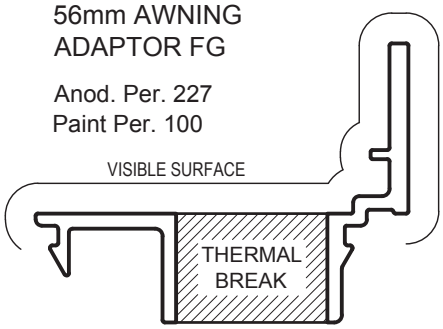


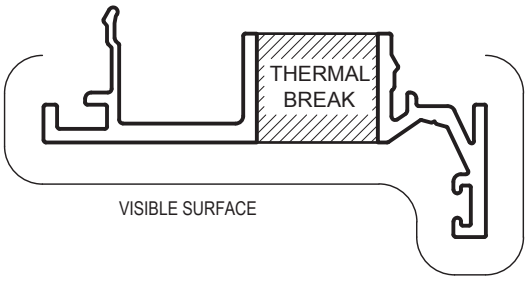
TF8
FLUSH POCKET INFILL

Anod. Per. 156
Paint Per. 100

TF421
56mm AWNING ADAPTOR FG

Anod. Per. 227
Paint Per. 100

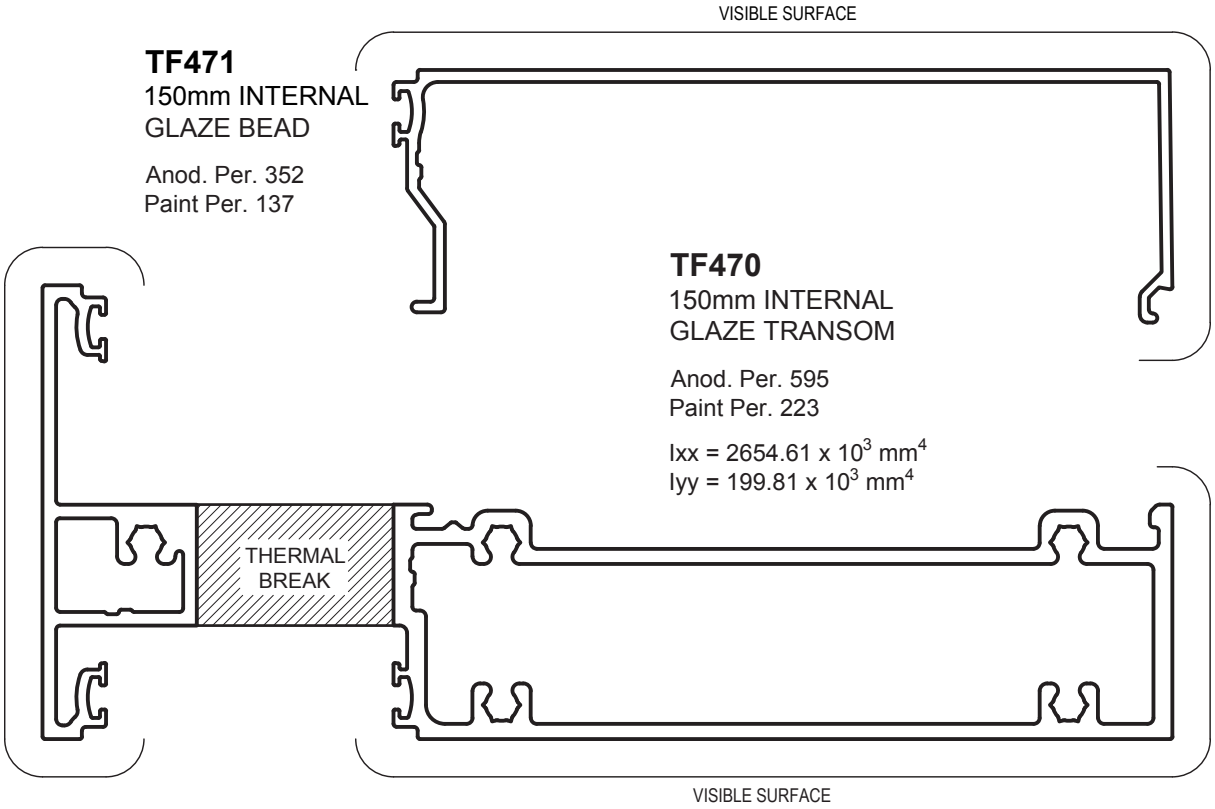


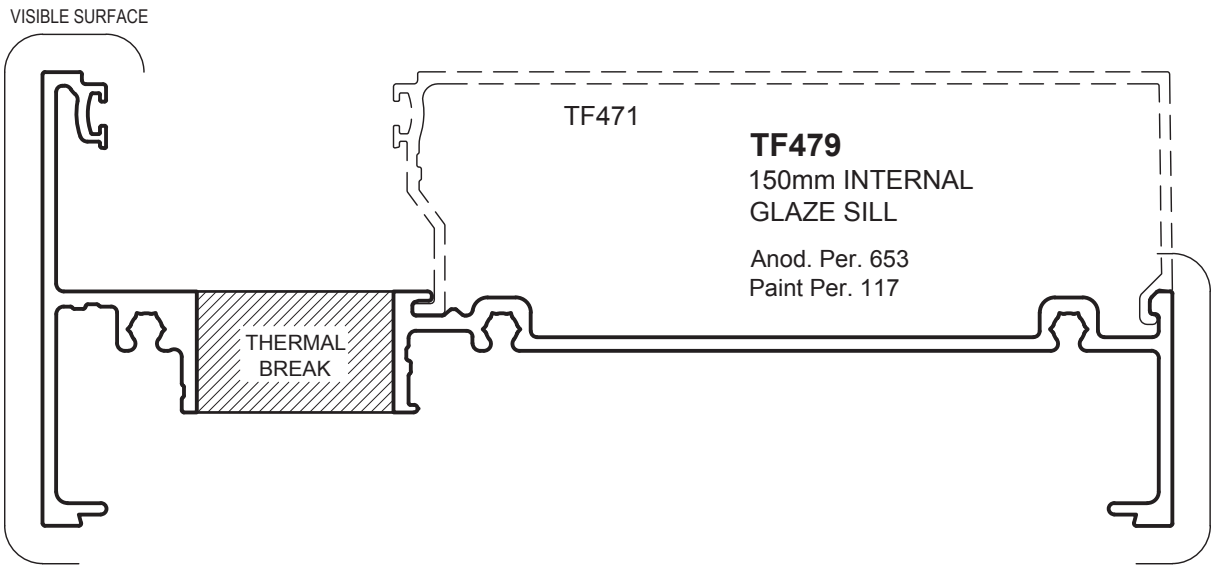


TF407
50mm DOOR STOP

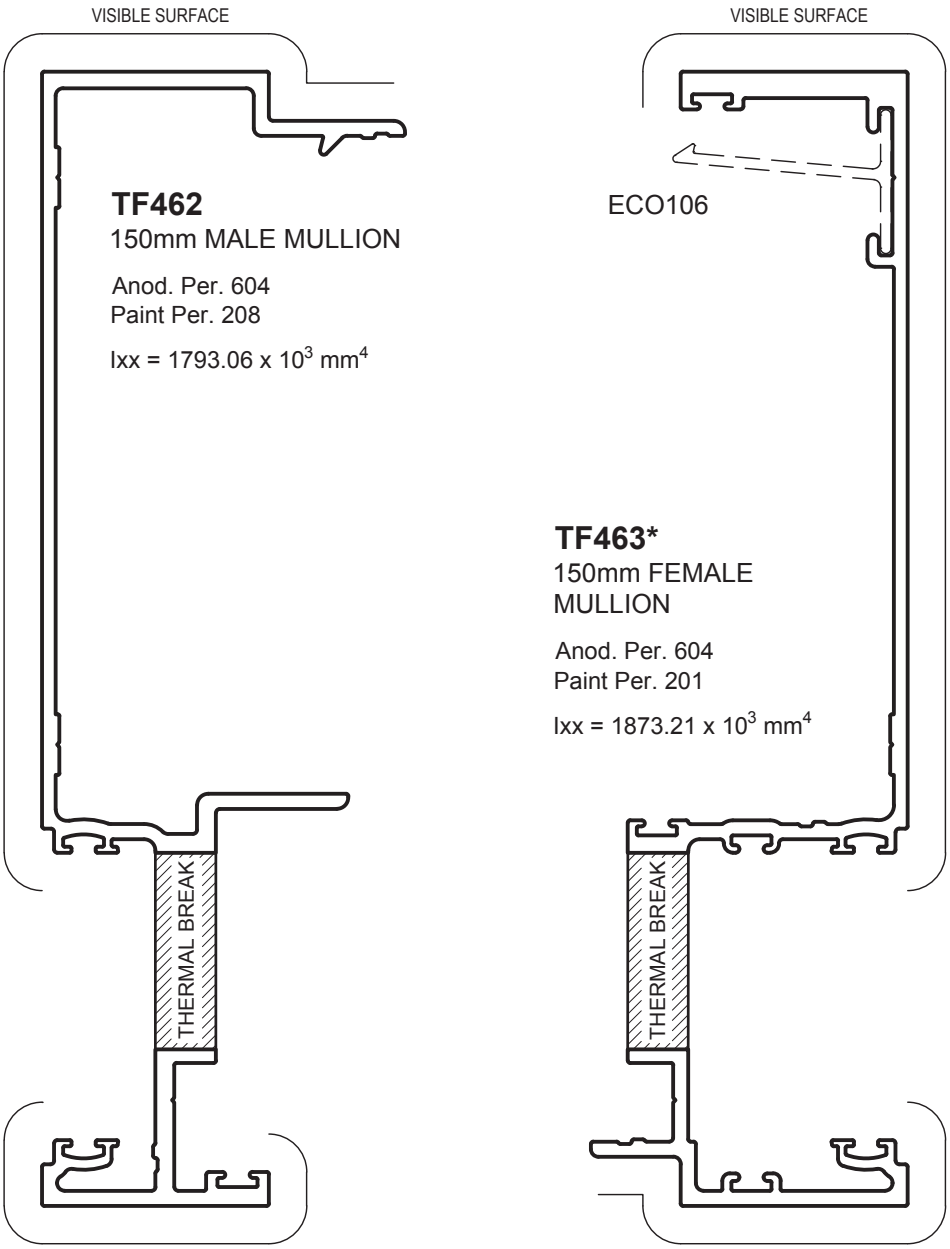
Anod. Per. 286
Paint Per. 123

5. Extrusions





AUSTRALIAN PATENT No. 2013904581
* DENOTES REGISTERED DESIGN



TF462
150mm MALE MULLION

Anod. Per. 604
Paint Per. 208

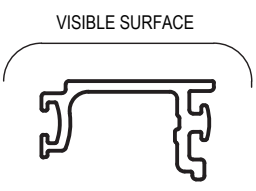
Ixx = 1793.06 x 10^3 mm^4

ECO106

TF463*
150mm FEMALE MULLION

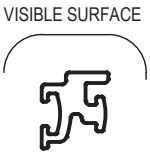
Anod. Per. 604
Paint Per. 201

Ixx = 1873.21 x 10^3 mm^4



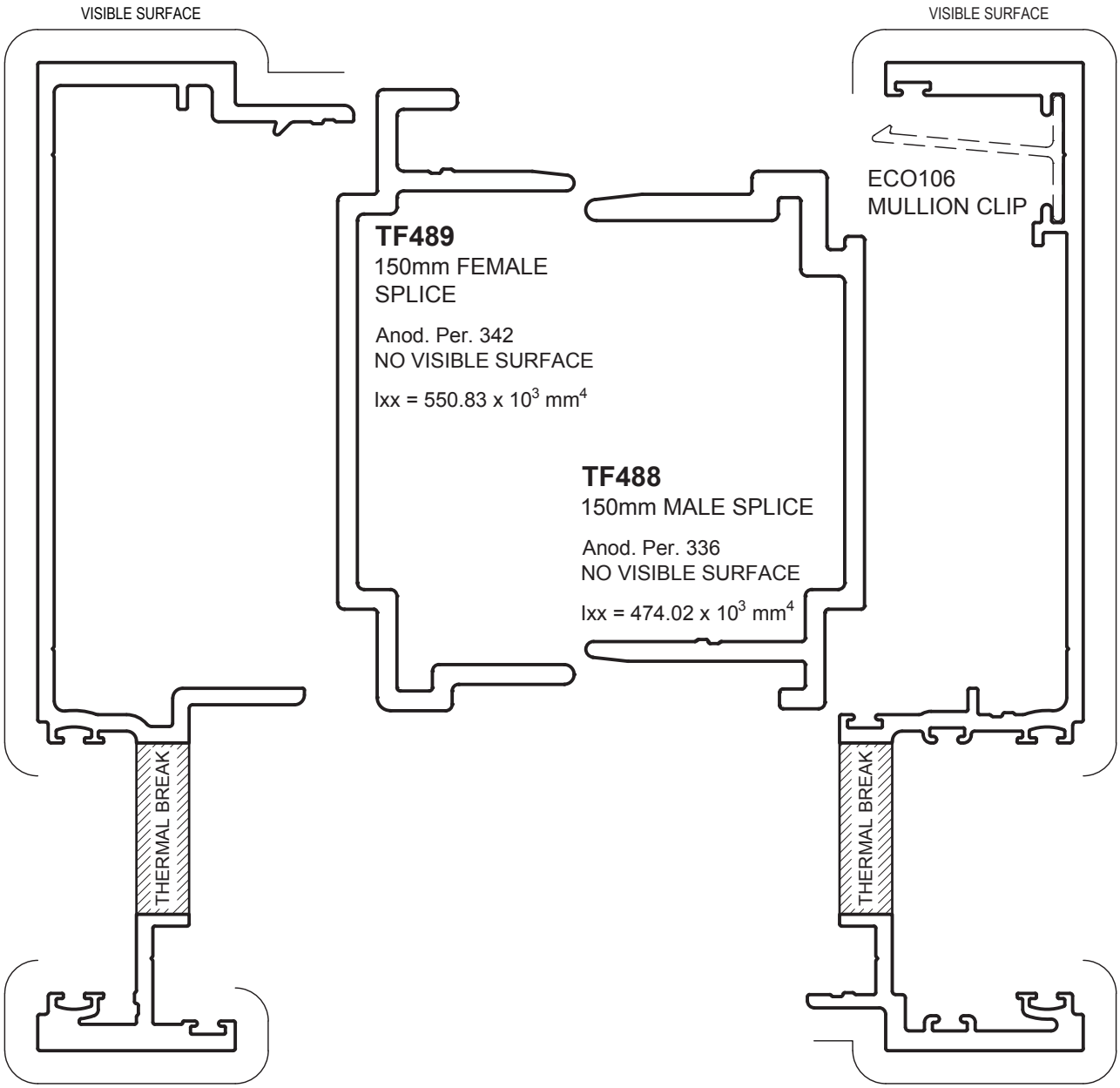
HE431
SINGLE GLAZE ADAPTOR

Anod. Per. 105
Paint Per. 100



ECO123
GLAZING ADAPTOR

Anod. Per. 100
Paint Per. 100



TF489
150mm FEMALE
SPLICE

Anod. Per. 342
NO VISIBLE SURFACE

Ixx = 550.83 x 10^3 mm^4

TF488
150mm MALE SPLICE

Anod. Per. 336
NO VISIBLE SURFACE

Ixx = 474.02 x 10^3 mm^4

TF482
150mm H.D.
MALE MULLION

Anod. Per. 590
Paint Per. 208

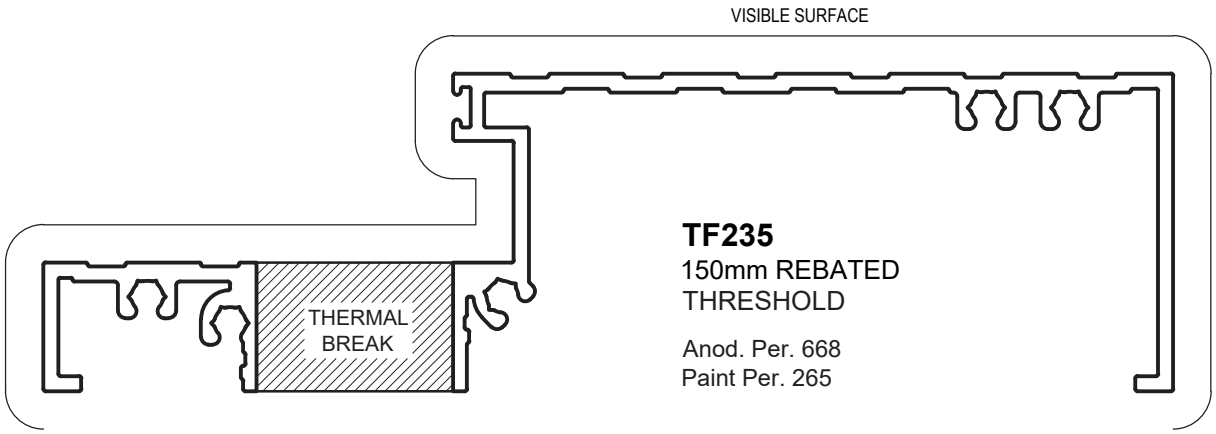
Ixx = 2364.98 x 10^3 mm^4

TF483*
150mm H.D.
FEMALE MULLION

Anod. Per. 605
Paint Per. 201

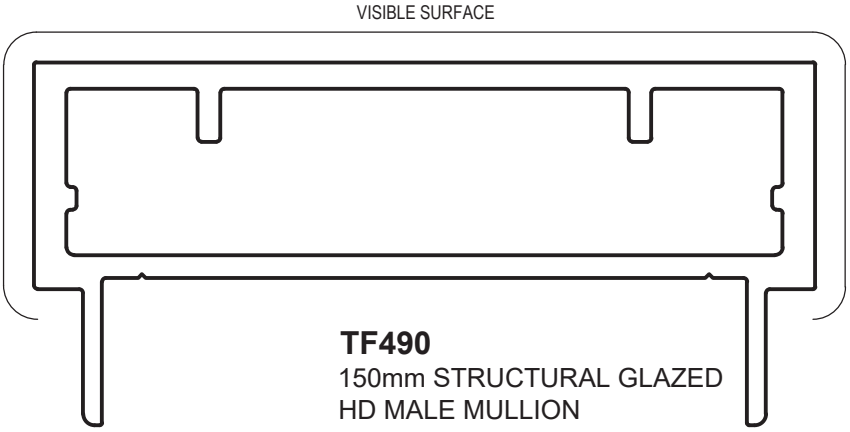
Ixx = 2331.15 x 10^3 mm^4

5. Extrusions



TF235
150mm REBATED
THRESHOLD

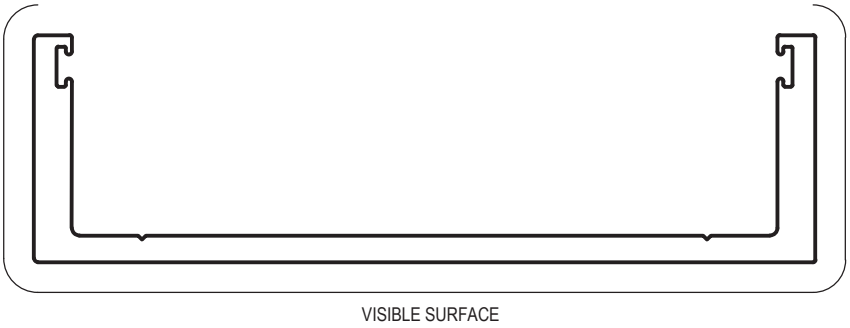
Anod. Per. 668
Paint Per. 265



TF490
150mm STRUCTURAL GLAZED
HD MALE MULLION

Anod. Per. 339
Paint Per. 164

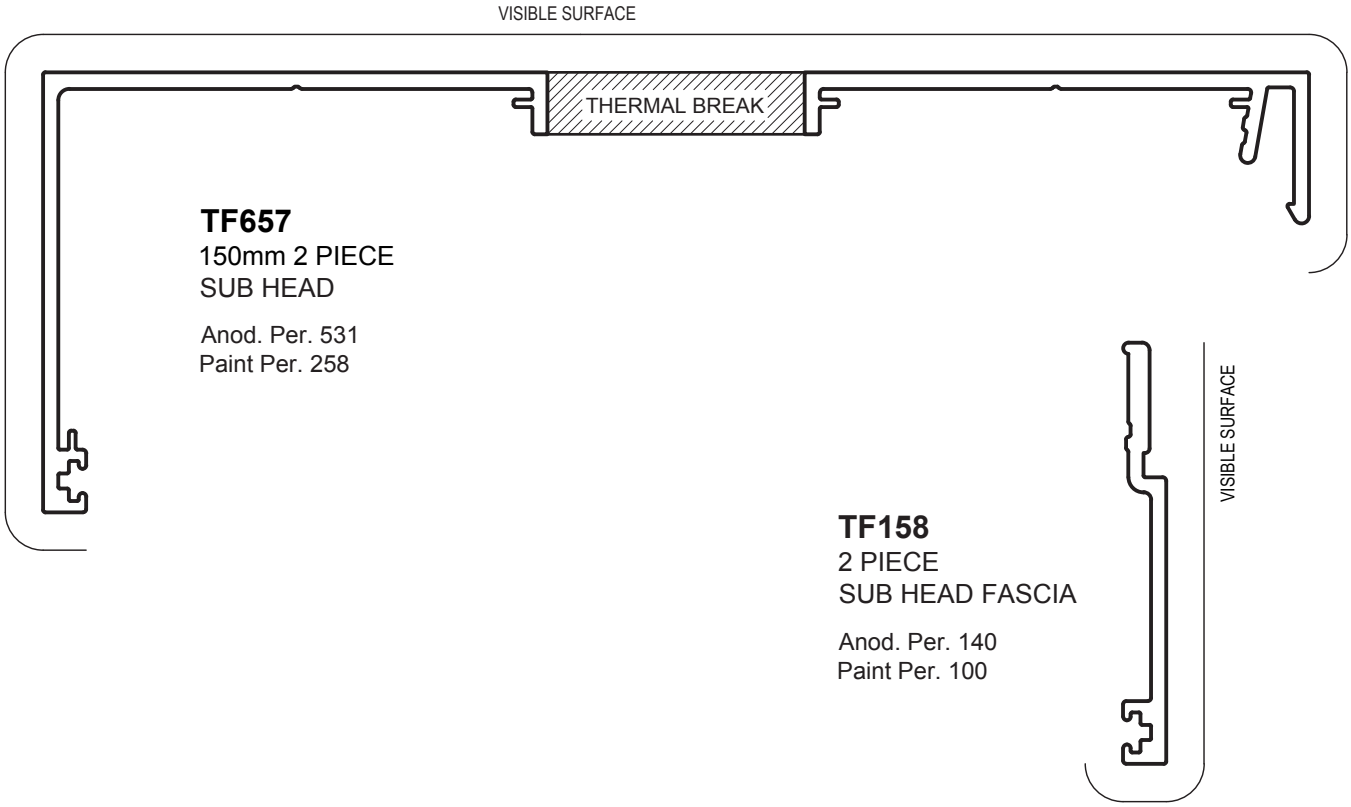
Ixx = 176.98 x 10^3 mm^4



TF491
150mm STRUCTURAL GLAZED
HD FEMALE MULLION

Anod. Per. 333
Paint Per. 163

Ixx = 44.33 x 10^3 mm^4

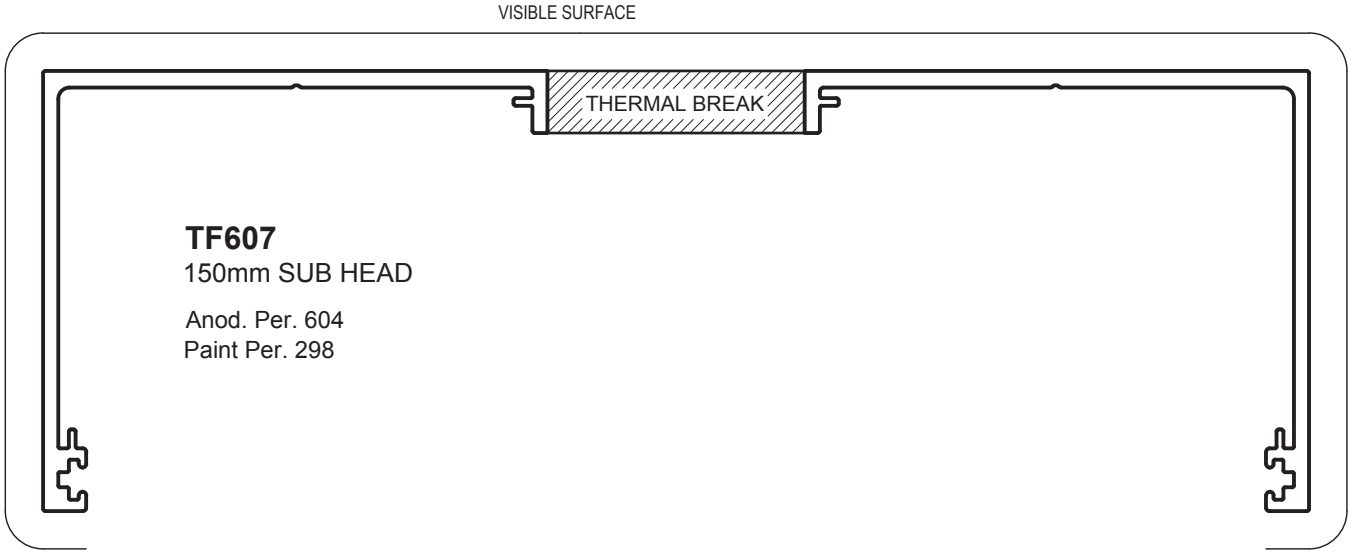


TF657
150mm 2 PIECE
SUB HEAD

Anod. Per. 531
Paint Per. 258

TF158
2 PIECE
SUB HEAD FASCIA

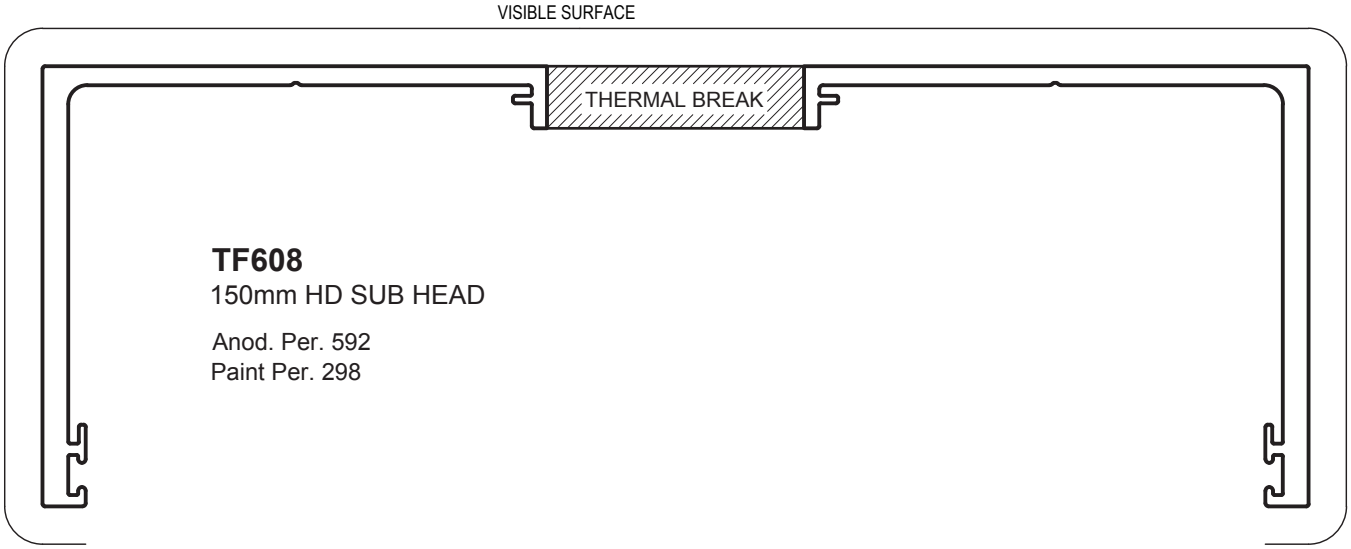
Anod. Per. 140
Paint Per. 100



TF607
150mm SUB HEAD

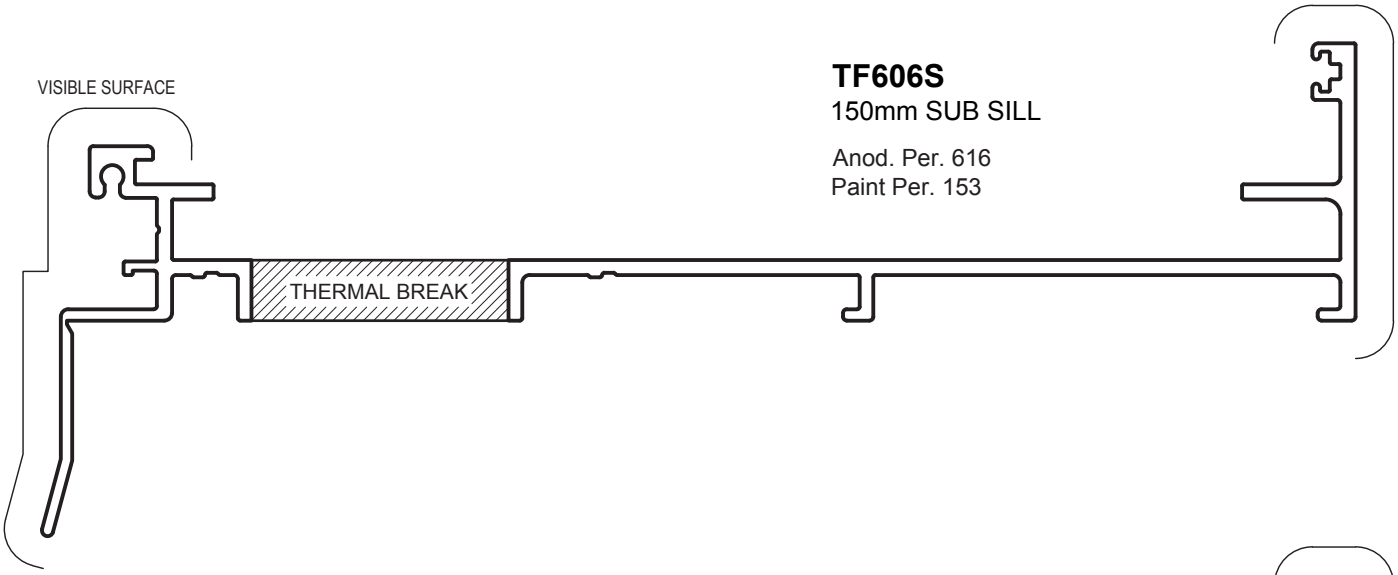
Anod. Per. 604
Paint Per. 298

5. Extrusions



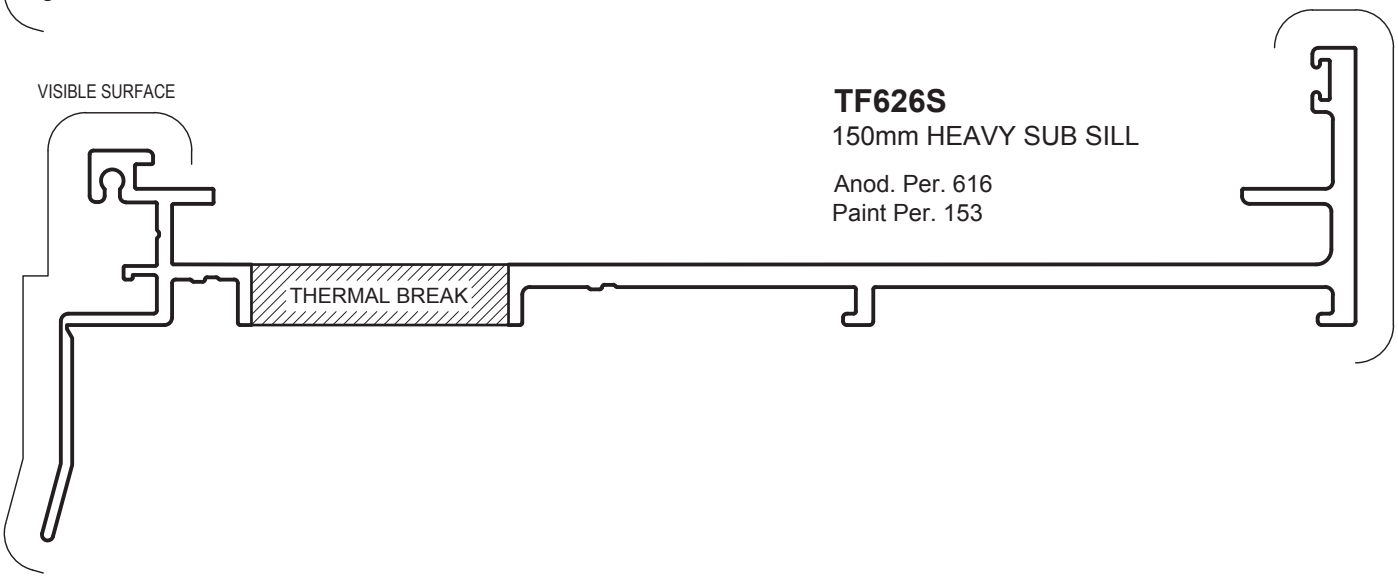
TF608
150mm HD SUB HEAD

Anod. Per. 592
Paint Per. 298



TF606S
150mm SUB SILL

Anod. Per. 616
Paint Per. 153

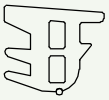


TF626S
150mm HEAVY SUB SILL

Anod. Per. 616
Paint Per. 153

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

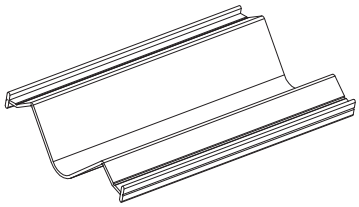
Fasteners

SCREWS			
PART #	HEAD	DESCRIPTION	LOCATION
1382021	PHILLIPS #2	10g x 2 (50mm) SS PHILLIPS CSK S/TAP x 200	MAIN FRAME
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

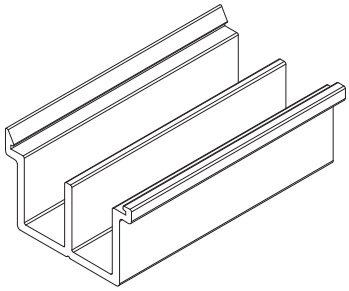
Frame Joint Gaskets

PART #	DESCRIPTION	FINISH
1385560	FJG008 60mm x 150mm 760PCS PER ROLL	BLACK (034)
		GREY (036)

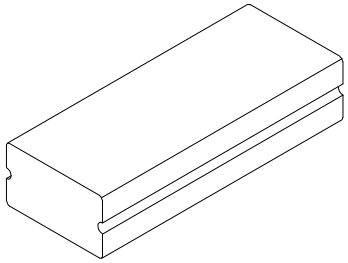
Accessories



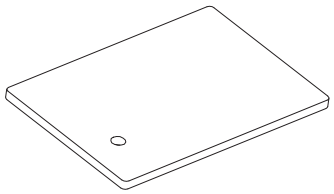
TA2 GLAZING POCKET BAFFLE x 100m ROLL	
PART	1316105
FINISH	BLACK (034)
QTY	EACH



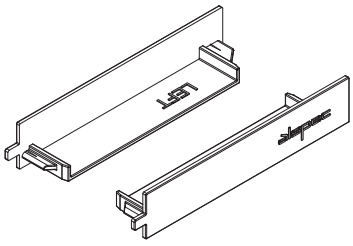
TA3 FLUSH GLAZED FRAME CAVITY BAFFLE x 3.6m	
PART	1316106
FINISH	GREY (036)
QTY	EACH



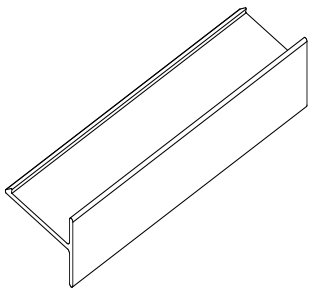
SETTING BLOCK 17 x 30 x 75mm BAG OF 50	
PART	1376734
FINISH	BLACK (034)
QTY	BAG



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



TA20 150mm ThermAFrame SUBSILL END CAP x PAIR	
PART	1345562
FINISH	BLACK (034)
QTY	PAIR



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

THERMAFRAME
THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

6. Hardware & Components

Silicone

100% NEUTRAL CURE SILICONE

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

100% MATTE NEUTRAL CURE SILIICONE

- 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

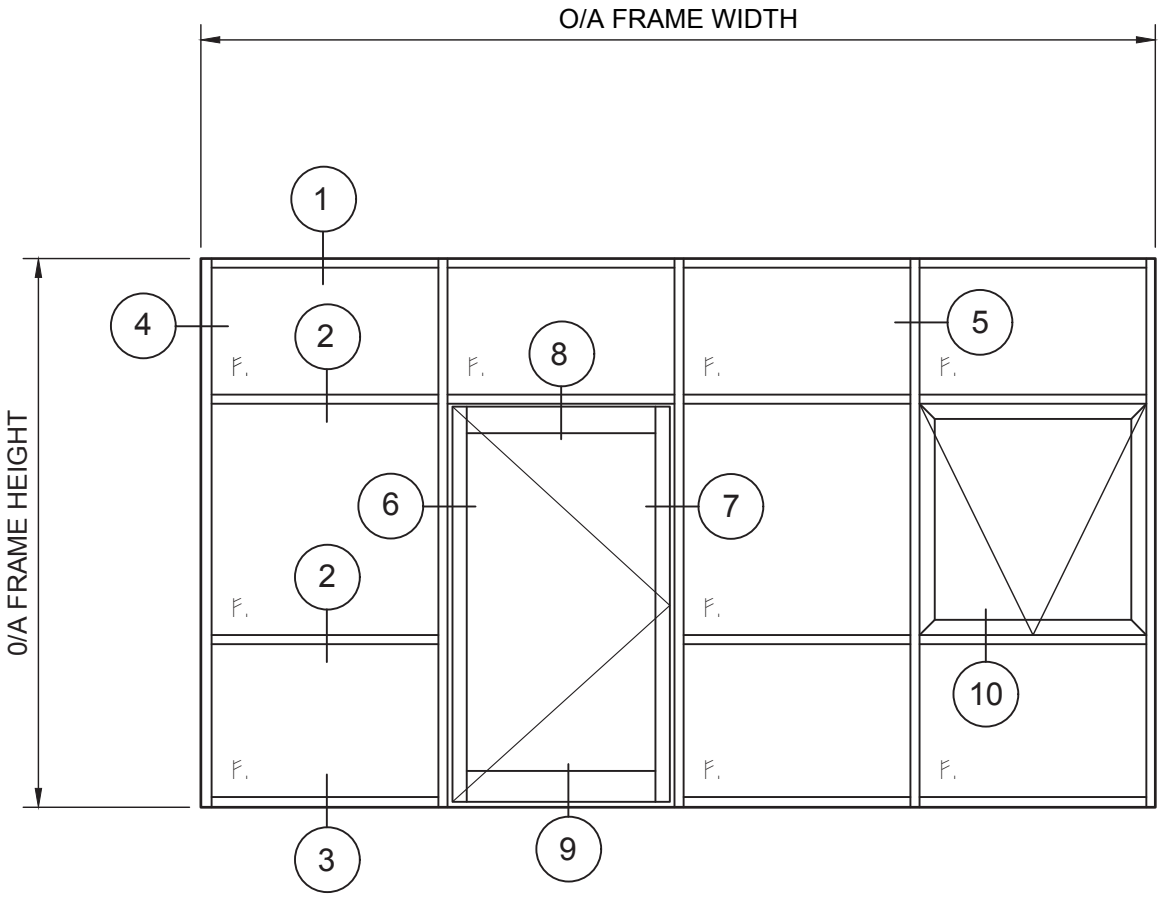
*For more information on silicones, please refer to Alspec Silicone Brochure.

6. Hardware & Components

Silicone Product Codes

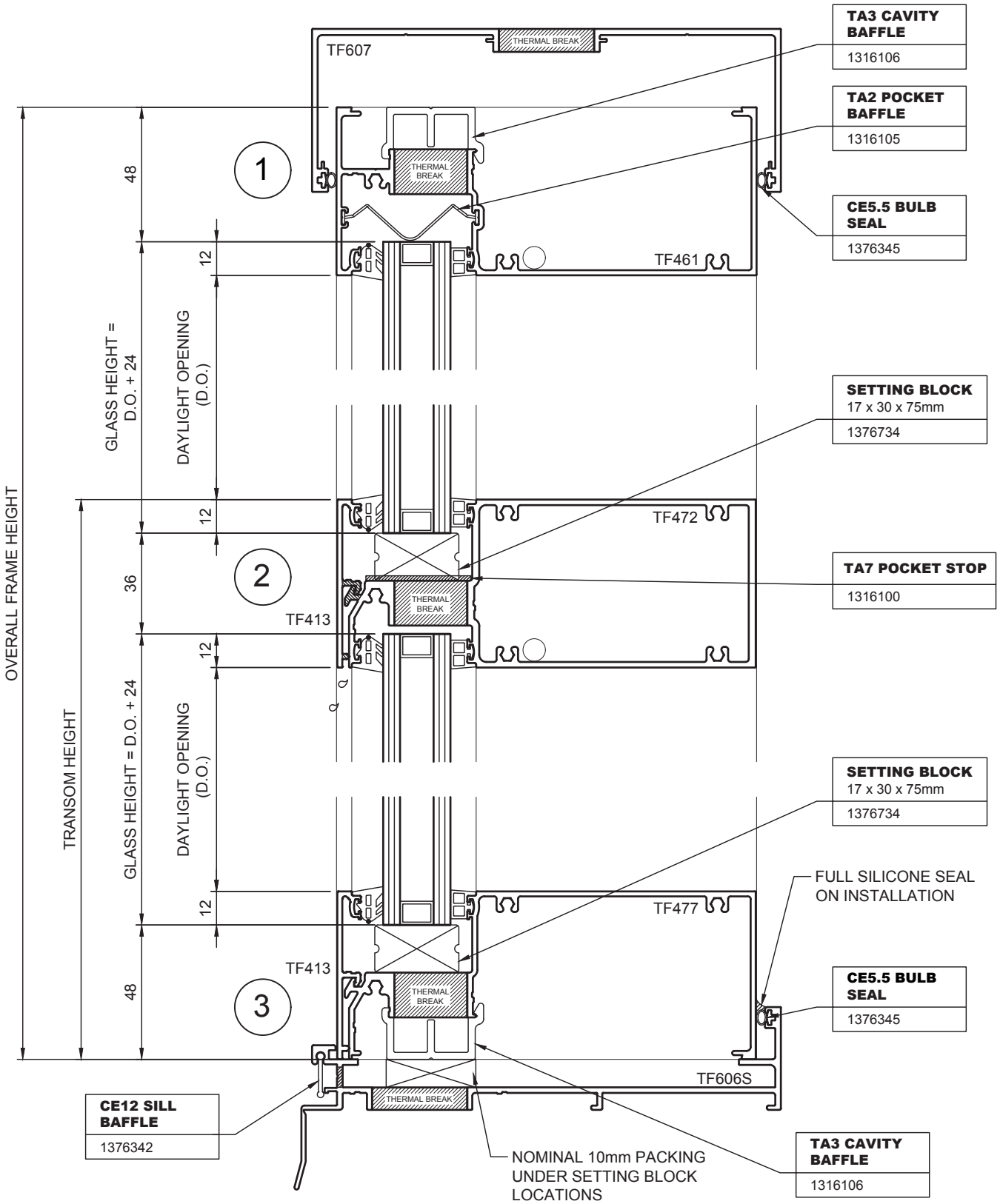
Product Category	Item No.	Alspec Part No. Code	Description	Finish	Pack
ALSPEC 100%	1	1386113	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	ALMOND IVORY	CARTRIDGE
	2	1386114	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	ALUMINIUM	CARTRIDGE
	3	1386105	ALSPEC 100% NEUTRAL CURE SILICONE x 310g CAT	BLACK	CARTRIDGE
	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



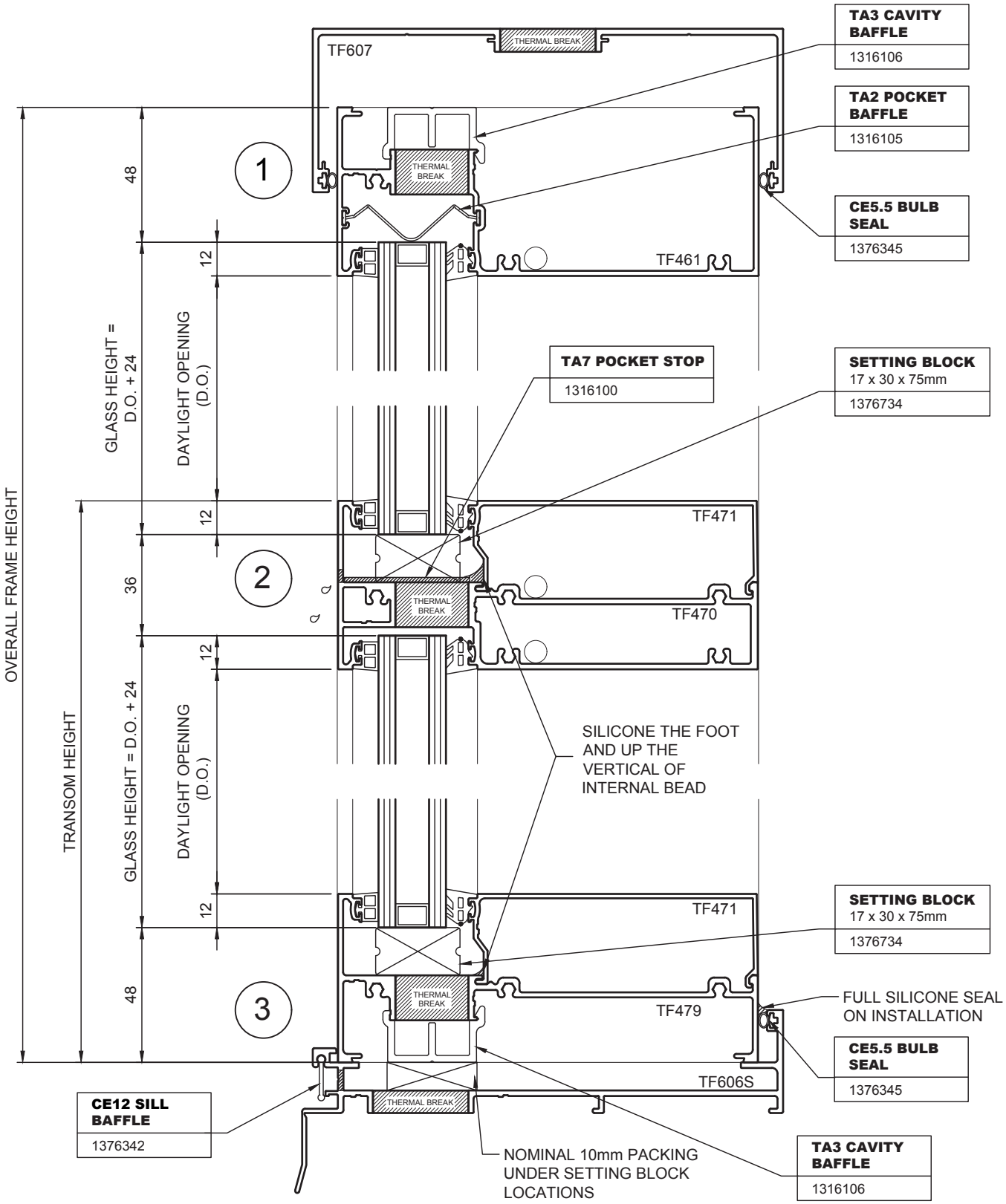
8. Typical Details

Typical Head, Transom and Sill Details - External Glaze



8. Typical Details

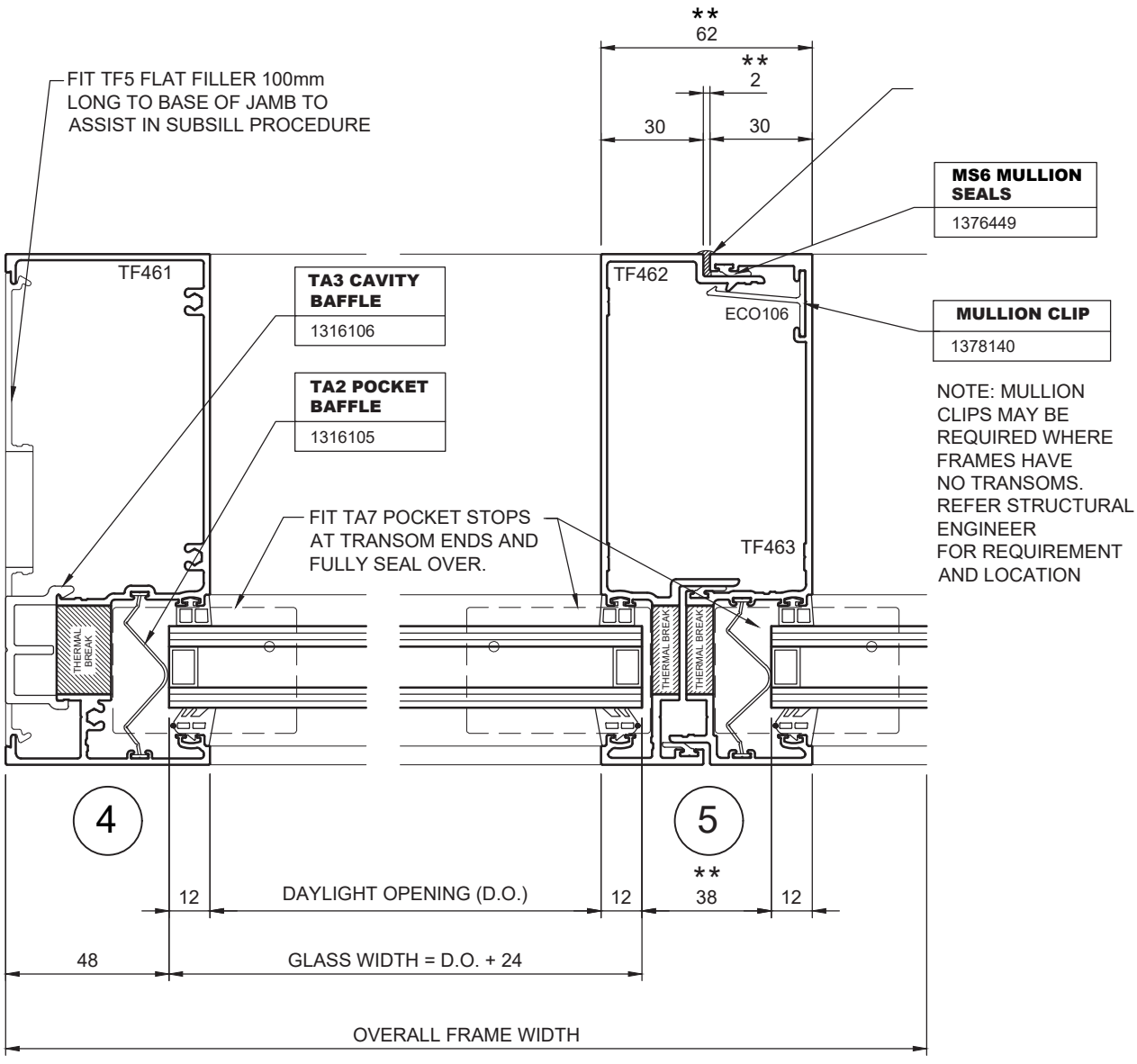
Typical Head, Transom and Sill Details - Internal Glaze



8. Typical Details

Typical Jamb and Mullion Details

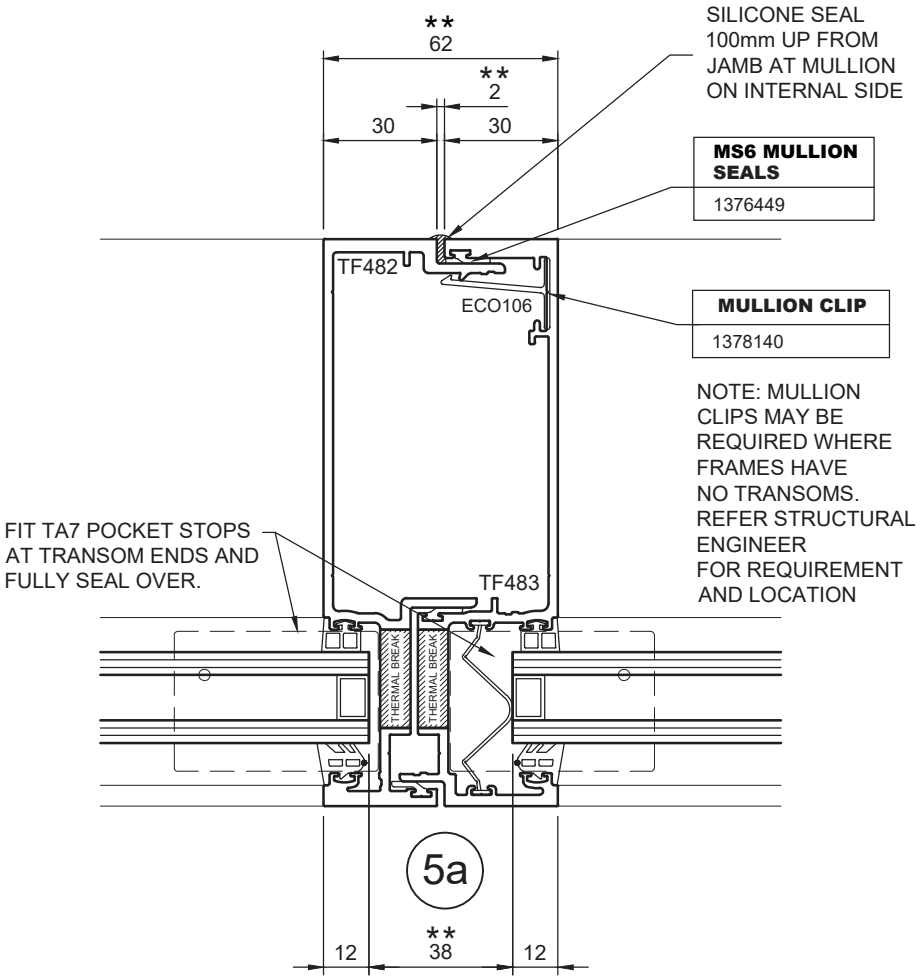
** NOMINAL DIMENSIONS ONLY. MAY VARY DUE TO PROJECT REQUIREMENTS



8. Typical Details

Alternative Mullion Details

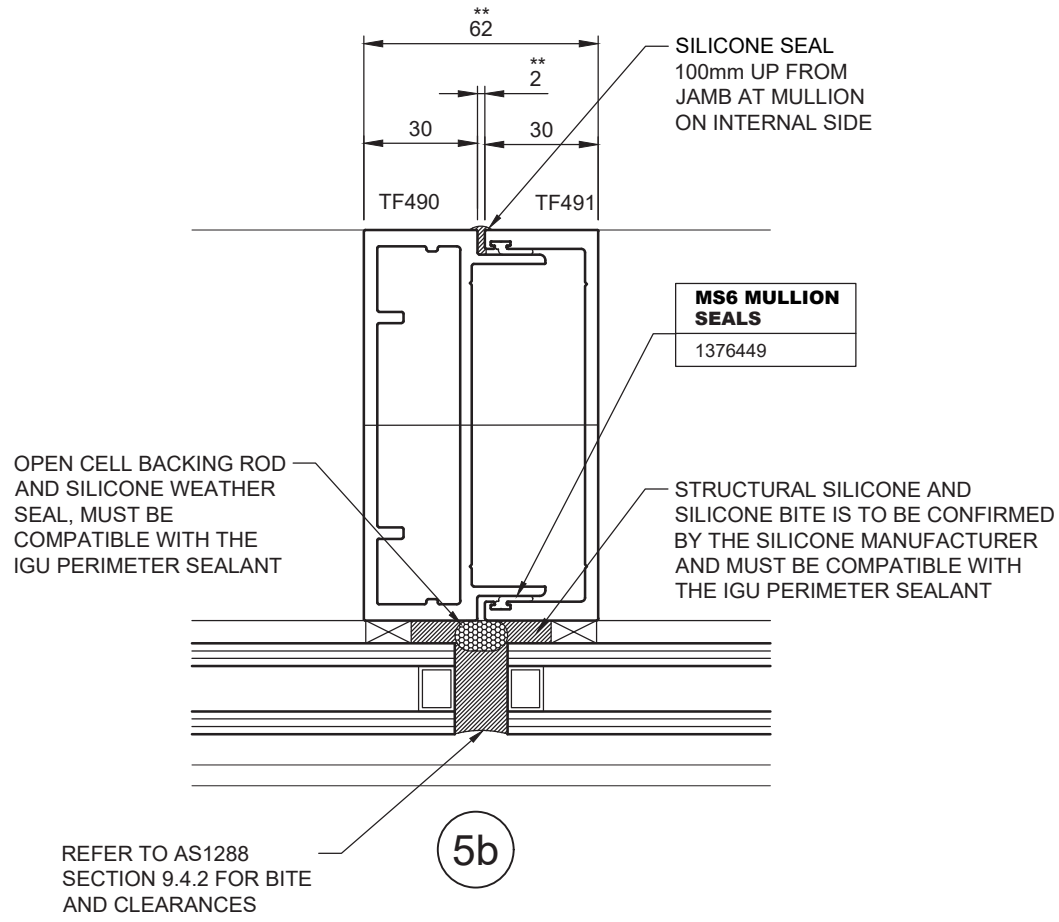
** NOMINAL DIMENSIONS ONLY. MAY VARY DUE TO PROJECT REQUIREMENTS



8. Typical Details

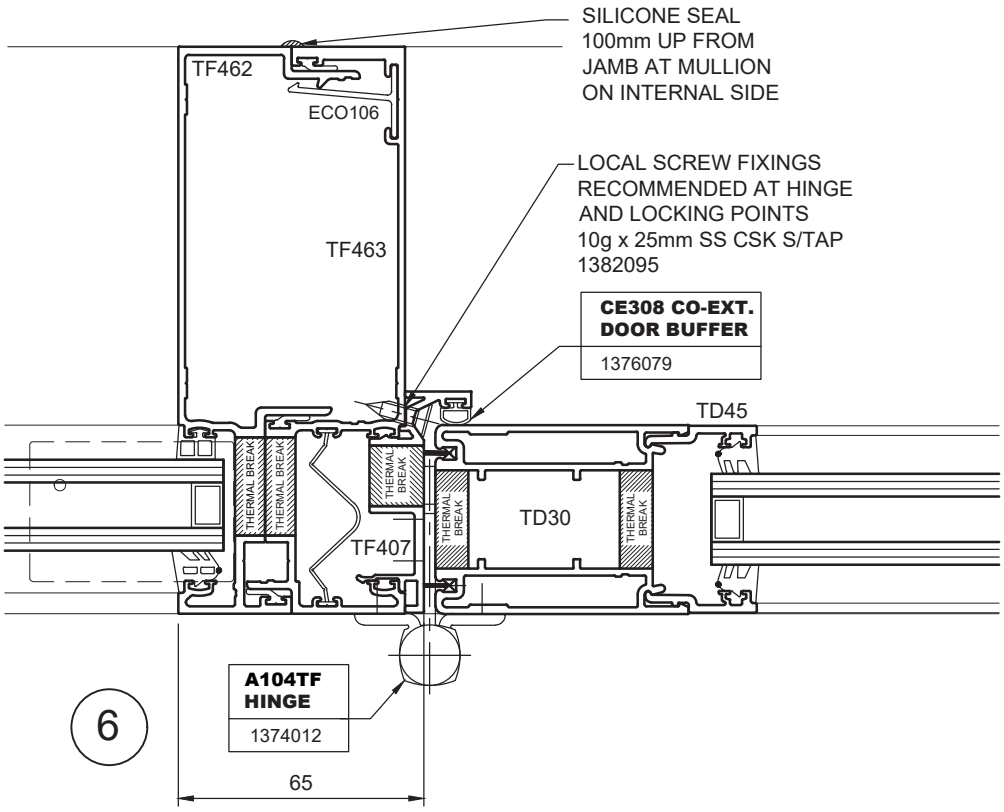
Structurally Glazed Mullion Details

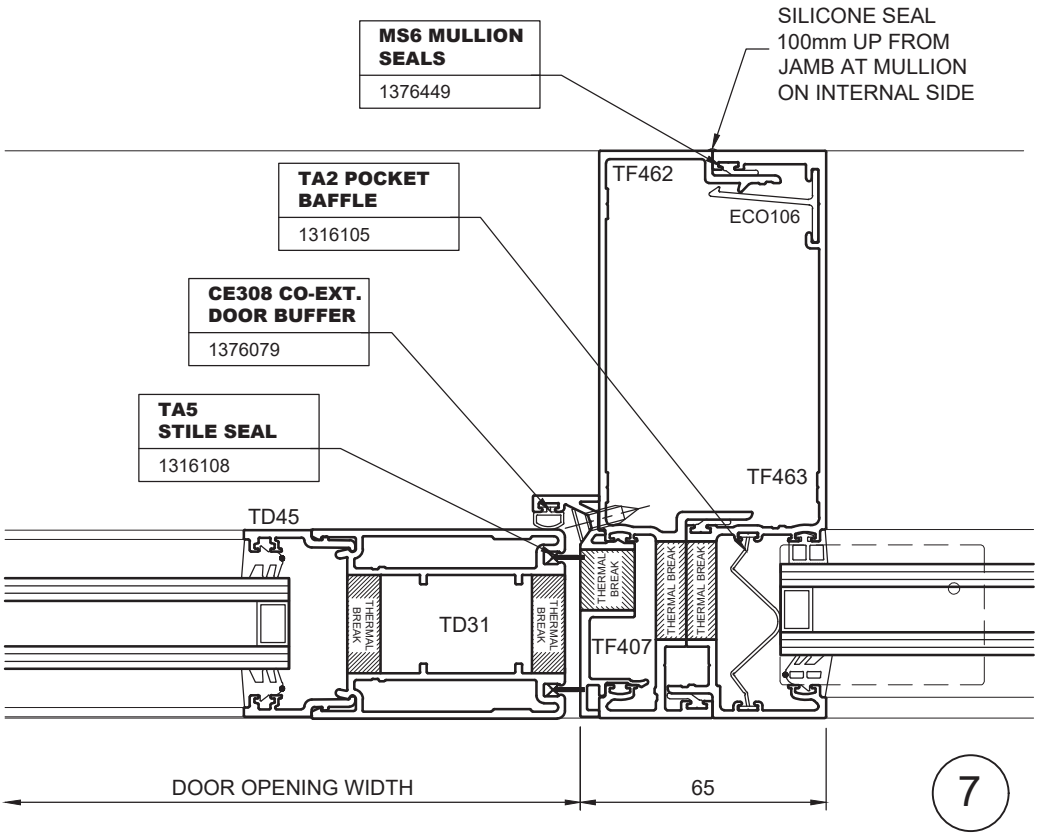
** NOMINAL DIMENSIONS ONLY. MAY VARY DUE TO PROJECT REQUIREMENTS



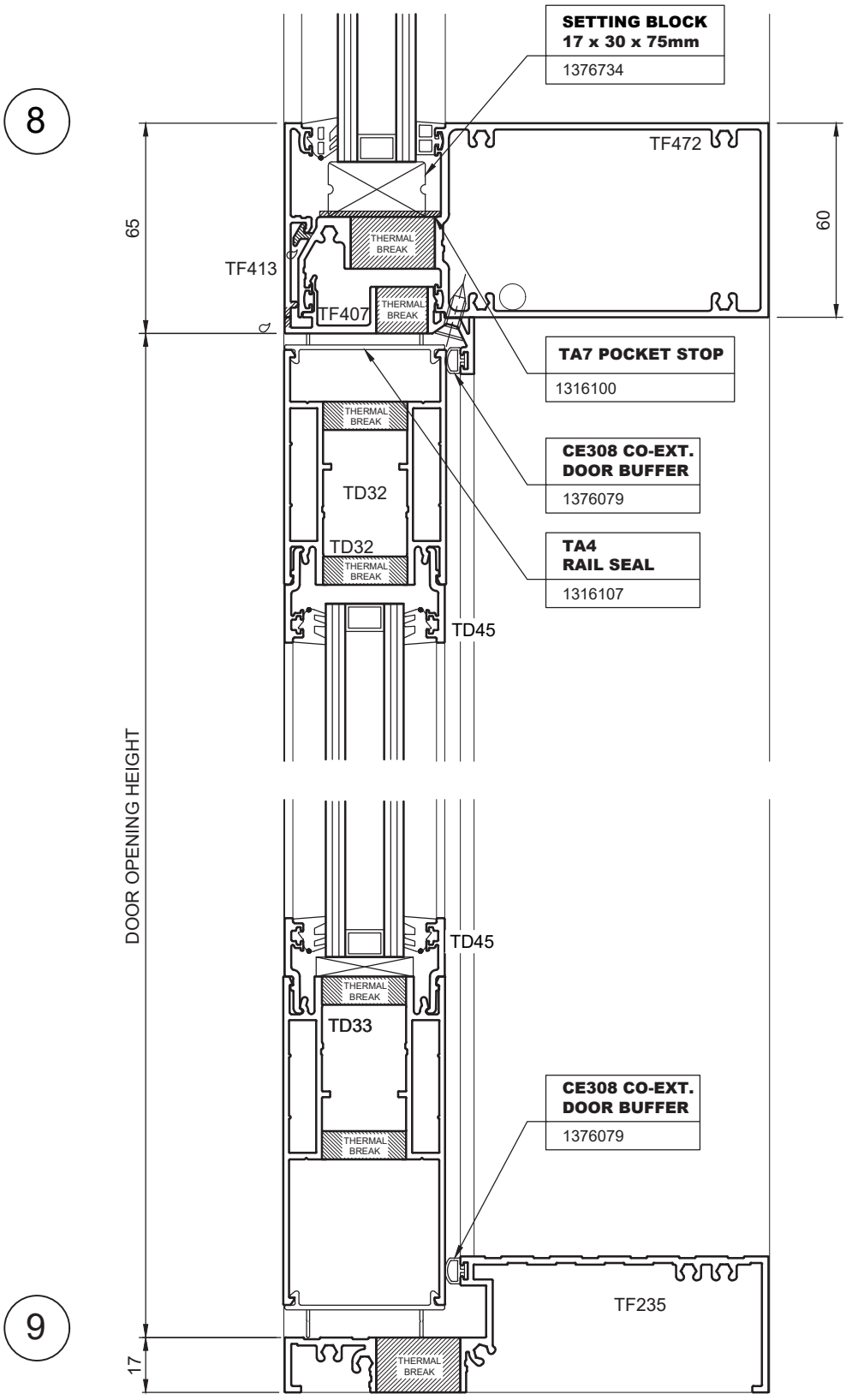
8. Typical Details

Typical Door Jamb Details



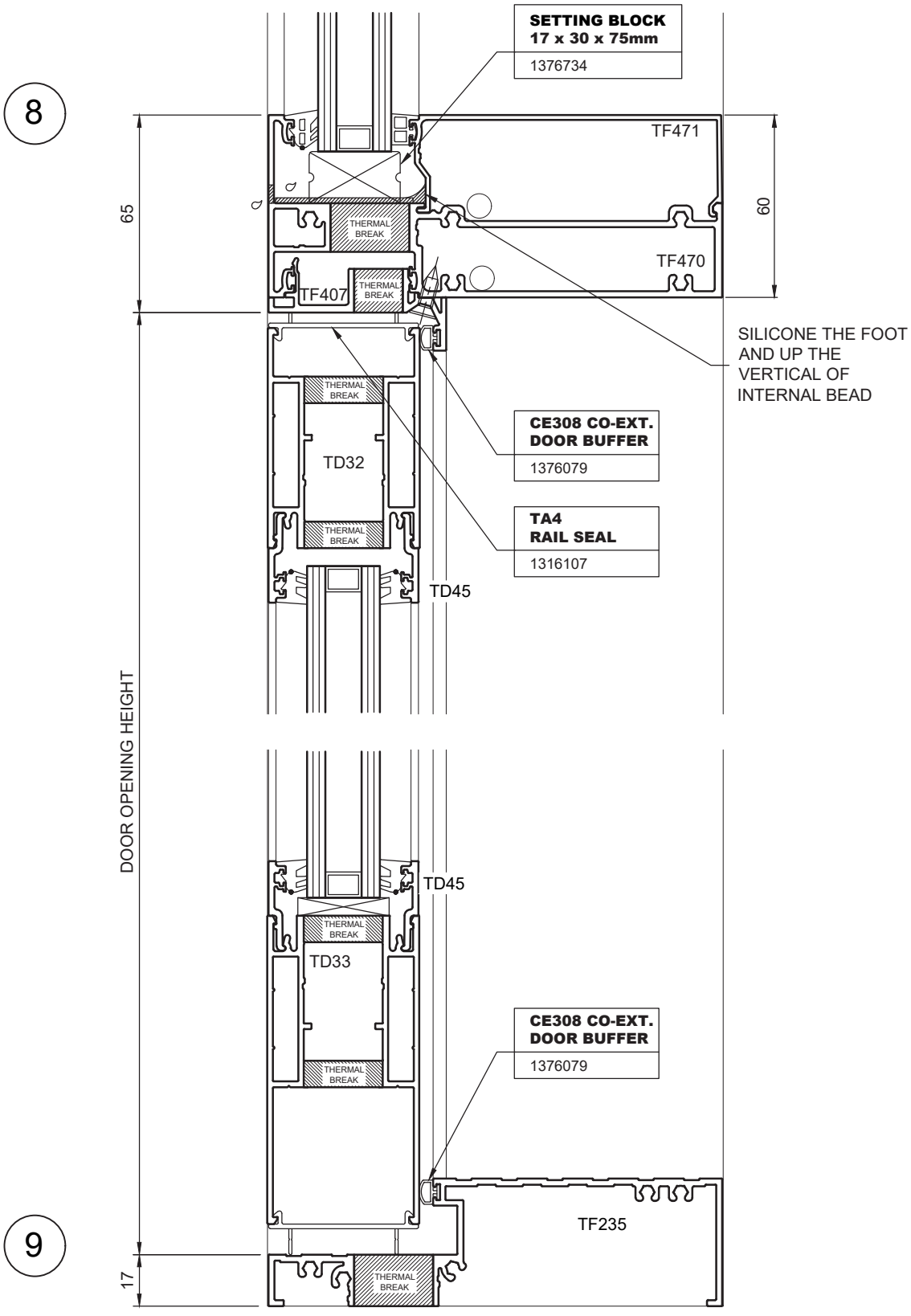


Typical Door Head & Threshold Details - External Glaze



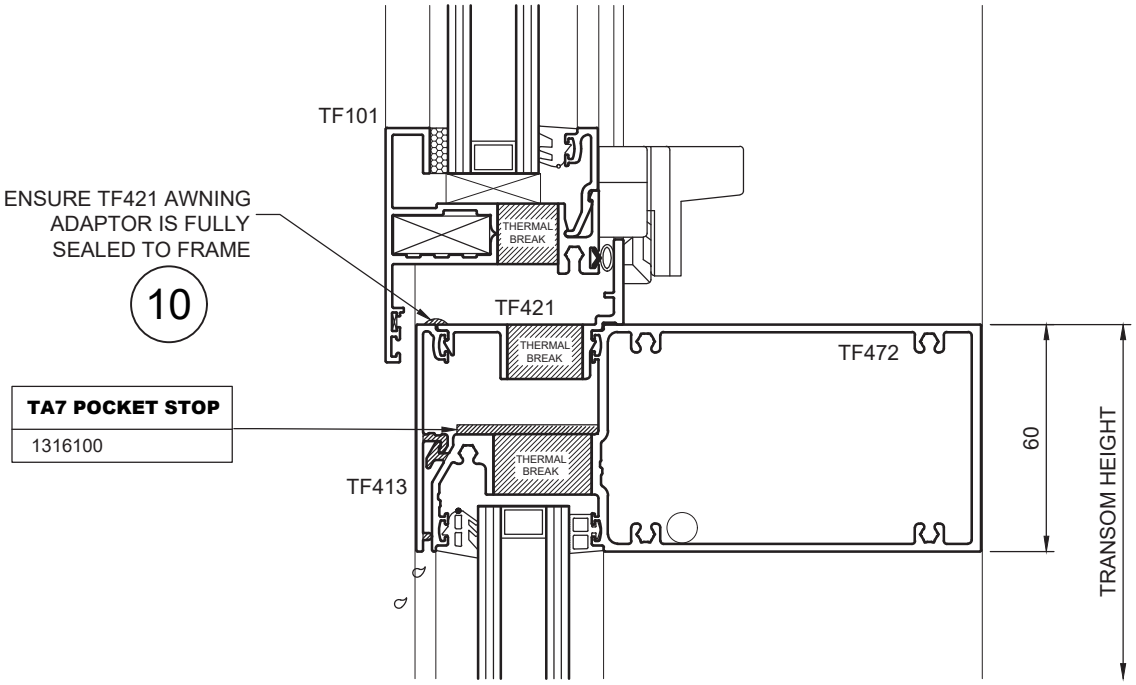
8. Typical Details

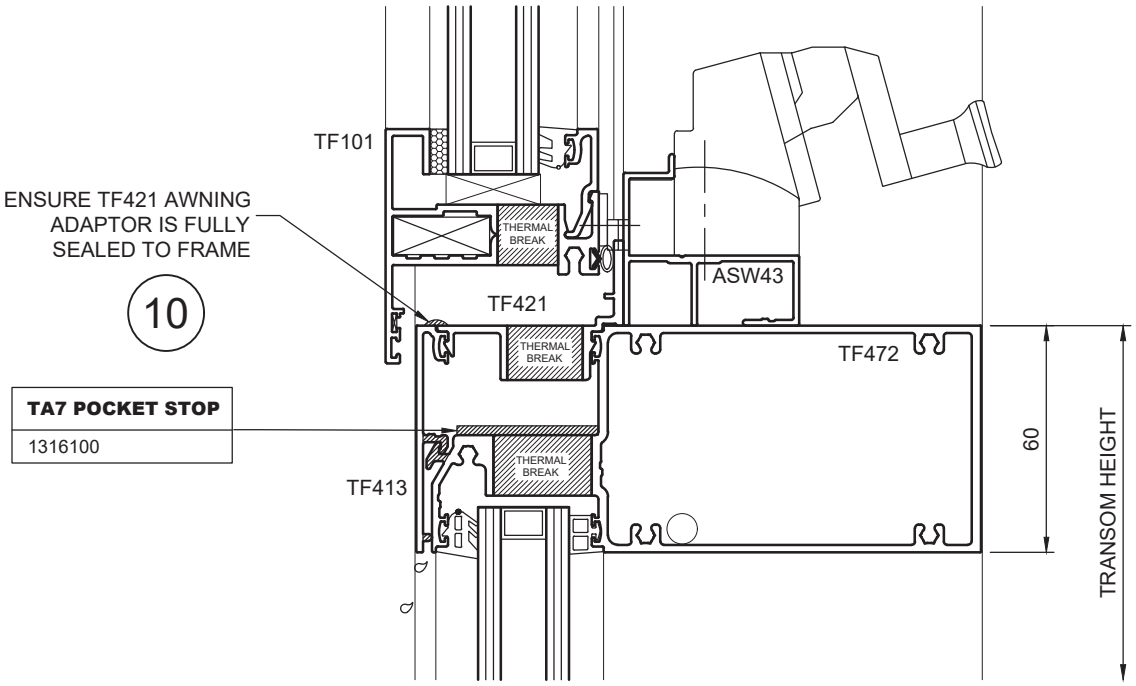
Typical Door Head & Threshold Details - Internal Glaze



8. Typical Details

Typical Transom Details - Awning

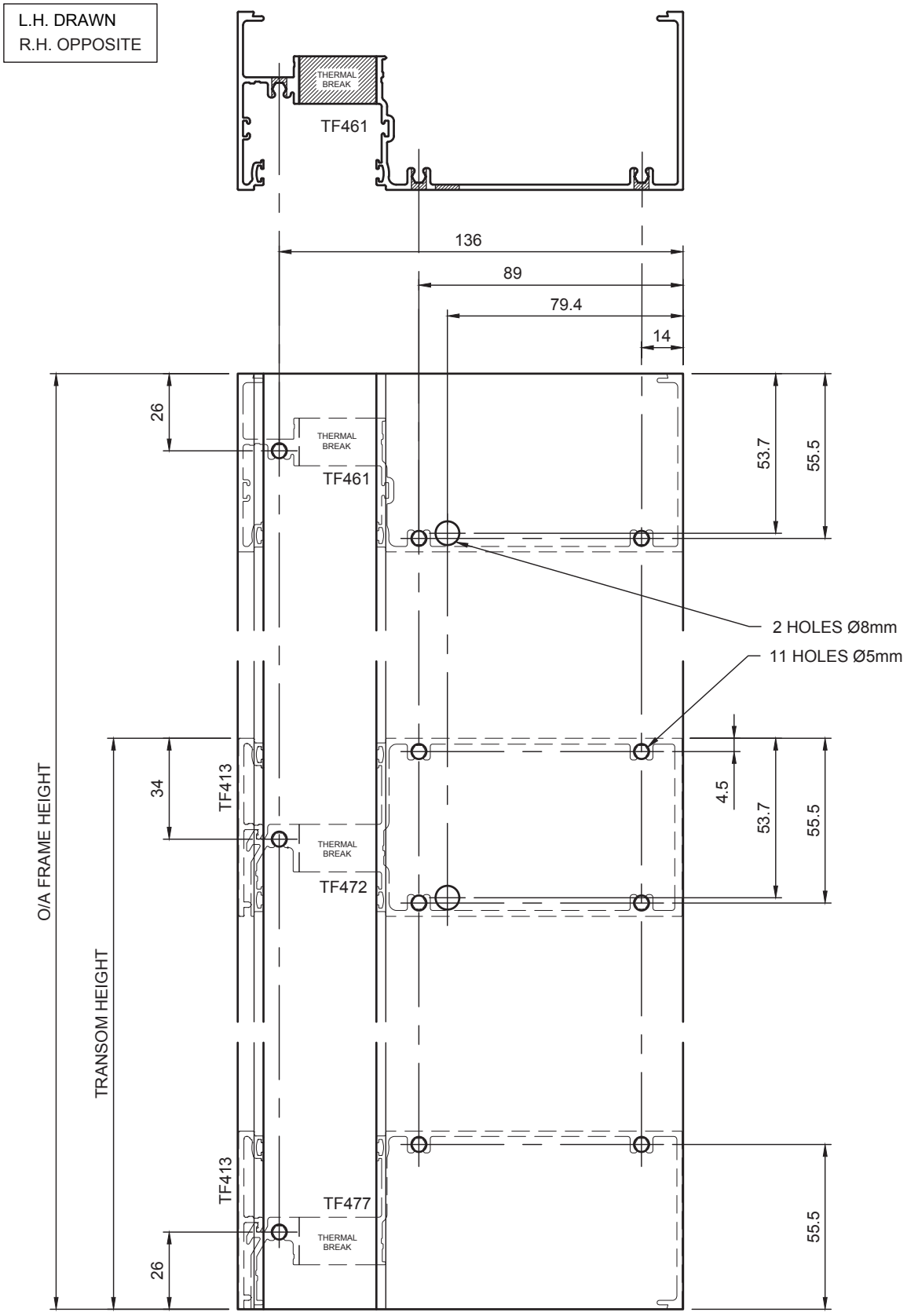




THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

10. Manufacturing Details

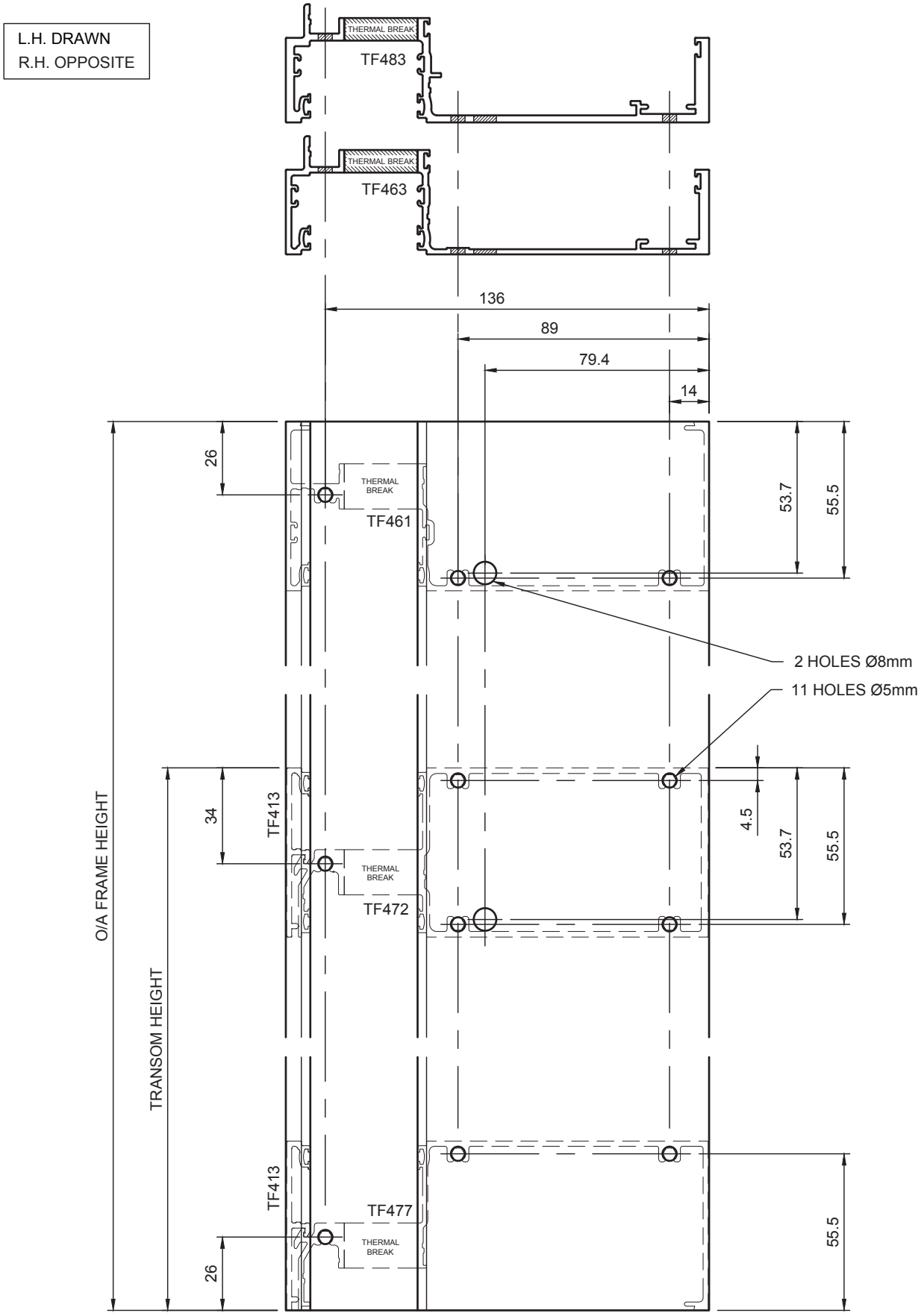
Frame Preparation - Frame/Jamb - External Glaze



THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

10. Manufacturing Details

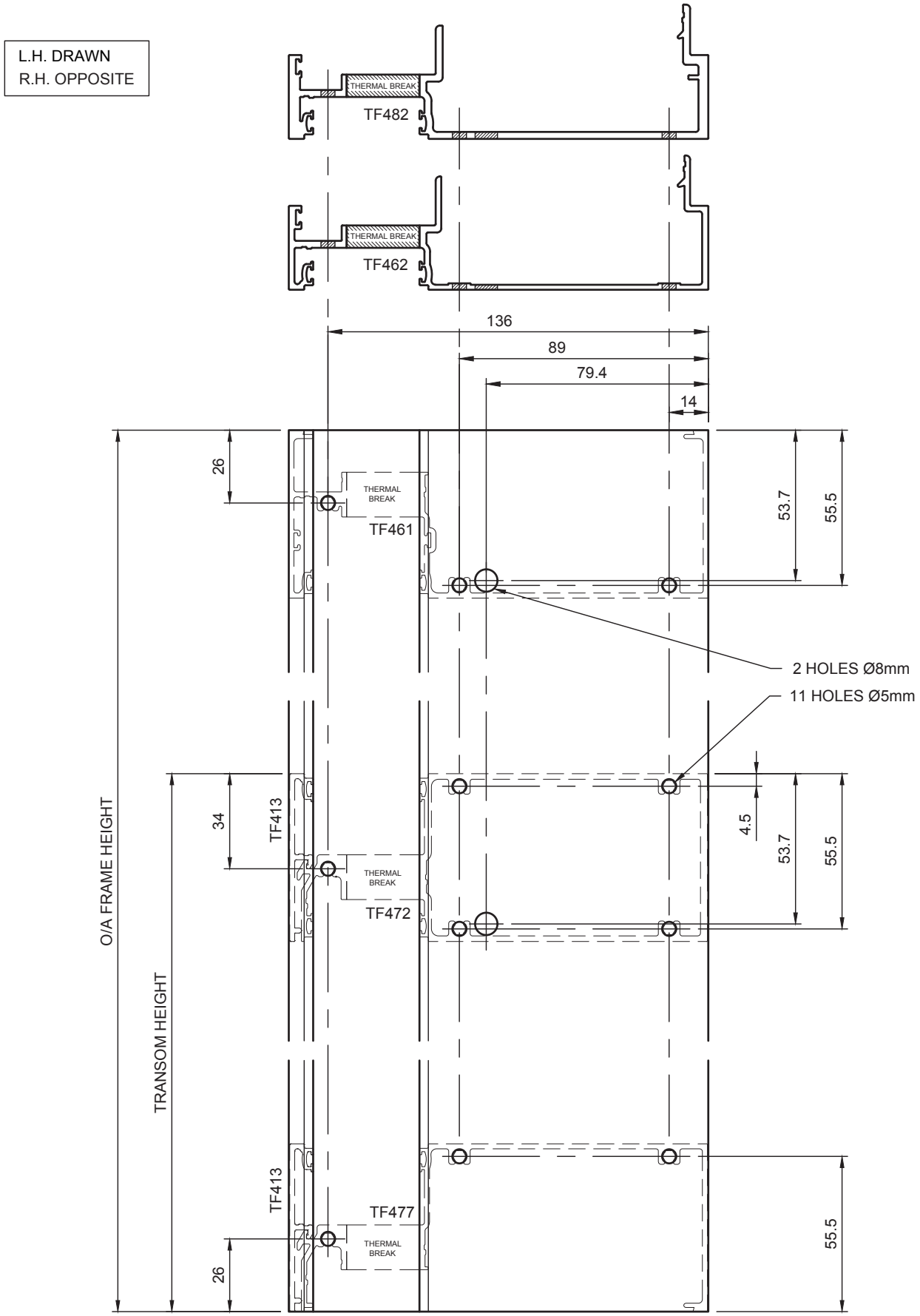
Frame Preparation - Deep pocket Mullions - External Glaze



THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

10. Manufacturing Details

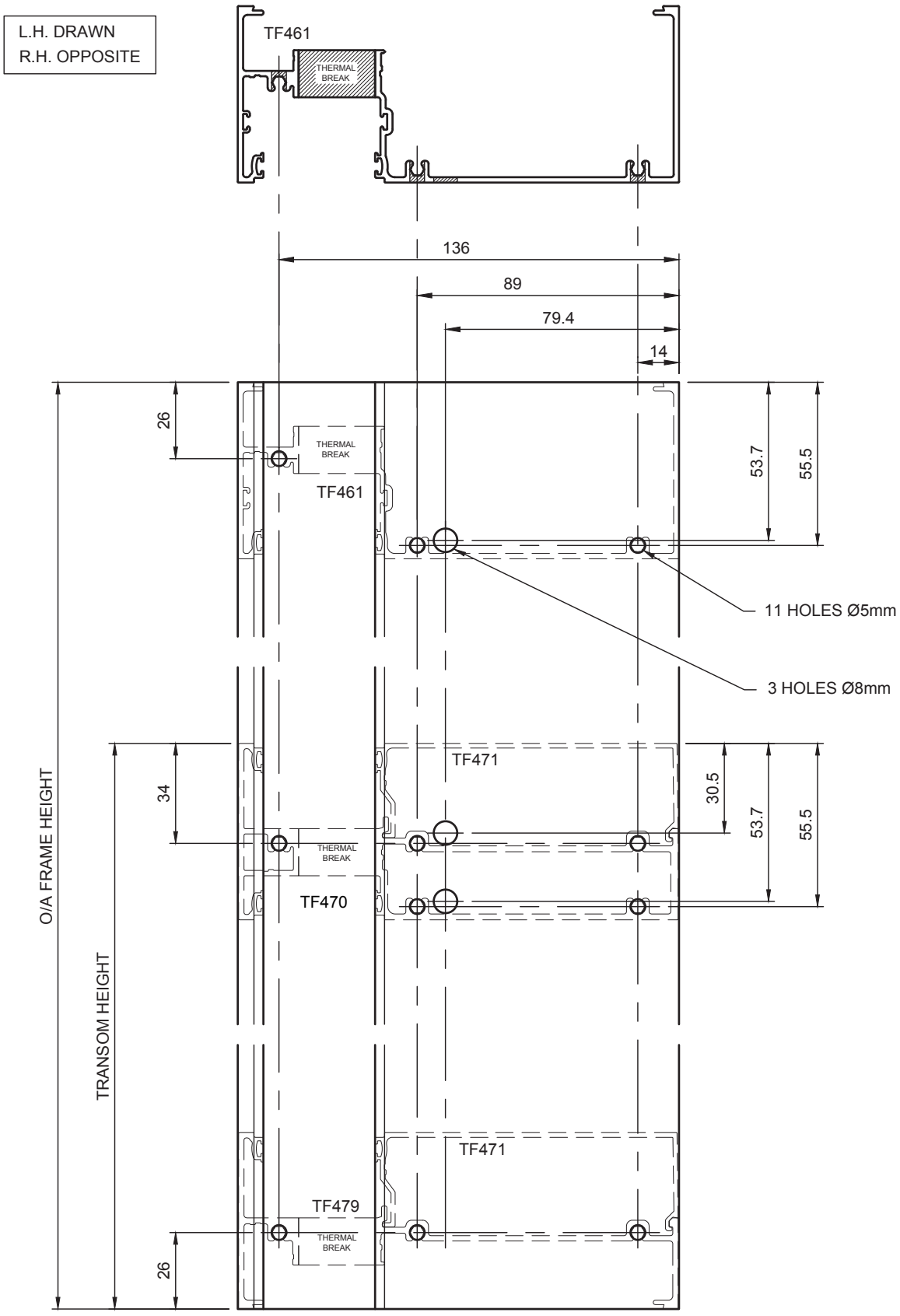
Frame Preparation - Shallow Pocket Mullions - External Glaze



THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

10. Manufacturing Details

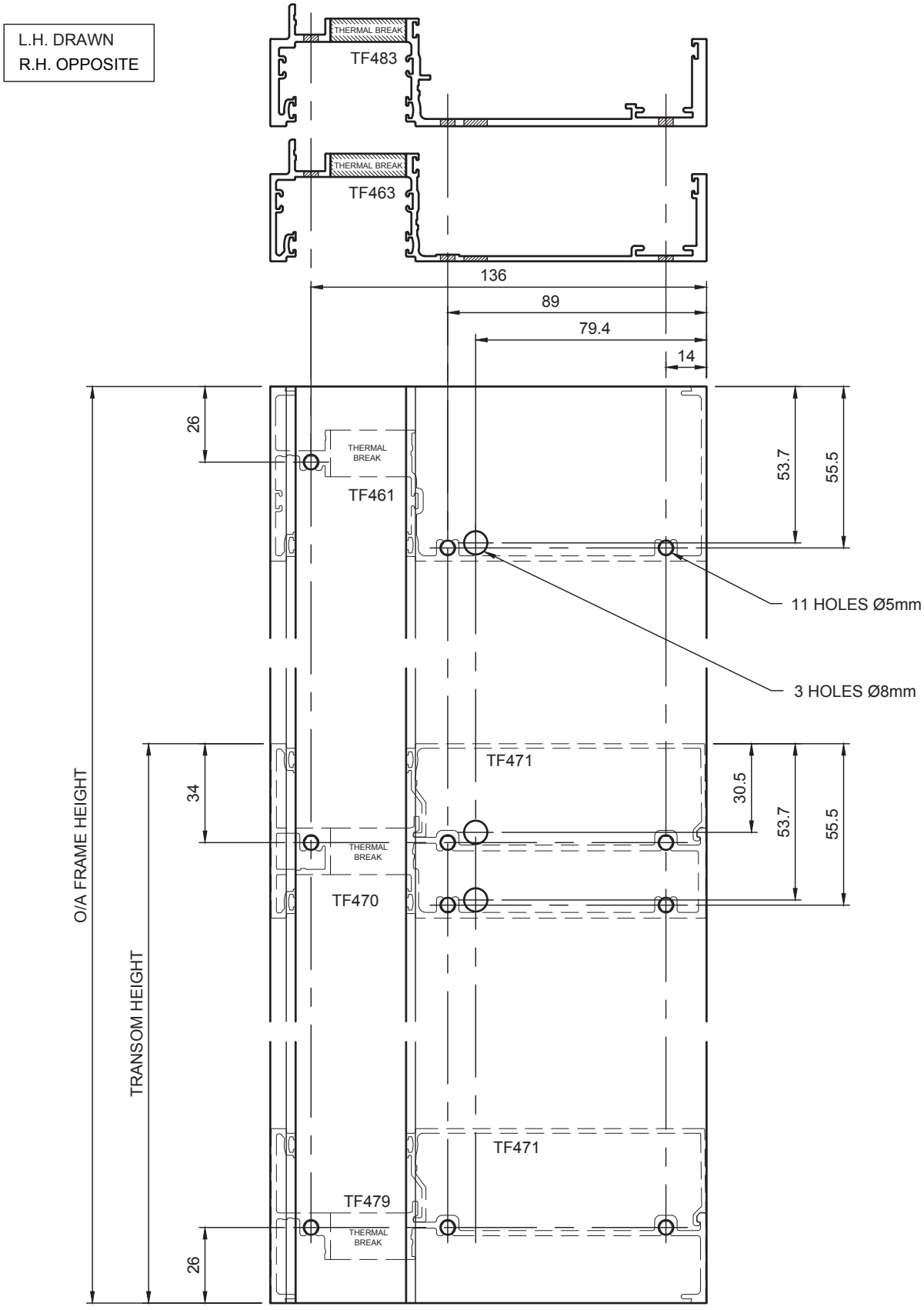
Frame Preparation - Frame/Jamb - Internal Glaze



THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

10. Manufacturing Details

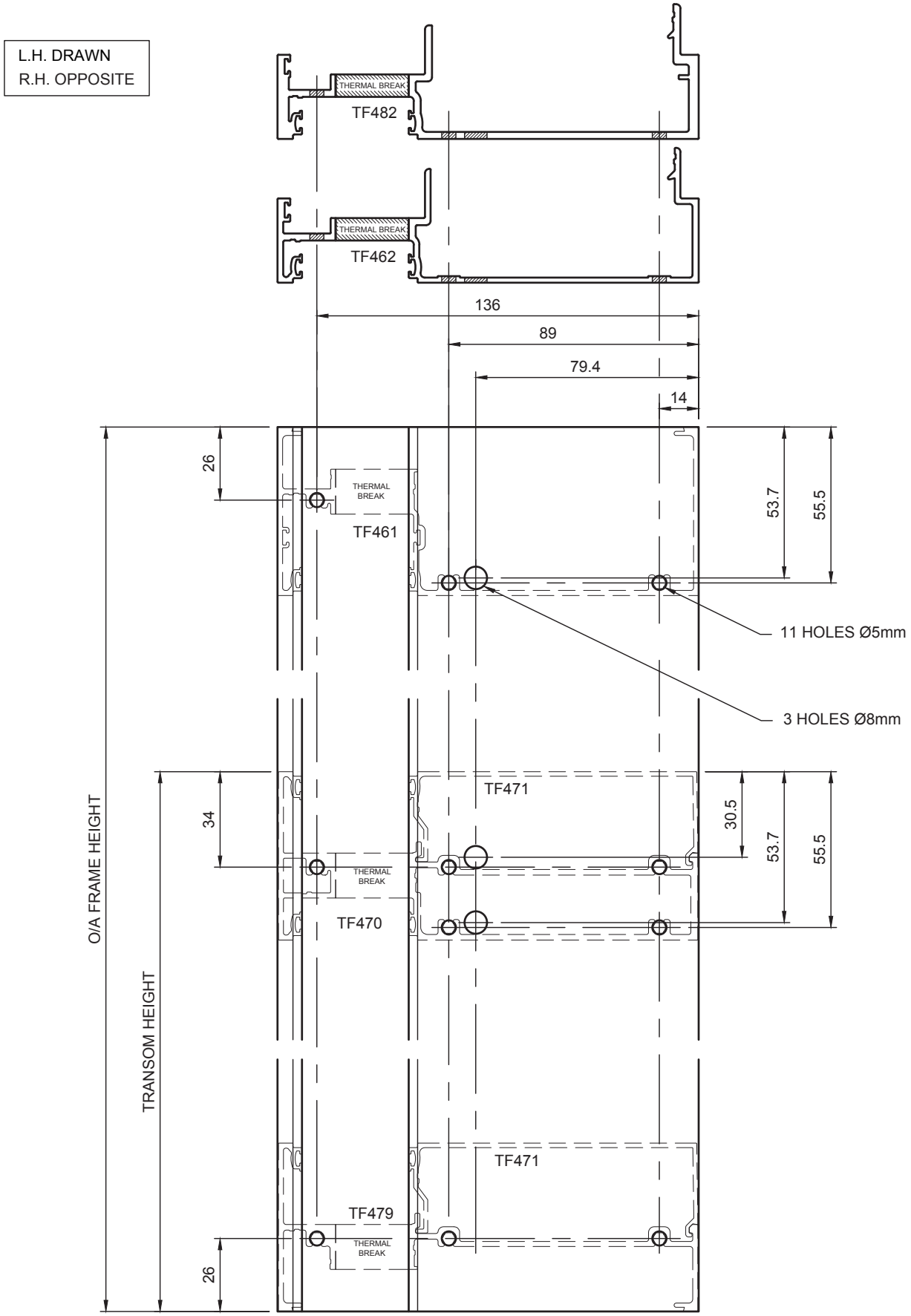
Frame Preparation - Deep Pocket Mullions - Internal Glaze



THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

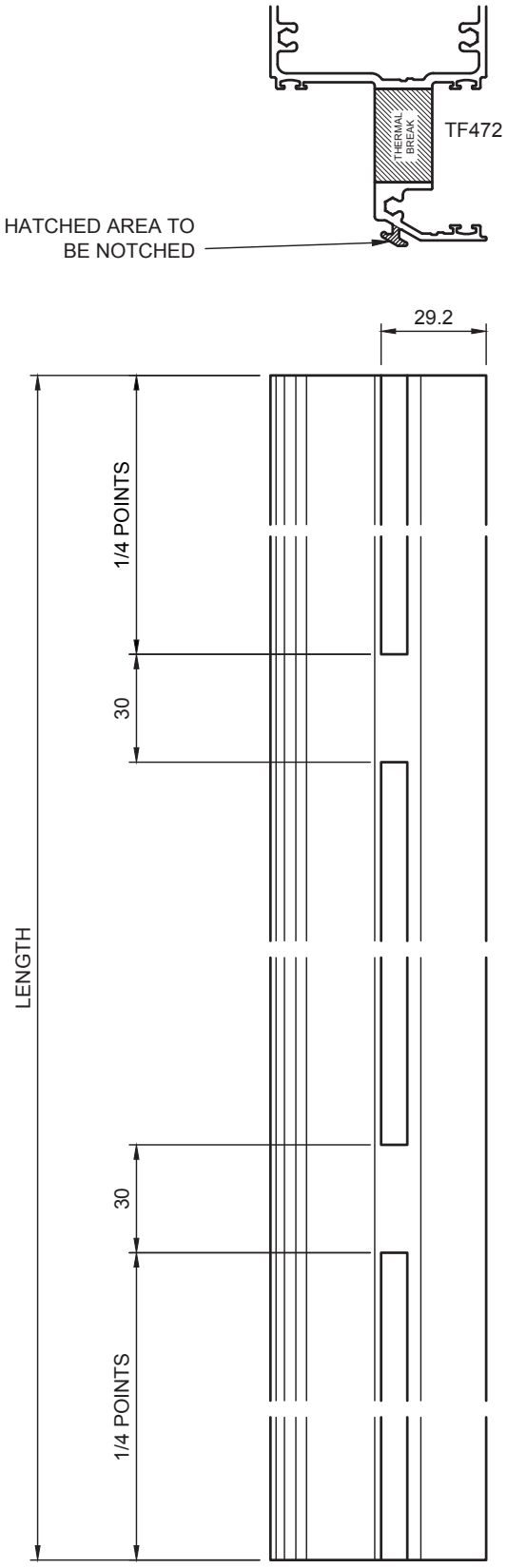
10. Manufacturing Details

Frame Preparation - Shallow Pocket Mullions - Internal Glaze



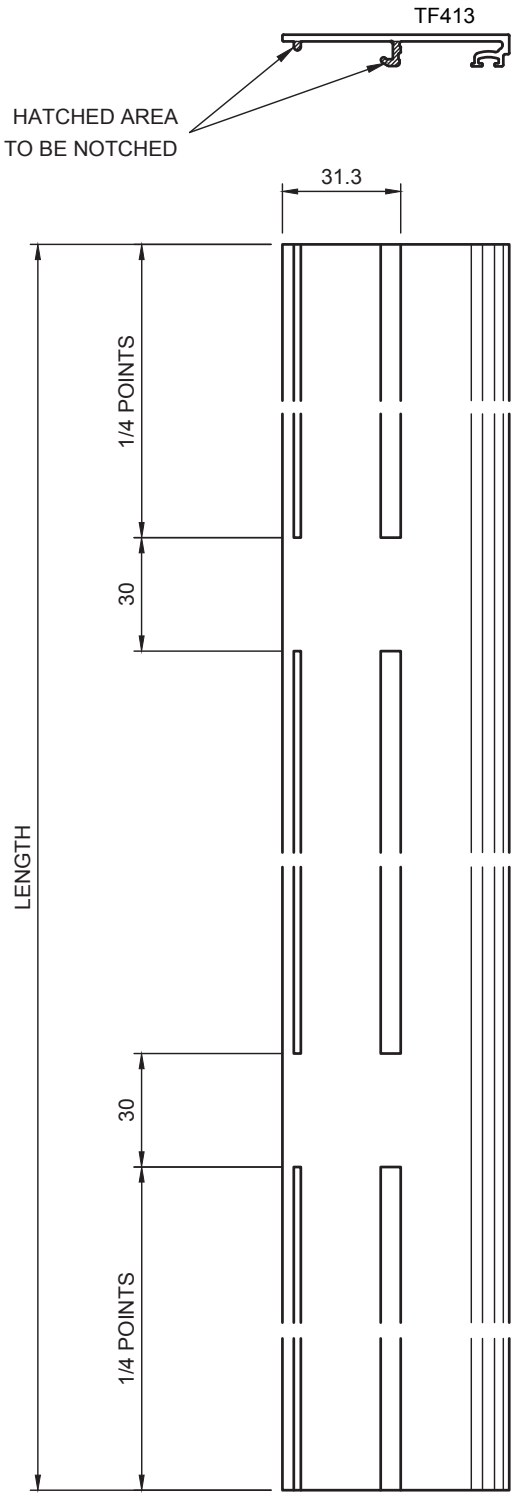
10. Manufacturing Details

Drainage Preparation - External Glaze



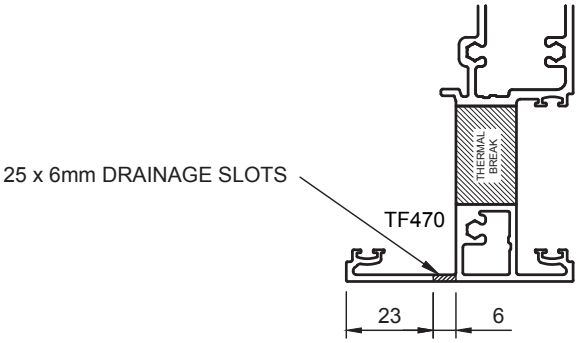
10. Manufacturing Details

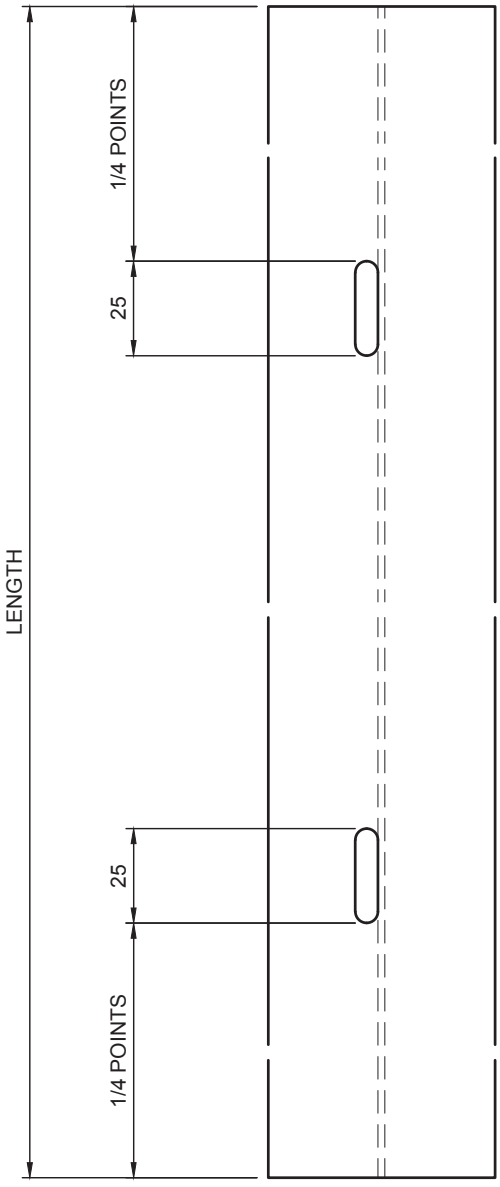
Drainage Preparation - External Glaze



10. Manufacturing Details

Drainage Preparation - Internal Glaze





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

11. Assembly Details

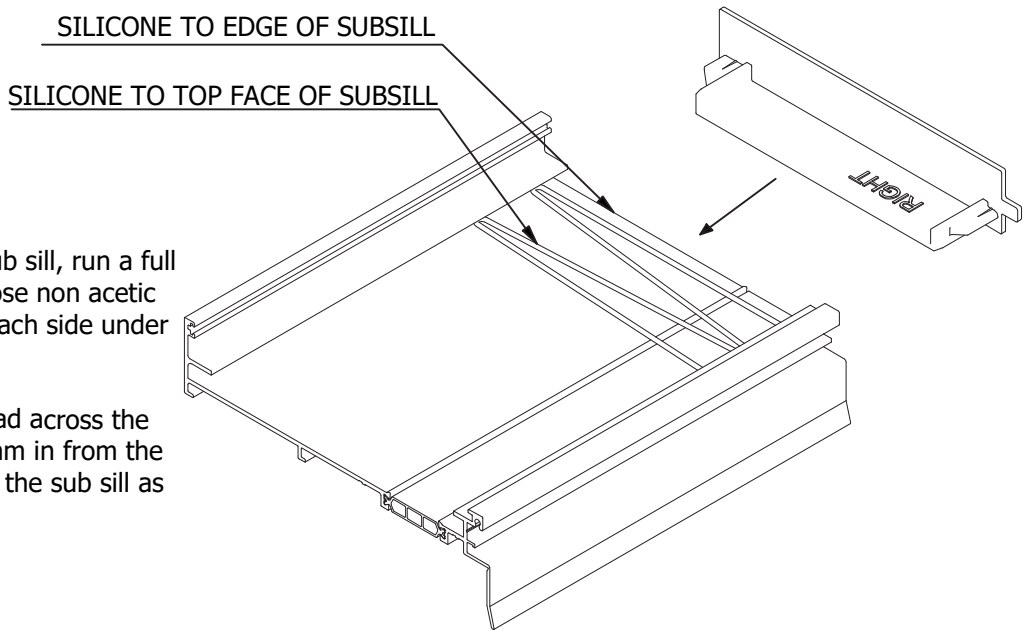
Sub Sill with End Cap

TA20 150mm ThermAFrame Sub Sill End Cap is a purpose designed component reducing labour time required for the installation and sealing of TF606S & TF626S Sub Sill.

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

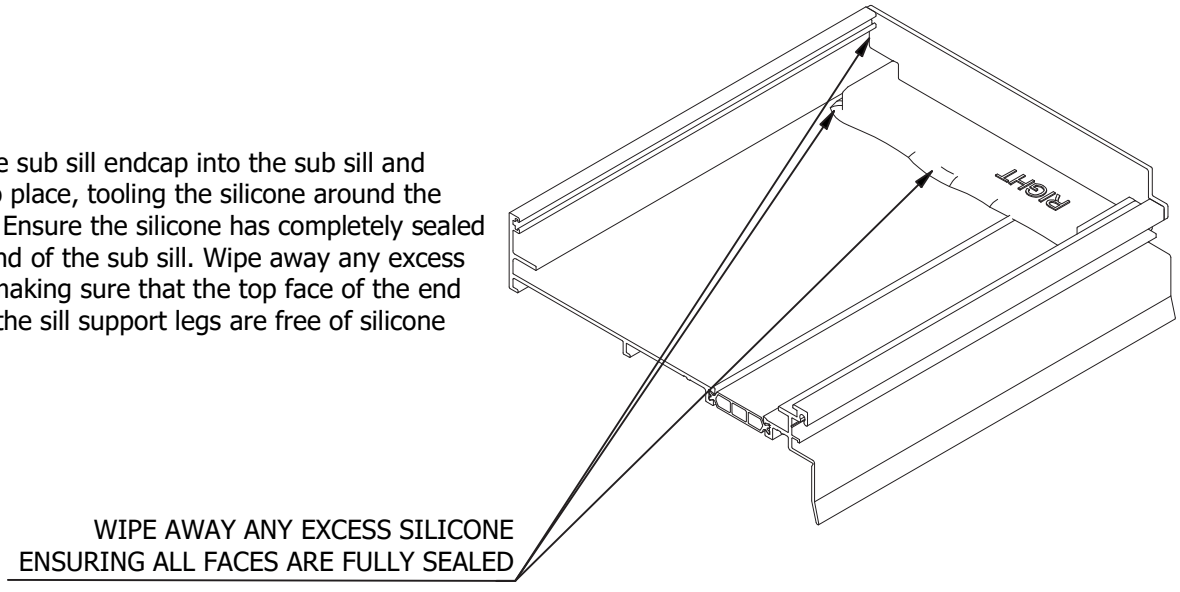
TA20 150mm ThermAFrame Sub Sill End Cap eliminates blow back behind jambs and end walls, also eliminating unnecessary call backs to site to rectify sub sill leaks.

TA20 is available as a set with 1 left and 1 right end.



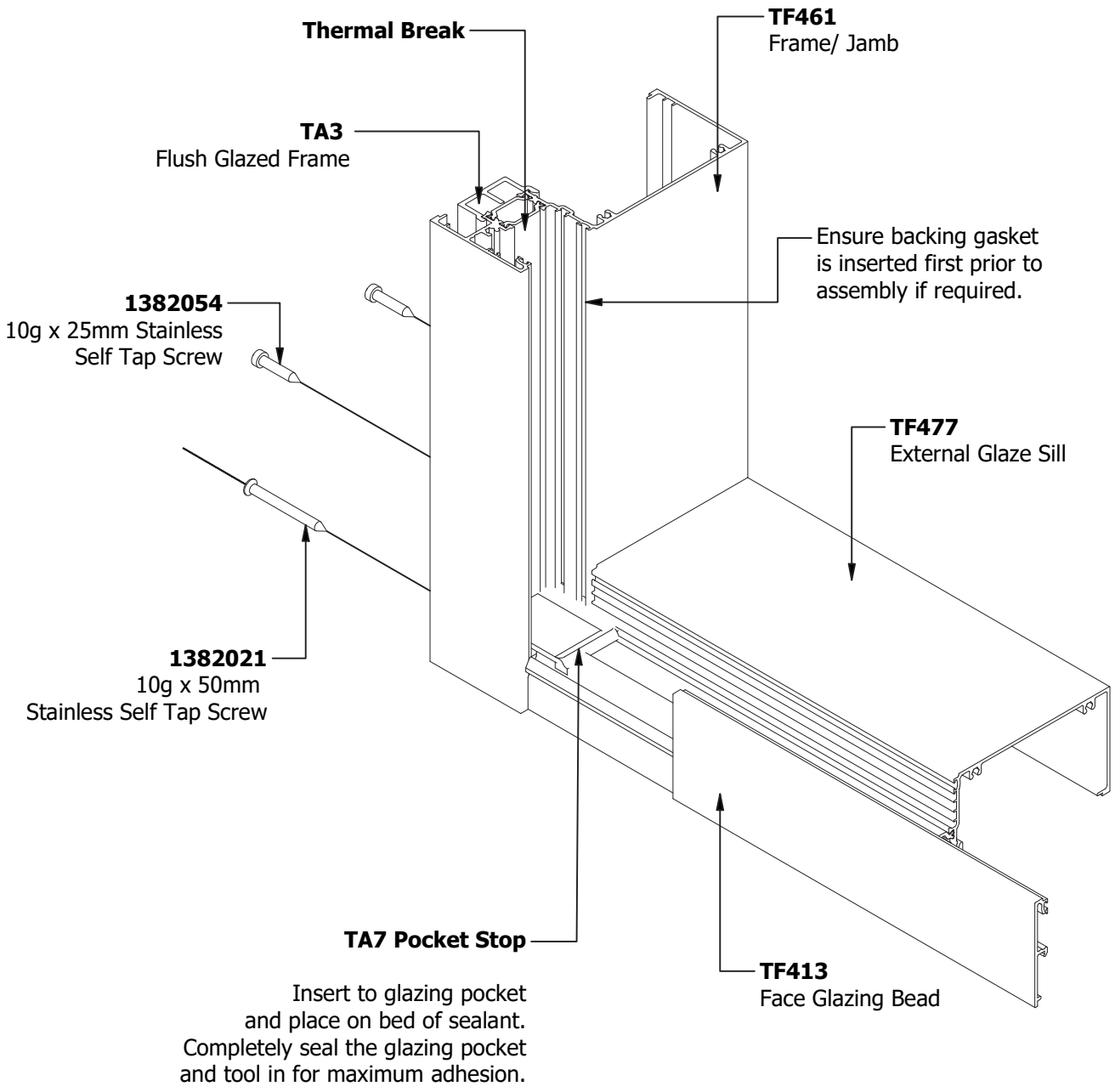
Step 1
Starting from the end of the sub sill, run a full bead of silicone (general purpose non acetic neutral cure) 30mm long, on each side under the sill support legs.

Run a close zig zag pattern bead across the bottom face of the sub sill 30mm in from the end. Apply silicone to edges of the sub sill as shown in detail opposite.



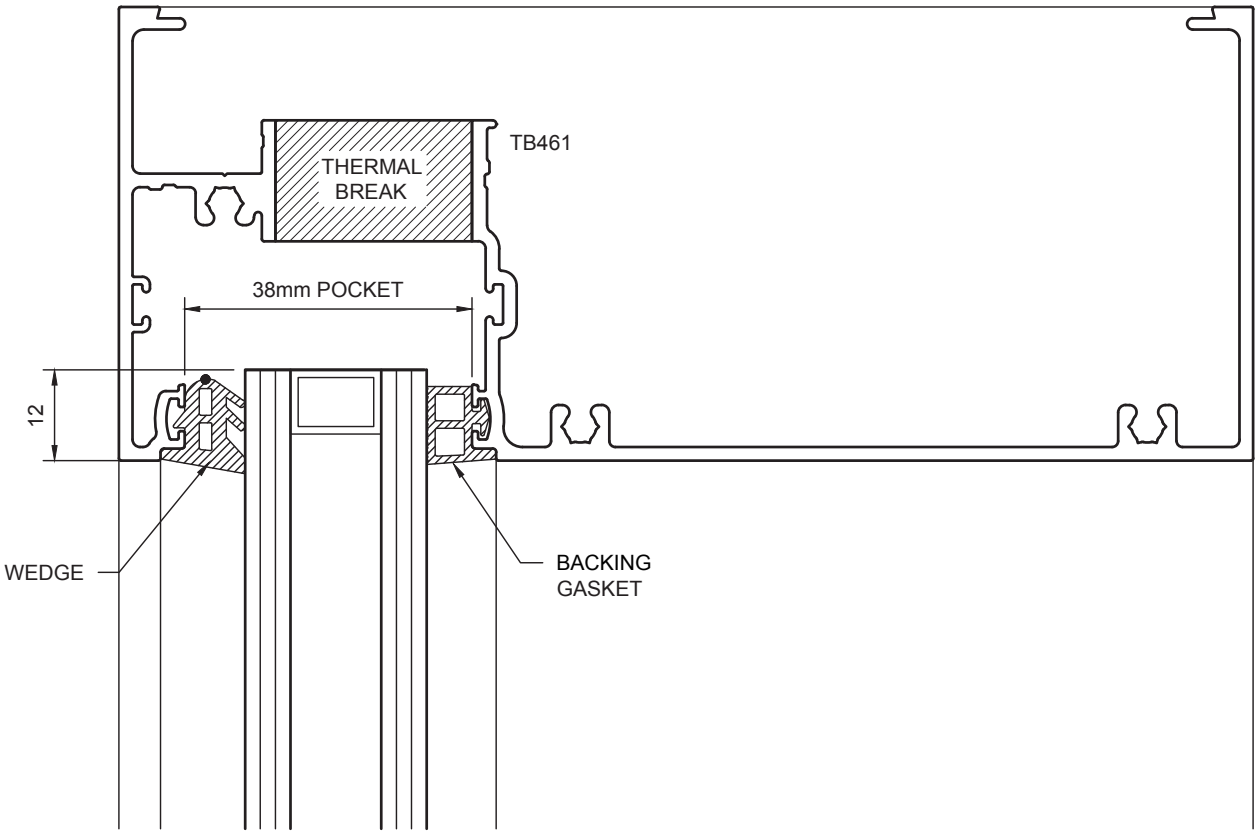
Step 2
Insert the sub sill endcap into the sub sill and push into place, tooling the silicone around the end cap. Ensure the silicone has completely sealed off the end of the sub sill. Wipe away any excess silicone making sure that the top face of the end cap and the sill support legs are free of silicone build up.

11. Assembly Details



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)

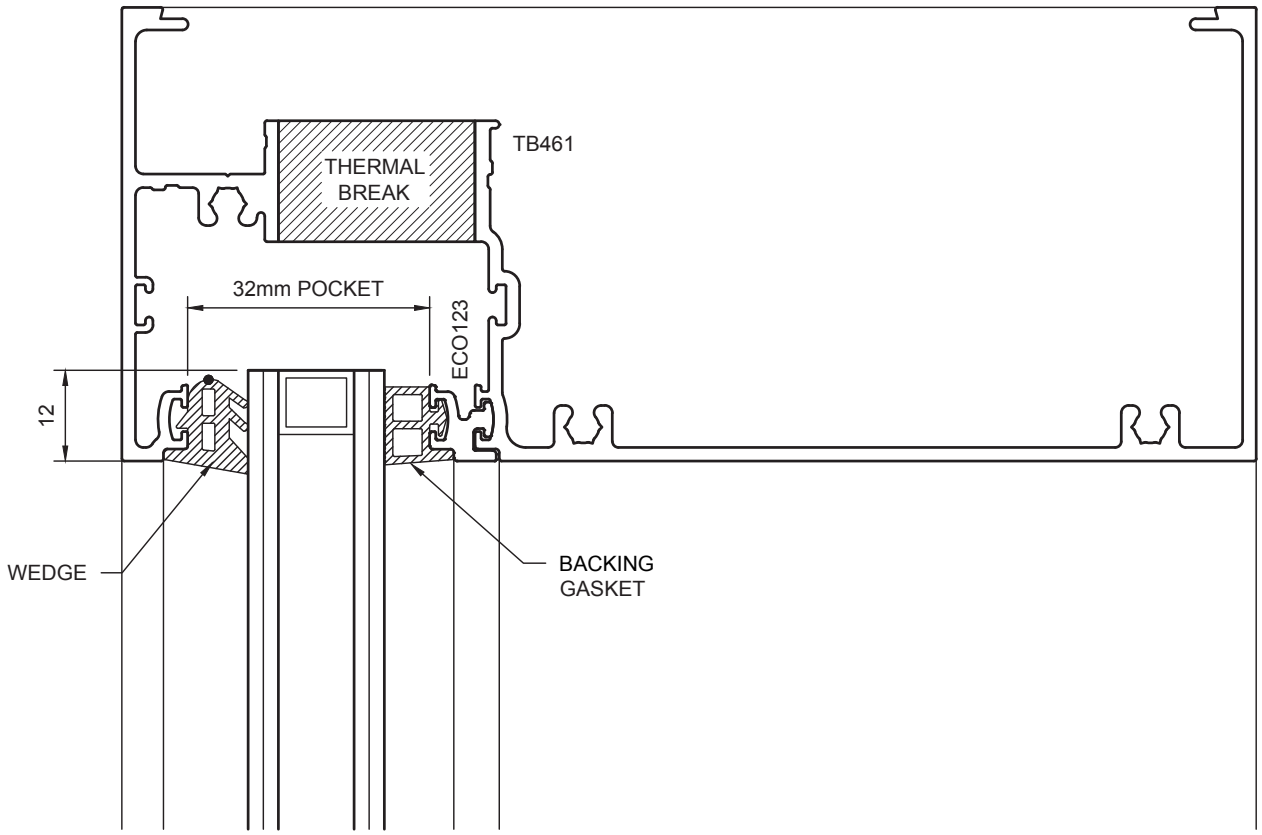
REVERSE GLAZING WEDGE COMBINATIONS FOR INTERNAL GLAZING

Note: For window & door systems requiring a co-extruded captive gasket on the external side of the glazed pocket, Santoprene is the recommended material to be applied.

THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

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)
18mm	ORANGE	GR48 (8mm)	GR49 (6mm)	CE49 (6mm)
20mm	YELLOW	GR46 (6mm)	GR49 (6mm)	CE49 (6mm)
22mm	YELLOW	GR46 (6mm)	GR37 (4mm)	CE37 (4mm)

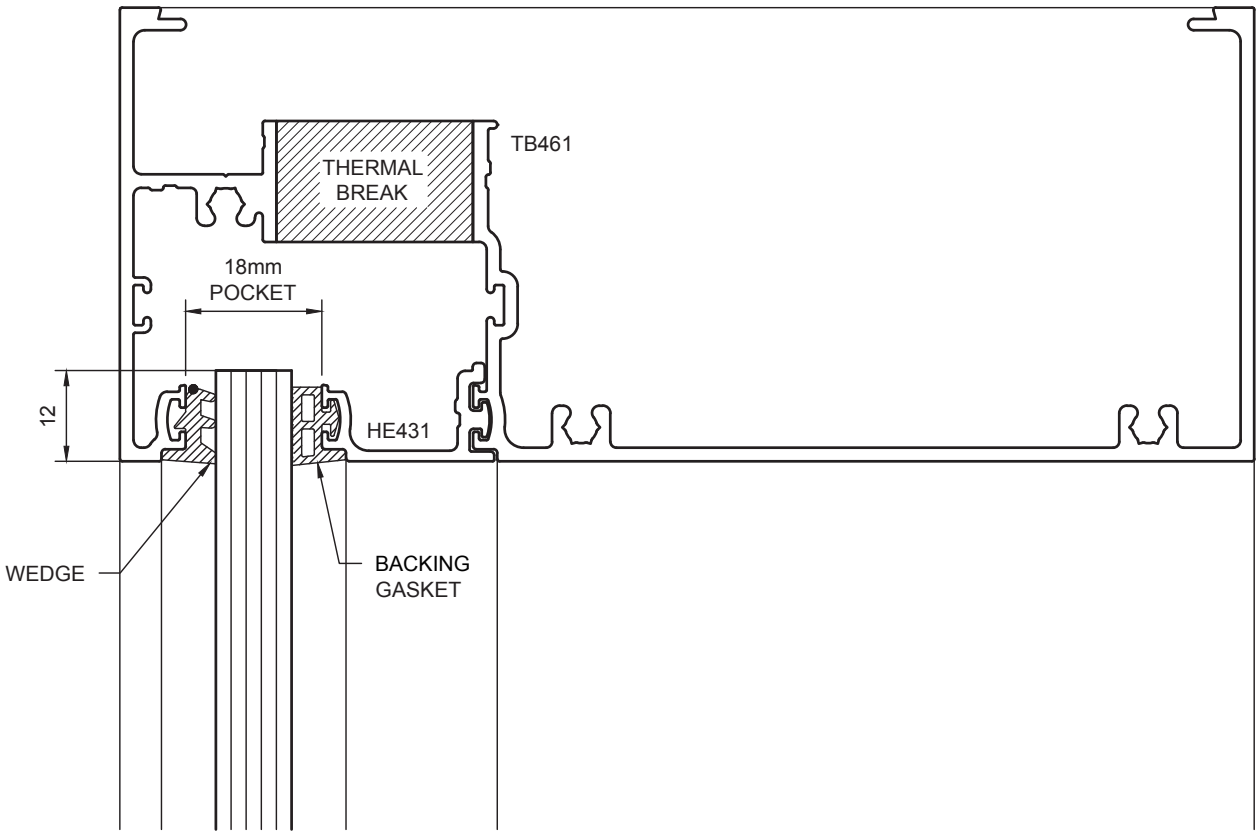
REVERSE GLAZING WEDGE COMBINATIONS FOR INTERNAL GLAZING

Note: For window & door systems requiring a co-extruded captive gasket on the external side of the glazed pocket, Santoprene is the recommended material to be applied.

THERMAFRAME
THERMALLY BROKEN WINDOW AND DOOR SYSTEMS

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

Note: For window & door systems requiring a co-extruded captive gasket on the external side of the glazed pocket, Santoprene is the recommended material to be applied.

FRAMING

Your new **ThermAFrame 150mm 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 150mm Flush Glazed** frame will retain it's good looks and resist the elements for years to come.

The **ThermAFrame 150mm 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 150mm 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 150mm 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.

EVERYTHING ALUMINIUM & HARDWARE

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Phone: 08 8150 6960 | adelaidealuspace@alspec.com.au

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