ECO - 500 CASEMENT

Certificate of Testing

THOMAS BELL-WRIGHT
INTERNATIONAL CONSULTANTS

Certificate Number: CHL06

Date: 2007 December

Project: ECO-500 Thermal Casement Window

System Supplier: Al Hamad Industries Co., (L.L.C.)
Extrusion Division
P.O. Box 6275
Sharjah, U.A.E.

System: ECO-500 Thermal Casement Window

Tested for:

Operation Force Test	Pass
Air Infiltration Test	Pass
Static Cyclic Water Penetration Test	Pass
Structural Performance Test, (+/-)	Pass
Repeat Static Cyclic Water Penetration Test	Pass
Structural Performance Test @ 150%	Pass

Notes: Testing conducted in accordance with ASTM, or industry standards.
This certificate to be read in conjunction with the full report of testing.
Refer to report for performance criteria.

Thomas Bell-Wright International Consultants

Sandy Dweik
Quality Manager

P.O.Box: 26385
DUBAI - U. A. E.
Thomas Bell-Wright Int'l Consultants

Clarence P. Facun
Testing Engineer

Date: 30 December 2007

P.O. BOX 26385 DUBAI, U.A.E. TEL: (+9714) 333-2692 FAX: (+9714) 333-2693 WEB: www.bell-wright.com

b. Air Infiltration Test

PROJECT NAME	ECO-500 CASEMENT THERMAL BREAK WINDOW
Air Infiltration Test ASTM E 283	

Saturday, December 15, 2007
12:20 PM — Reset Date

AMBIENT CONDITION

Air Temperature	22.4	ºC	Barometric Pressure	101.6	mb	Relative Humidity	63	%

TESTING ENGINEER

Clark Facun

Conical nozzle dia.	90.(	mm
Nozzle connection	A- PT L1	
Chamber connection	B- PT L2	

SPECIMEN TEST CRITERIA

Height	1	m
Width	1.8	m
Specimen area	1.8	m
Test Pressure	75	Paf
Length of opening joint	0.0	m
Permitted leakage area	2.06	m³/hr/m²
Permitted leakage(Meter opening joint)	0.0	m³/hr/m
Total permitted leakge	3.71	m³/hr

Update Links

READINGS	Sealed with polythylene sheet		READINGS	Without Polythylene sheet	
Chamber Pressure	75	Pa	Chamber Pressure	75	Pa
Nozzle Pressure	2	Pa	Nozzle Pressure	2	Pa
Nozzle Flow	38.7	m3/hr	Nozzle Flow	38.7	m3/hr
Data recorded at	12:28:48 PM		Data recorded at	12:30:28 PM	

Display — Stop 1 — Display 2 — Stop 2

SUMMARY RESULTS

Specimen Leakage	0.00	m³/hr
Conclusion	Pass	

Signature

c. Static Water Penetration Test

Project Name	ECO-500 CASEMENT THERMAL BREAK WINDOW

Static Cyclic Water Penetration test ASTM E331

Date & Time: Saturday, December 15, 2007 12:45 PM

AMBIENT CONDITION

Air Temperature 25 ºC | Barometric Pressure 101.6 mb | Relative Humidity 62 %

TEST CRITERIA — Update

Width 1.0 m | Height 1.8 m

Chamber Connection B- PT L2 | The spray rack will consist of 2 rows of 3 nozzles

US gallon per minute 2.0 | Test Pressure 137 Pa

Conclusion: Pass

HOUR	MINUTES	SECONDS
0	24.0	0

TIMER

0	24	0

CHAMBER PRESSURE

137

Zero pressure | Start | Stop

Start/reset timer 12:38:55 PM

Calculated finishing time 1:02:55 PM

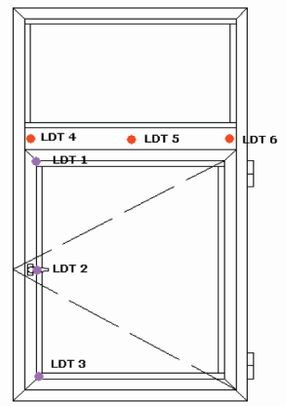
Actual when timer stopped 1:02:55 PM

Clark Facun
Testing Engineer

d. Structural Positive Performance

Project Name:	**ECO-500 CASEMENT THERMAL BREAK WINDOW.**				
Structural Performance ASTM E 330					
Clark Facun			Date	Saturday, December 15, 2007	
Testing Engineer				1:26 PM	
Ambient Condition			**Test Criteria**		
Ambient Temperature	29 ºC		Design wind load	720 Pa	
Barometric Pressure	101.8 mb		Mullion length to be tested	1.1 m	
Relative Humidity	62 %		Transom length to be tested	0.9 m	Positive
			Max. allowable deflection - mullion	6.0 mm	
			Max. allowable deflection - transom	5.0 mm	
Live Readings	**POSITIVE WIND LOAD**				
Chamber Pressure	722 Pa		Actual Mullion Deflection	4.2 mm	
				Pass	
LDT 1	3.1 mm	LDT 6 0.7 mm	Actual Transom Deflection	1.3 mm	
LDT 2	6.5 mm	LDT 7 0 mm		Pass	
LDT 3	1.5 mm	LDT 8 0 mm			
LDT 4	0.7 mm	LDT 9 0 mm			
LDT 5	2.0 mm	LDT 10 0 mm			
RESIDUAL DEFORMATION					
LDT 1	0.6 mm	LDT 6 0 mm			
LDT 2	0.9 mm	LDT 7 0 mm			
LDT 3	0.2 mm	LDT 8 0 mm			
LDT 4	0 mm	LDT 9 0 mm			
LDT 5	0.2 mm	LDT 10 0 mm			
Data recorded @	1:26 PM		Conclusion	Pass	

Drawing



e. Structural Negative Performance - Method A

Project Name:	**ECO-500 CASEMENT THERMAL BREAK WINDOW.**
Structural Performance ASTM E 330	
Date	Saturday, December 15, 2007 1:26 PM
Clark Facun	
Testing Engineer	

Ambient Condition

Ambient Temperature	29	ºC
Barometric Pressure	101.8	mb
Relative Humidity	62%	

Test Criteria

Design wind load	720	Pa
Mullion length to be tested	1.1	m
Transom length to be tested	0.9	m
Max. allowable deflection - mullion	6.0	mm
Max. allowable deflection - transom	5.0	mm

Negative

Live Readings — **NEGATIVE WIND LOAD**

Chamber Pressure: **721** Pa

LDT 1	2.2	mm	LDT 6	0.7	mm
LDT 2	4.8	mm	LDT 7	0	mm
LDT 3	1.1	mm	LDT 8	0	mm
LDT 4	0.8	mm	LDT 9	0	mm
LDT 5	2.4	mm	LDT 10	0	mm

Actual Mullion Deflection: 3.15 — Pass

Actual Transom Deflection: 1.65 — Pass

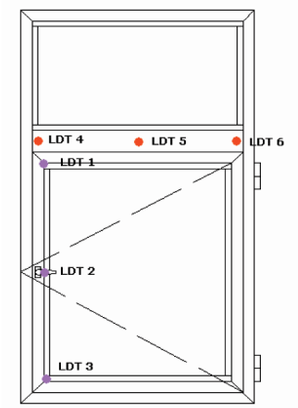
RESIDUAL DEFORMATION

LDT 1	0.8	mm	LDT 6	0.2	mm
LDT 2	1.9	mm	LDT 7	0	mm
LDT 3	0.5	mm	LDT 8	0	mm
LDT 4	0.3	mm	LDT 9	0	mm
LDT 5	0.6	mm	LDT 10	0	mm

Data recorded @ 1:28 PM

Conclusion: Pass

Drawing



f. Static Water Penetration Test

Project Name	ECO-500 CASEMENT THERMAL BREAK WINDOW.

Post Structural - Static Cyclic Water Penetration test ASTM E33

Date & Time: Saturday, December 15, 2007 1:40 PM

AMBIENT CONDITION

Air Temperature 29 ºC | Barometric Pressure 101.3 mb | Relative Humidity 58 %

TEST CRITERIA — Update

Width 1.0 m | Height 1.8 m

Chamber Connection B- PT L2

The spray rack will consist of 2 rows of 3 nozzles

US gallon per minute 2.0

Test Pressure 137 Pa

Conclusion: Pass

HOUR	MINUTES	SECONDS
0	24.0	0

TIMER

0	24	1

CHAMBER PRESSURE

143

Zero pressure | Start | Stop

Start/reset timer 1:44:37 PM

Calculated finishing time 2:08:37 PM

Actual when timer stopped 2:08:38 PM

Clark Facun
Testing Engineer

g. Structural Positive Performance @ 1.5 Design Wind Load - Method A

Project Name: ECO-500 CASEMENT THERMAL BREAK WINDOW.

Structural Performance ASTM E 330 - Safety

Date: Saturday, December 15, 2007 3:15 PM

Clark Facun
Testing Engineer

Ambient Condition

Ambient Temperature	31	ºC
Barometric Pressure	101.3	mb
Relative Humidity	56%	

Test Criteria

Design wind load	1080	Pa
Mullion length to be tested	1.1	m
Transom length to be tested	0.9	m
Max. allowable deformation - mullion	1.0	mm
Max. allowable deformation - transom	1.0	mm

Positive

Live Readings — POSITIVE WIND LOAD

Chamber Pressure: **1080** Pa

LDT 1	3.4	mm	LDT 6	0.9	mm
LDT 2	8.7	mm	LDT 7	0	mm
LDT 3	3.1	mm	LDT 8	0	mm
LDT 4	1.3	mm	LDT 9	0	mm
LDT 5	3.2	mm	LDT 10	0	mm

Actual Mullion Deflection: 5.45 mm

Actual Transom Deflection: 1.85 mm

Actual Mullion Deformation: 0.8 mm — Pass

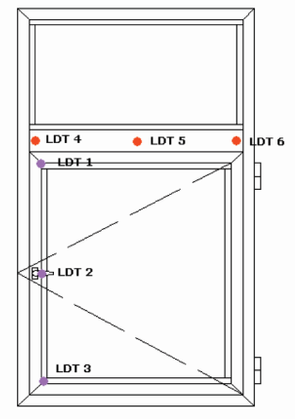
Actual Mullion Deformation: 0.3 mm — Pass

RESIDUAL DEFORMATION

LDT 1	0.4	mm	LDT 6	0	mm
LDT 2	1.2	mm	LDT 7	0	mm
LDT 3	0.4	mm	LDT 8	0	mm
LDT 4	0.2	mm	LDT 9	0	mm
LDT 5	0.4	mm	LDT 10	0	mm

Data recorded @ 3:21 PM

Drawing



h. Structural Negative Performance @ 1.5 Design Wind Load - Method A

Project Name:	**ECO-500 CASEMENT THERMAL BREAK WINDOW.**		
Structural Performance ASTM E 330 - Safety			
Clark Facun		Date	Saturday, December 15, 2007 3:21 PM
Testing Engineer			

Ambient Condition

Ambient Temperature	31	ºC
Barometric Pressure	101.3	mb
Relative Humidity	56%	

Test Criteria

Design wind load	1080	Pa
Mullion length to be tested	1.1	m
Transom length to be tested	0.9	m
Max. allowable deflection - mullion	1.0	mm
Max. allowable deflection - transom	1.0	mm

Negative

Live Readings — **NEGATIVE WIND LOAD**

Chamber Pressure: **1081** Pa

LDT 1	1.7	mm	LDT 6	0.8	mm
LDT 2	4	mm	LDT 7	0	mm
LDT 3	1.2	mm	LDT 8	0	mm
LDT 4	1	mm	LDT 9	0	mm
LDT 5	3.1	mm	LDT 10	0	mm

Actual Mullion Deflection: 2.55

Actual Transom Deflection: 1.15

Actual Mullion Deformation: 0.3 mm — Pass

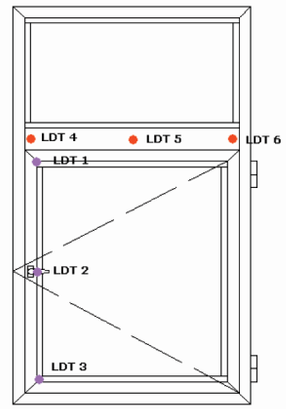
Actual Mullion Deformation: 0.5 mm — Pass

RESIDUAL DEFORMATION

LDT 1	0.3	mm	LDT 6	0.1	mm
LDT 2	0.5	mm	LDT 7	0	mm
LDT 3	0.1	mm	LDT 8	0	mm
LDT 4	0.1	mm	LDT 9	0	mm
LDT 5	0.6	mm	LDT 10	0	mm

Data recorded @ 3:36 PM

Drawing



ECO - 500 CASEMENT

THERMAL TRANSMITTANCE ACCORDING TO EN ISO 10077-2

Theory

The thermal transmittance of a frame according to EN ISO 10077-2:

POWERED BY TECHNOFORM BAUTEC

$$U_f = \frac{L_{2D} - U_p * l_p}{l_f} \quad \text{and} \quad L_{2D} = \frac{q_{l,tot}}{\Delta\theta}$$

with:
- U_f : thermal transmittance of the window frame [W/m ^{2}K]
- U_p : thermal transmittance of the flanking panel [W/m ^{2}K]
- l_p : projected width of the flanking panel [m]
- l_f : projected width of the window frame [m]
- L_{2D} : two-dimensional coupling coefficient [W/mK]
- $q_{l,tot}$: total heat flow through the window frame and the flanking panel [W/m]
- $\Delta\theta$: temperature difference between inside (θi) and outside (θe) [K]

Calculation

Item: elite 21 lateral section bisco re

input data:	$q_{l,tot}$ =	12.158 W/m	R_{se} =	0.04	m^2K/W
	θ_e =	0.0 °C	R_{si} =	0.13	m^2K/W
	θ_i =	20.0 °C			
	d_p =	0.0238 m			
	λ_p =	0.035 W/m*K			
	U_p =	1.176 W/m^2K			
	l_p =	0.190 m			
			calculation results: L_{2D} =	0.61	W/mK
	l_f =	0.0955 m	**U_f =**	**4.02**	**W/m^2K**

$q_{l,tot}$: alphanumeric output
heat losses per boundary condition

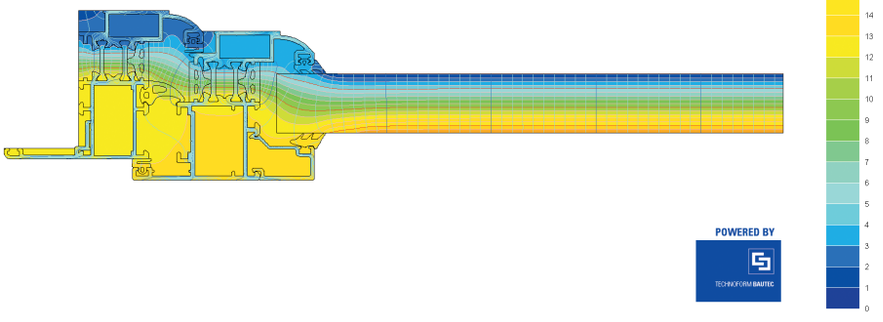
$\Delta\theta$: input data, surface boundary conditions:
inside temperature minus outside temperature

U_p : calculation, using the following formula:

$$U_p = \left[\frac{1}{h_e} + \sum \frac{d_p}{\lambda_p} + \frac{1}{h_i} \right]^{-1}$$

with:
- h_e / h_i : ext./int. surface heat transfer coeff. [W/m ^{2}K]
- d_p : thickness of panel p [m]
- λ_p : thermal conductivity of panel p [W/mK]

l_p / l_f : input data: dimensions of the item



ECO - 500 CASEMENT

THERMAL TRANSMITTANCE ACCORDING TO EN ISO 10077-2

Theory

The thermal transmittance of a frame according to EN ISO 10077-2:

POWERED BY TECHNOFORM BAUTEC

$$U_f = \frac{L_{2D} - U_p * l_p}{l_f} \quad \text{and} \quad L_{2D} = \frac{q_{l,tot}}{\Delta\theta}$$

with:
- U_f : thermal transmittance of the window frame [W/m ^{2}K]
- U_p : thermal transmittance of the flanking panel [W/m ^{2}K]
- l_p : projected width of the flanking panel [m]
- l_f : projected width of the window frame [m]
- L_{2D} : two-dimensional coupling coefficient [W/mK]
- $q_{l,tot}$: total heat flow through the window frame and the flanking panel [W/m]
- $\Delta\theta$: temperature difference between inside (θi) and outside (θe) [K]

Calculation **Item:** elite cental section bisco 2

input data:	$q_{l,tot}$ =	19.704	W/m	R_{se} =	0.04	m^2K/W
	θ_e =	0.0	°C	R_{si} =	0.13	m^2K/W
	θ_i =	20.0	°C			
	d_p =	0.0241	m			
	λ_p =	0.035	W/m*K			
	U_p =	1.165	W/m^2K			
	l_p =	0.390	m			
				calculation results: L_{2D} =	0.99	W/mK
	l_f =	0.1521	m	**U_f =**	**3.49**	**W/m^2K**

$q_{l,tot}$: alphanumeric output
heat losses per boundary condition

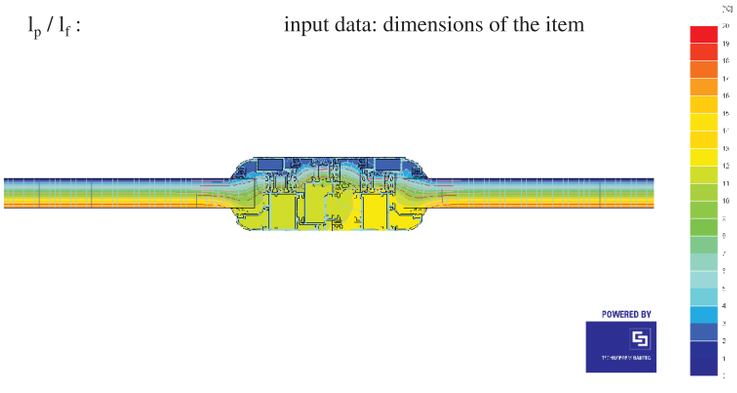
$\Delta\theta$: input data, surface boundary conditions:
inside temperature minus outside temperature

U_p : calculation, using the following formula:

$$U_p = \left[\frac{1}{h_e} + \sum \frac{d_p}{\lambda_p} + \frac{1}{h_i} \right]^{-1}$$

with:
- h_e / h_i ext./int. surface heat transfer coeff. [W/m ^{2}K]
- d_p thickness of panel p [m]
- λ_p thermal conductivity of panel p [W/mK]

l_p / l_f : input data: dimensions of the item



ECO - 500 CASEMENT

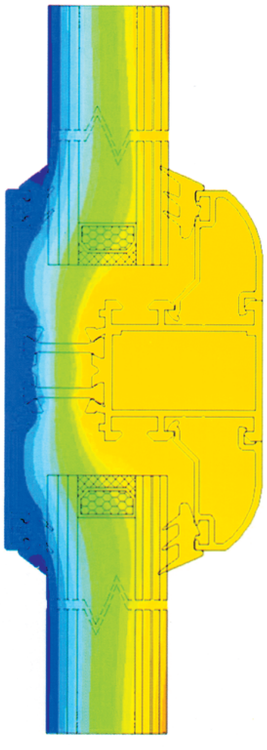
Material Data Sheet

Insulating Profiles made of PA 66 GF25 – dry impact resistant

No.	Characteristic	Reference standard	Unit	Samples prepared from extruded insulating strips		Injected-moulded samples
				Dry [1]	Humidity equilibrium [2]	Dry [1]
1	Melting temperature	EN ISO 11357-3	°C	min. 250	min. 250	min. 250
2	Density	EN ISO 1183-1 or -3	g / cm³	1.3 +/- 0.05	1.3 +/- 0.05	1.3 +/- 0.05
3	Annealing residue (glass fibre content)	EN ISO 1172	%	25 +/- 2.5	25 +/- 2.5	25 +/- 2.5
4	Shore hardness D	EN ISO 868	–	82 +/- 4	78 +/- 4	82 +/- 4
5	Impact strength	EN ISO 179-1 [3] / DIN 53453	kJ / m²	min. 30 or without break	min. 40 or without break	min. 35 or without break
6	Tensile strength	EN ISO 527-2 and -4	N / mm²	min. 80	min. 50	min. 110
7	Young´s modulus	EN ISO 527-2 and -4	N / mm²	min. 4,500	min. 2,000	min. 6,000
8	Elongation at break	EN ISO 527-2 and -4	%	min. 3	min. 7	min. 3

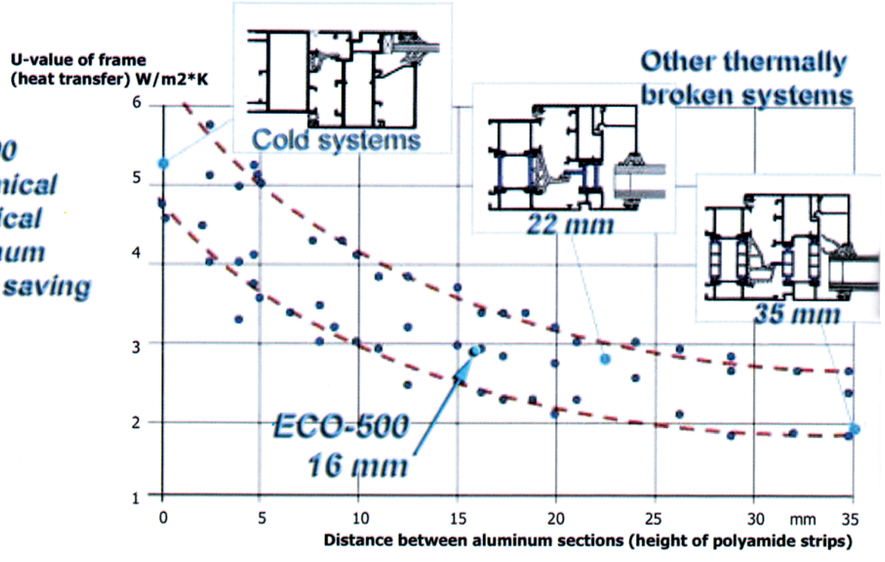
1) Sample water content less than 0.2 % by weight 2) Equilibrium state (EN ISO 1110) 3) Method 1fU

ISOTHERMIC DIAGRAM
ECO-500 application



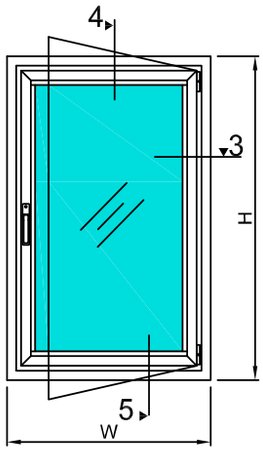
ECO-500
Economical
eCological
Optimum
Energy saving

Energy saving depends on height of polyamide strips (schematically)

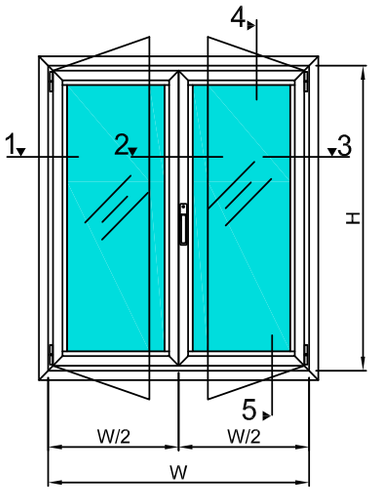


SIDE HUNG WINDOW INWARD OPENABLE

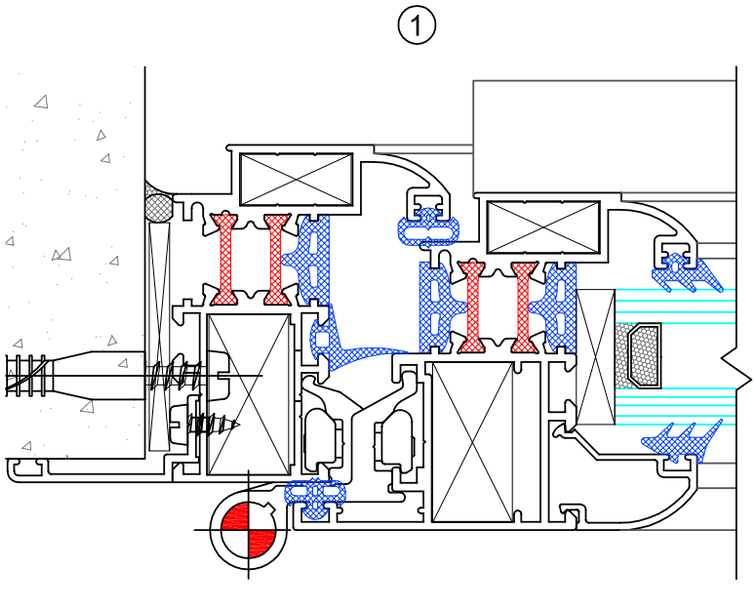
ECO - 500

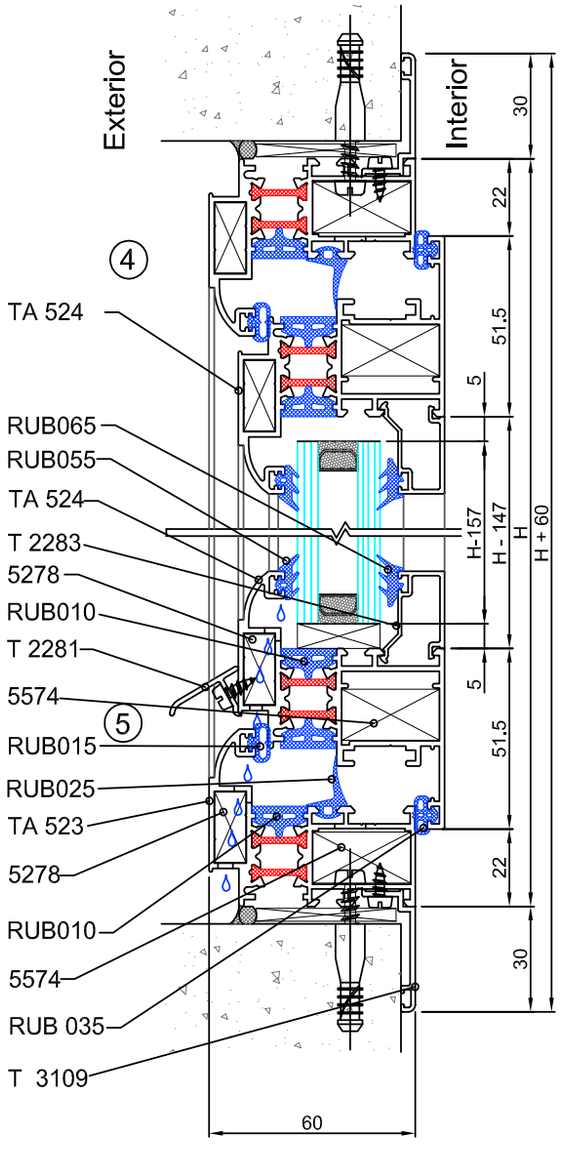


SINGLE LEAF

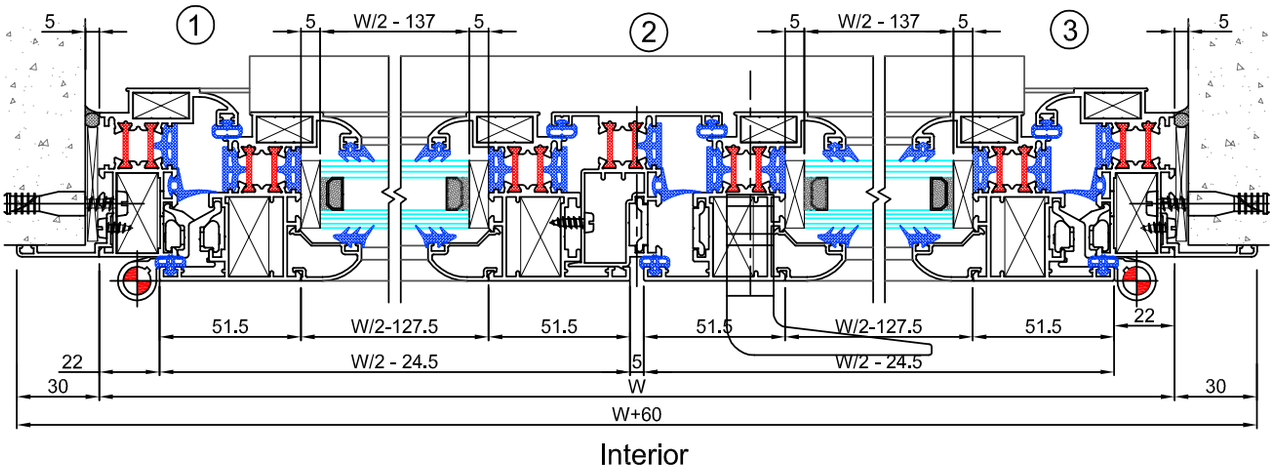


DOUBLE LEAF





Exterior



Interior

THERMAL BREAK
SIDE HUNG WINDOW INWARD OPENABLE

ECO - 500

PROFILE CUTTING LIST

ITEM No.	DESCRIPTION & SECTION SHAPE	PROFILE No.	PROFILE CUTTING ANGLE	CUTTING SIZE	No. OF PIECES	REMARKS
1.	FRAME WIDTH	TA 523	45°	W	02	W
2.	FRAME HEIGHT	TA 523	45°	H	02	H
3.	SASH WIDTH	TA 524	45°	W - 44	02	W - 44 (SINGLE W)
					04	W/2 - 24.5(DOUBLE W)
4.	SASH HEIGHT	TA 524	45°	H - 44	02	(SINGLE W)
					04	(DOUBLE W)
5.	ADOPTER	TA 518		H - 44	01	H - 44
6.	CONNECTING ROD	T 2310		1 - H	01	1H
7.	DROPER WIDTH	T 2281		W -44	01	W - 44 (SINGLE W)
					02	W/2 - 24.5(DOUBLE W)
8.	ARCHITRIVE WIDTH	T 3109	45°	W + 60	02	W + 60
9.	ARCHITRIVE HEIGHT	T 3109	45°	H + 60	02	H + 60
10.	GL CLIP	T 2283		W - 147	02	W - 147 (SINGLE W)
					04	W/2 - 127.5(DOUBLE W)
11.	GL CLIP	T 2282		H -191	02	H - 191 (SINGLE W)
					04	H - 191 (DOUBLE W)
12.	CORNER CLEAT FOR FRAME	5574		28.0	04	MILL FINISH
13.	CORNER CLEAT FOR FRAME	5278		8.3	04	MILL FINISH (SINGLE W)
					08	MILL FINISH (DOUBLE W)
14.	CORNER CLEAT FOR SASH	5574		28.0	04	MILL FINISH
15.	CORNER CLEAT FOR SASH	5278		8.3	04	MILL FINISH (SINGLE W)
					08	MILL FINISH (DOUBLE W)

ACCESSORIES LIST

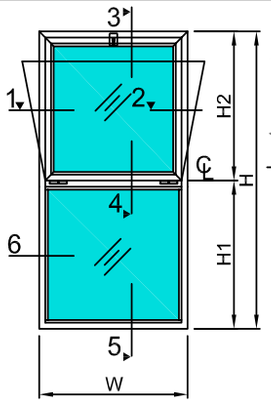
ITEM No.	ACCESSORY CODE No.	DESCRIPTION	FINISH	SINGLE LEAF	DOUBLE LEAF
1.	00120N	HINGES FOR OVERLAP	P. C	02	04
2.	01150	UNICA HANDLE	P. C	01	01
3.	04070	KIT FOR HANDLE (OPEN IN)	M. F	01	01
4.	0103	WING CLOSING PLUG	M. F	-	1 SET
5.	02111	FLUSH BOLT FOR COMBINED WING	M. F	-	1 SET
6.	A300	PLASTIC 5mm GL BLOCK	M. F	04	08
7.	0365	CORNER ALIGNMENT CLEAT	M. F	08	12
8.	2314	DRAIN HOLE COVER	M. F	02	03

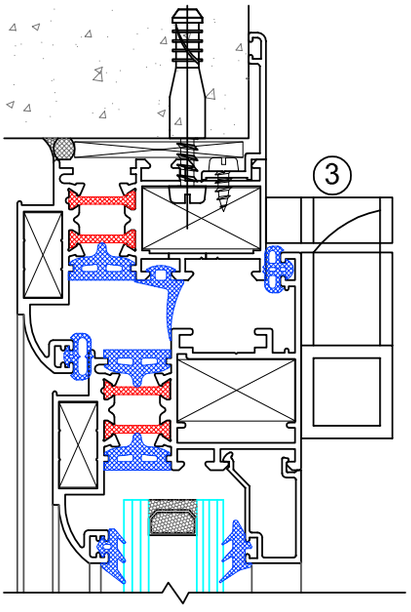
E.P.D.M. GASKET LIST

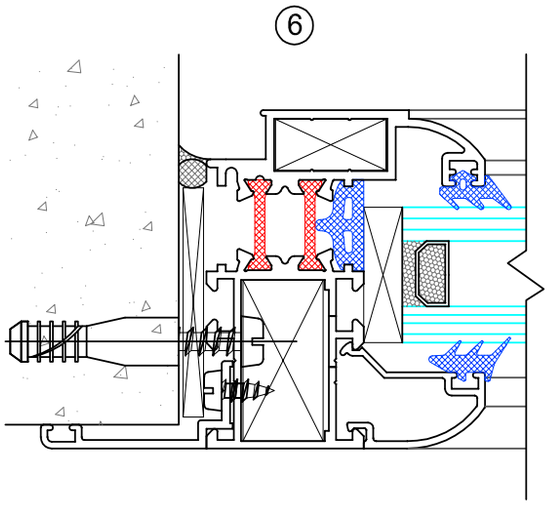
ITEM No.	GASKET CODE No.	DESCRIPTION	SINGLE LEAF	DOUBLE LEAF
1.	RUB 035	IMPACT GASKET INTERNAL	2W + 2H	2W + 4H
2.	RUB 025	CENTER GASKET	2W + 2H	2W + 4H
3.	RUB 055	OUTER GASKET	2W + 2H	2W + 4H
4.	RUB 065	INNER GASKET	2W + 2H	2W + 4H
5.	RUB 015	IMPACT GASKET EXTERNAL	2W + 2H	2W + 4H
6.	RUB 010	THEMAL BREAK FILLER GASKET	2W + 2H	2W + 4H

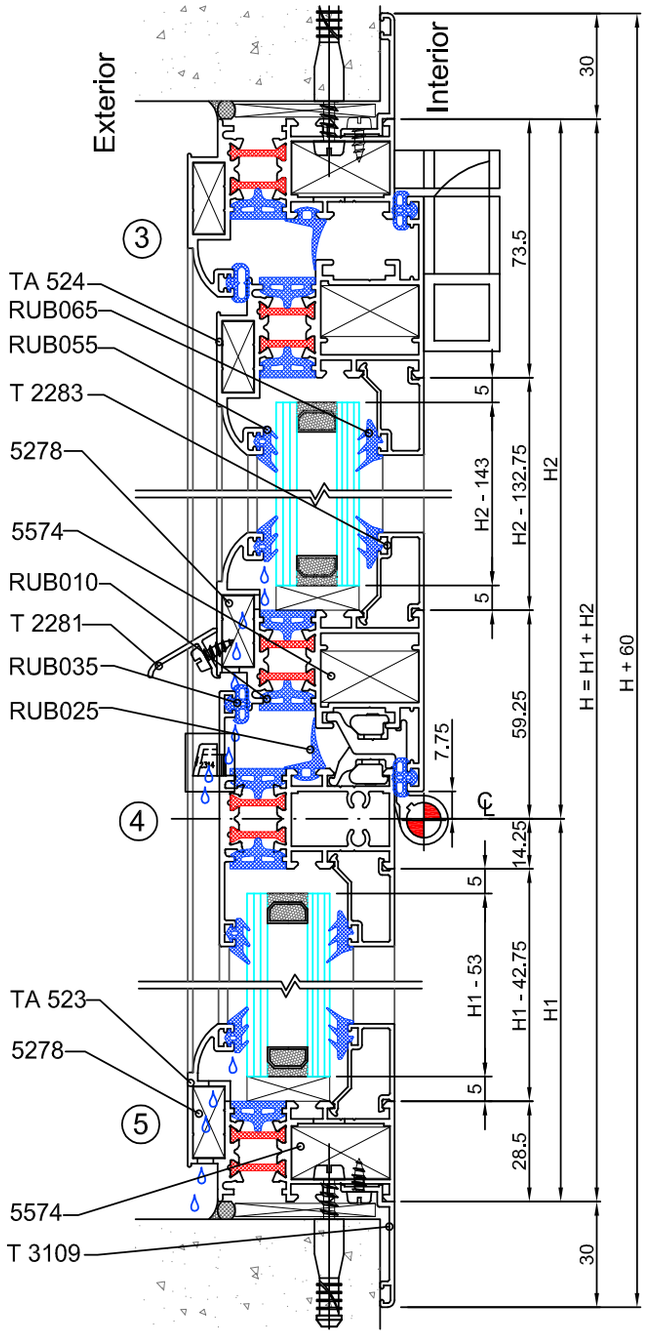
SIDE HUNG WINDOW WITH BOTTOM FIXLITE

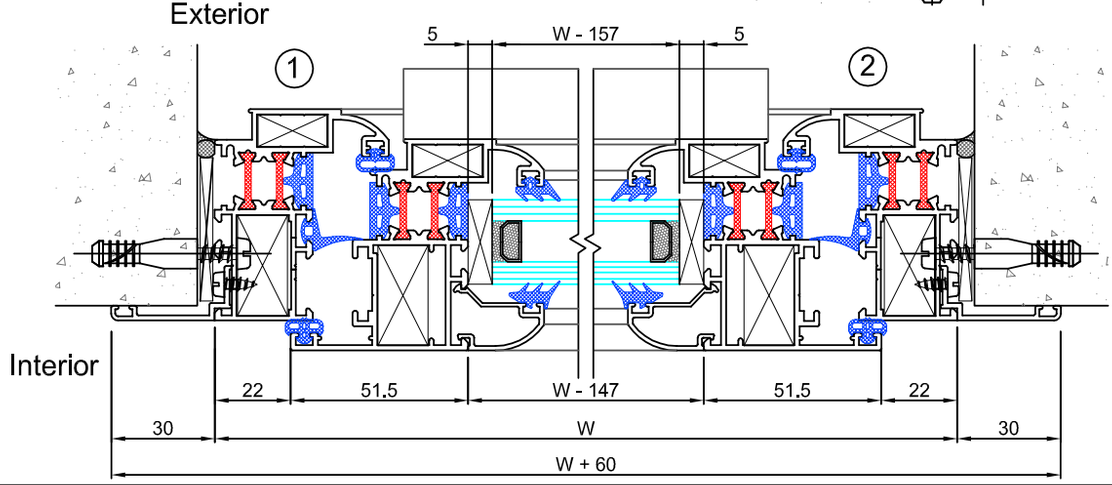
ECO - 500











THERMAL BREAK
SIDE HUNG WINDOW INWARD OPENABLE

ECO - 500

PROFILE CUTTING LIST

ITEM No.	DESCRIPTION & SECTION SHAPE	PROFILE No.	PROFILE CUTTING ANGLE	CUTTING SIZE	No. OF PIECES	REMARKS
1.	FRAME WIDTH	TA 523	45°	W	02	W
2.	FRAME HEIGHT	TA 523	45°	H	02	H
3.	SASH WIDTH	TA 524	45°	W - 44	02	W - 44
4.	SASH HEIGHT	TA 524	45°	H - 44	02	H1 - 30
5.	T SECTION	TA 516		W - 57	01	W - 57
6.	DROPER WIDTH	T 2281		W - 44	01	W - 44
7.	ARCHITRIVE WIDTH	T 3109	45°	W + 60	02	W + 60
8.	ARCHITRIVE HEIGHT	T 3109	45°	H + 60	02	H + 60
9.	GL CLIP WIDTH	T 2283		W - 147	02	W - 147 FOR SASH
				W - 57	02	W/2 - 57 FOR FIXLITE
10.	GL CLIP HEIGHT	T 2282		H -177	02	H - 177 FOR SASH
				H - 87	02	H - 87 FOR FIXLITE
11.	CORNER CLEAT FOR FRAME	5574		28.0	04	MILL FINISH
12.	CORNER CLEAT FOR FRAME	5278		8.3	04	MILL FINISH
					08	MILL FINISH
13.	CORNER CLEAT FOR SASH	5574		28.0	04	MILL FINISH
14.	CORNER CLEAT FOR SASH	5278		8.3	04	MILL FINISH

ACCESSORIES LIST

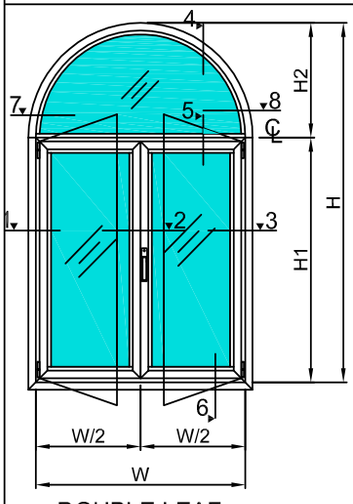
ITEM No.	ACCESSORY CODE No.	DESCRIPTION	FINISH	SINGLE LEAF
1.	00120N	HINGES FOR OVERLAP	P. C	02
2.	01701	FINGER CATCHER	P. C	01
3.	02040	STAY ARM	M. F	01 SET
4.	A300	PLASTIC 5mm GL BLOCK	M. F	08
5.	0365	CORNER ALIGNMENT CLEAT	M. F	08
6.	2314	DRAIN HOLE COVER	M. F	04

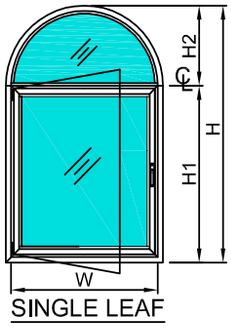
E.P.D.M. GASKET LIST

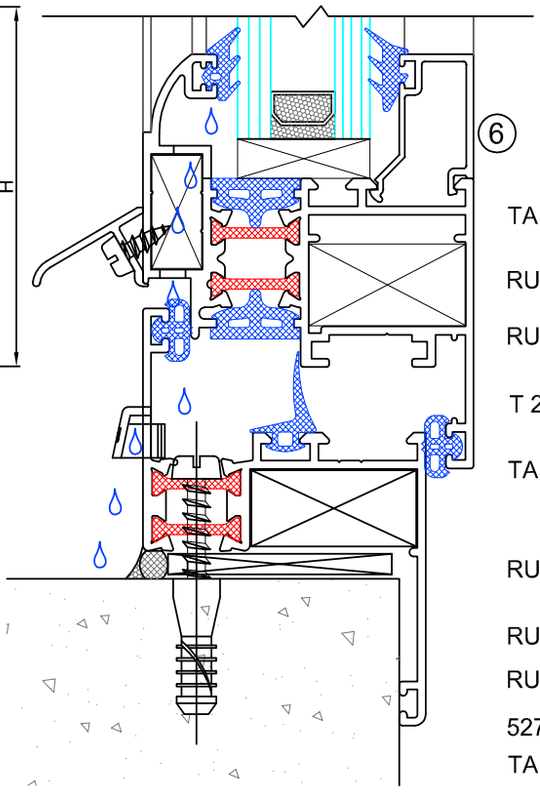
ITEM No.	GASKET CODE No.	DESCRIPTION	SINGLE LEAF
1.	RUB 035	IMPACT GASKET INTERNAL	1W + 1H
2.	RUB 025	CENTER GASKET	1W + 1H
3.	RUB 055	OUTER GASKET	1W + 2H
4.	RUB 065	INNER GASKET	2W + 2H
5.	RUB 015	IMPACT GASKET EXTERNAL	1W + 1H
6.	RUB 010	THEMAL BREAK FILLER GASKET	2W + 2H

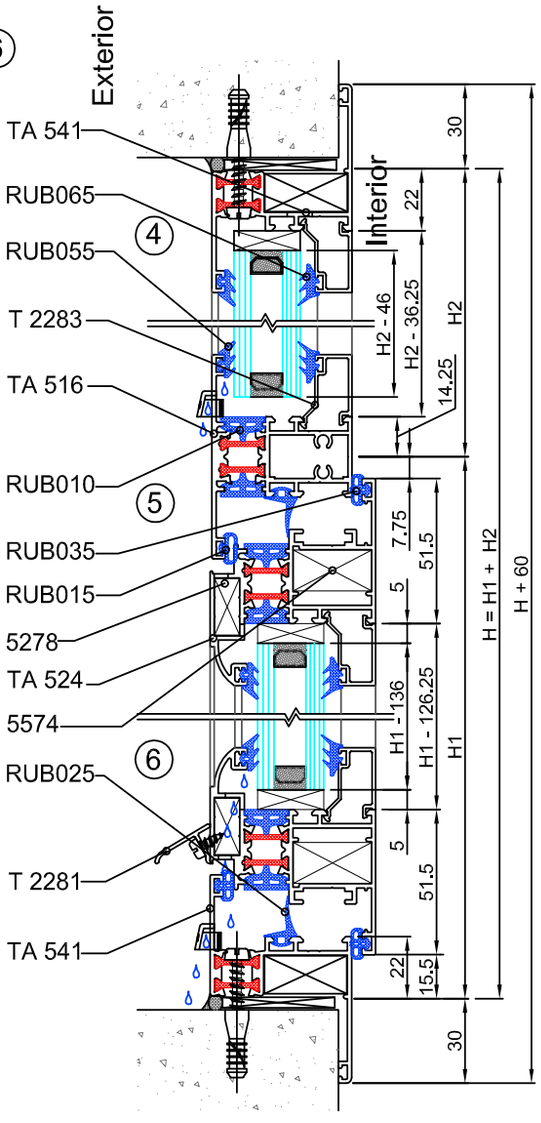
SIDE HUNG WINDOW WITH TOP ARCH

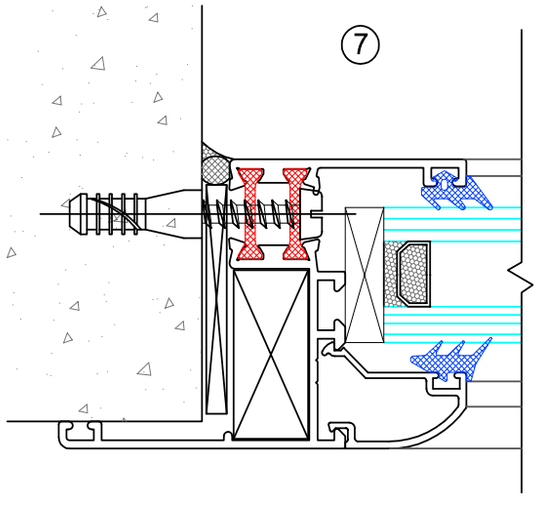
ECO - 500

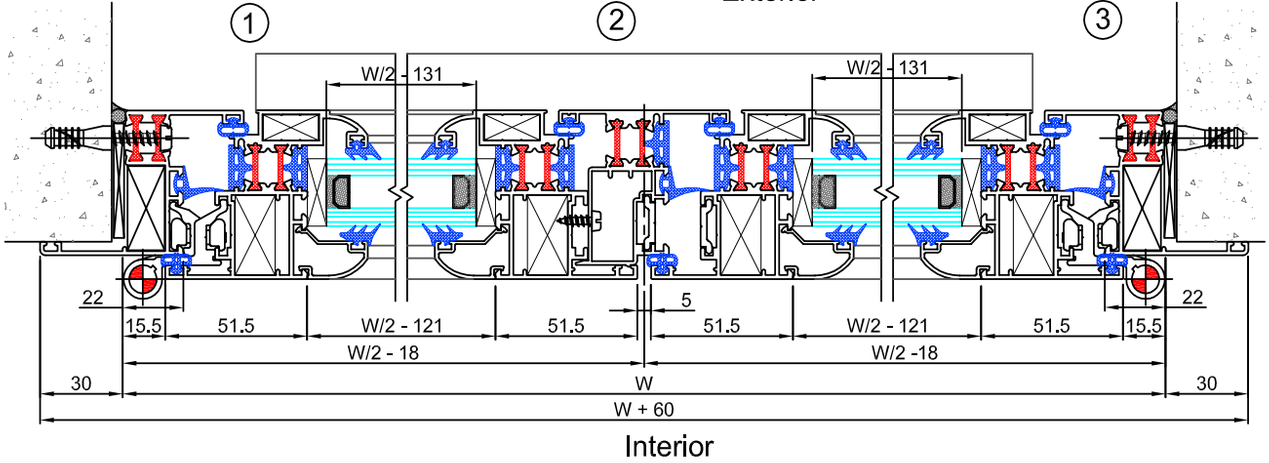








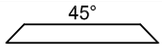
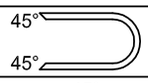
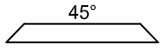
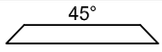
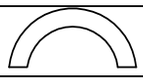




THERMAL BREAK
SIDE HUNG WINDOW INWARD OPENABLE

ECO - 500

PROFILE CUTTING LIST

ITEM No.	DESCRIPTION & SECTION SHAPE	PROFILE No.	PROFILE CUTTING ANGLE	CUTTING SIZE	No. OF PIECES	REMARKS
1.	FRAME WIDTH	TA 541		W	01	
2.	(T4) FRAME HEIGHT	TA 541		H	01	2H1 + (3.14XD/2)
3.	SASH WIDTH	TA 524		W - 44	02 04	W - 31 (SINGLE W) W/2 - 18 (DOUBLE W)
4.	SASH HEIGHT	TA 524		H1 - 23	02 04	(SINGLE W) (DOUBLE W)
5.	ADOPTER	TA 518		H1 - 23	01 01	(SINGLE W) (DOUBLE W)
6.	T SECTION	TA 516		W - 31	01	W - 31
7.	CONNECTING ROD	T 2310		1 - H1	01	1H
8.	DROPER WIDTH	T 2281		W	01 02	W - 31 (SINGLE W) W/2 - 18 (DOUBLE W)
9.	GL CLIP WIDTH	T 2283		W - 31	01	W - 31
10.	GL CLIP T4 RADIUS	T 2283		(3.14XD)/2	01	(3.14XD)/2
11.	GL CLIP WIDTH	T 2283		W	02 04	W - 134 (SINGLE W) W/2 - 121 (DOUBLE W)
12.	GL CLIP HEIGHT	T 2282		H -170	02 04	SINGLE W DOUBLE W
13.	CORNER CLEAT FOR FRAME	2261		28.0 27.0	02 02	MILL FINISH
14.	CORNER CLEAT FOR SASH	5574		28.0	04 08	MILL FINISH (SINGLE W) MILL FINISH (DOUBLE W)
15.	CORNER CLEAT FOR SASH	5278		8.3	04 08	MILL FINISH (SINGLE W) MILL FINISH (DOUBLE W)

ACCESSORIES LIST

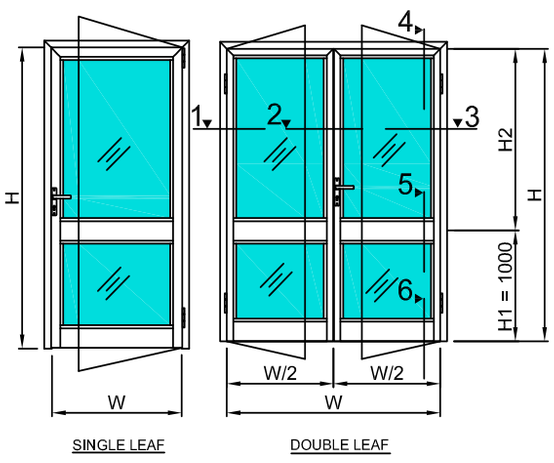
ITEM No.	ACCESSORY CODE No.	DESCRIPTION	FINISH	SINGLE LEAF	DOUBLE LEAF
1.	00120N	HINGES FOR OVERLAP	P. C	02	04
2.	01150	UNICA HANDLE	P. C	01	01
3.	04070	KIT FOR HANDLE (OPEN IN)	M. F	01	01
4.	0103	WING CLOSING PLUG	M. F	-	1 SET
5.	02111	FLUSH BOLT FOR COMBINED WING	M. F	-	1 SET
6.	A300	PLASTIC 5mm GL BLOCK	M. F	04	08
7.	0365	CORNER ALIGNMENT CLEAT	M. F	08	12
8.	2314	DRAIN HOLE COVER	M. F	02	03

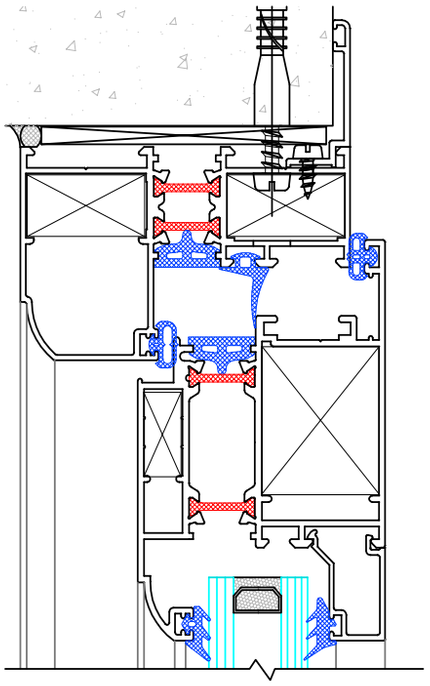
E.P.D.M. GASKET LIST

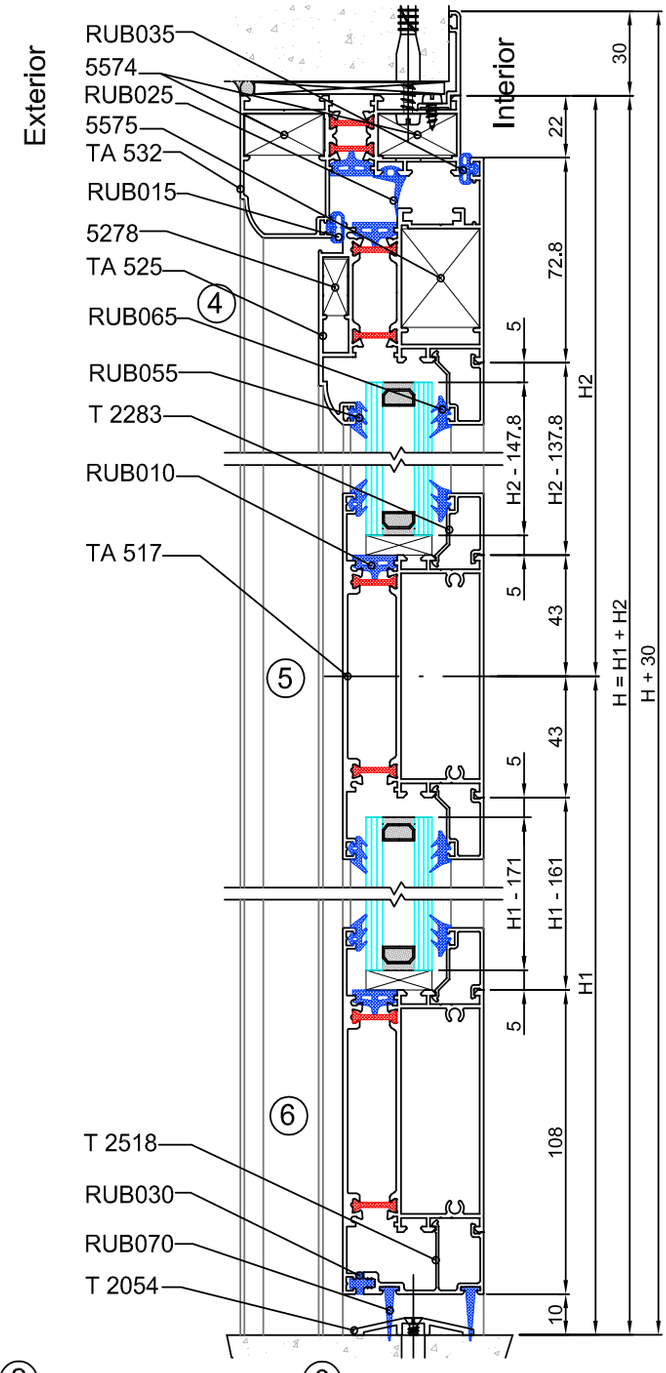
ITEM No.	GASKET CODE No.	DESCRIPTION	SINGLE LEAF	DOUBLE LEAF
1.	RUB 035	IMPACT GASKET INTERNAL	2W + 2H	2W + 4H
2.	RUB 025	CENTER GASKET	2W + 2H	2W + 4H
3.	RUB 055	OUTER GASKET	2W + 2H	2W + 4H
4.	RUB 065	INNER GASKET	2W + 2H	2W + 4H
5.	RUB 015	IMPACT GASKET EXTERNAL	2W + 2H	2W + 4H
6.	RUB 010	THEMAL BREAK FILLER GASKET	2W + 2H	2W + 4H

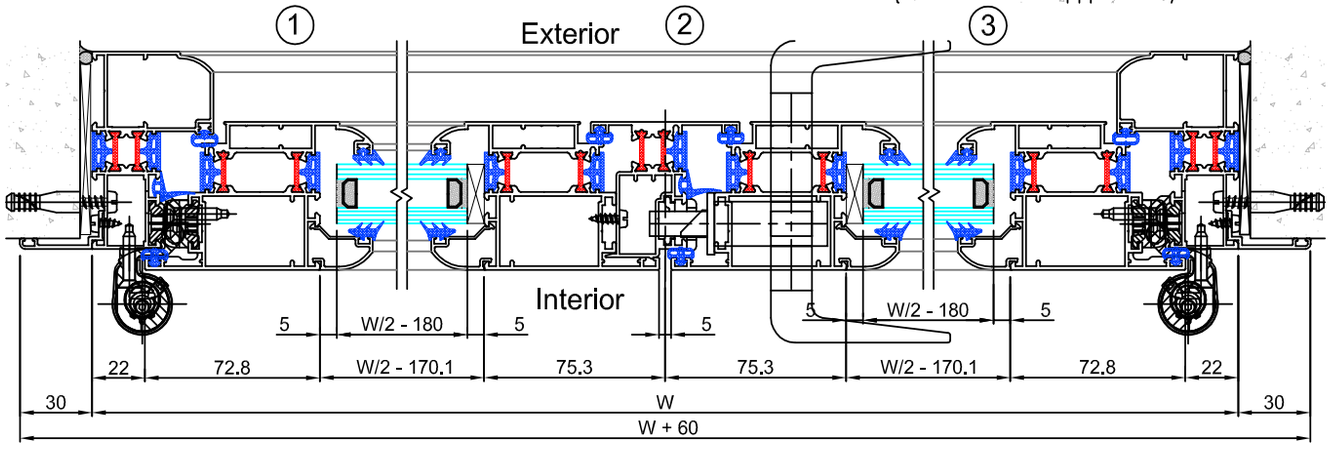
INWARD OPENING HINGED DOOR

ECO - 500









THERMAL BREAK
INWARD OPENING HINGED DOOR

ECO - 500

PROFILE CUTTING LIST

ITEM No.	DESCRIPTION & SECTION SHAPE	PROFILE No.	PROFILE CUTTING ANGLE	CUTTING SIZE	No. OF PIECES	REMARKS
1.	FRAME WIDTH	TA 532	45°	W	01	FOR SINGLE & DOUBLE D
2.	FRAME HEIGHT	TA 532	45° 1 AS SHOWN 1 AS REVERSE	H	02	FOR SINGLE & DOUBLE D
3.	SASH WIDTH	TA 525	45°		01	W - 44 (SINGLE D)
					02	W/2 - 24.5(DOUBLE D)
4.	SASH HEIGHT	TA 525	45° 2 AS SHOWN 2 AS REVERSE		02	H - 32 (SINGLE D)
					04	H - 32 (DOUBLE D)
5.	ADOPTER	TA 518			00	(SINGLE D)
					01	H - 32 (DOUBLE D)
6.	MIDRAIL WIDTH	TA 517			01	W - 189.6 (SINGLE D)
					02	W/2 - 170.1 (DOUBLE D)
7.	BOTTOM RAIL WIDTH	TA 517			01	W - 189.6 (SINGLE D)
					02	W/2 - 170.1 (DOUBLE D)
8.	BRUSH HOLDER	T 2518			01	W - 80 (SINGLE D)
					02	W/2 - 54.5 (DOUBLE D)
9.	THRESHOULD	T 2054		W - 57	01	W - 57
10.	GL BEAD WIDTH FOR SASH	T 2283			04	W - 189.6 (SINGLE D)
					08	W/2 - 170.1 (DOUBLE D)
11.	GL BEAD HEIGHT FOR SASH	T 2282			02	H1 - 195 (SINGLE D)
					04	H1 - 195 (DOUBLE D)
12.	GL BEAD HEIGHT	T 2282			02	H2 - 181.8 (SINGLE D)
					04	H2 - 181.8 (DOUBLE D)
13.	CORNER CLEAT FOR FRAME	5574		28.5	04	MILL FINISH (SINGLE D)
					04	MILL FINISH (DOUBLE D)
14.	CORNER CLEAT FOR SASH	5575		28.0	02	MILL FINISH (SINGLE D)
					04	MILL FINISH (DOUBLE D)
15.	CORNER CLEAT FOR SASH	5278		8.5	02	MILL FINISH (SINGLE D)
					04	MILL FINISH (DOUBLE D)
16.	ARCHITRIVE	T 3109	45°	W + 60	01	(SINGLE D)
					01	(DOUBLE D)
17.	ARCHITRIVE	T 3109	45° 1 AS SHOWN 1 AS REVERSE	H + 30	02	(SINGLE D)
					02	(DOUBLE D)

ACCESSORIES LIST

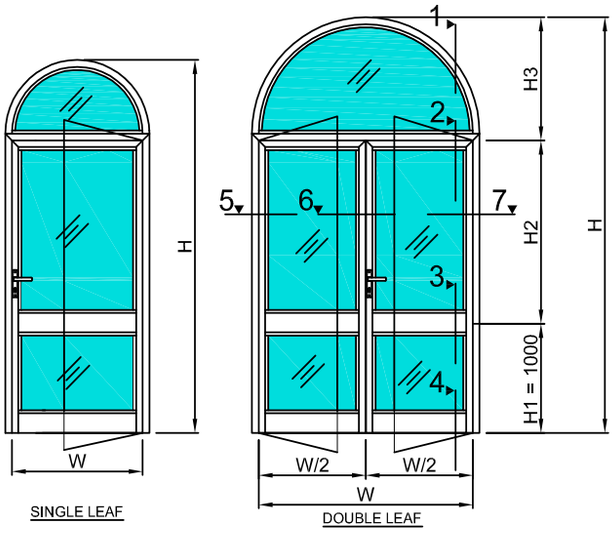
ITEM No.	ACCESSORY CODE No.	DESCRIPTION	FINISH	SINGLE LEAF	DOUBLE LEAF
1.	00598	DOOR HINGES	P. C	02	04
2.	2472	DOOR LIVER HANDLE	P. C	01	01
3.	02111	FLUSH BOLT	M. F	-	2 SET
4.	00365	ALIGNMENT CORNER		01	04
5.	01314	STRICKER LATCH		-	01
6.	2144	BRASS BUSH		-	01
7.	91135XC	DOMUS LOCK SET		01	01
8.	16075K	DOMUS CYLINDER 74mm		01	01
9.	90185X	DOMUS STRIKING PLATE		01	01

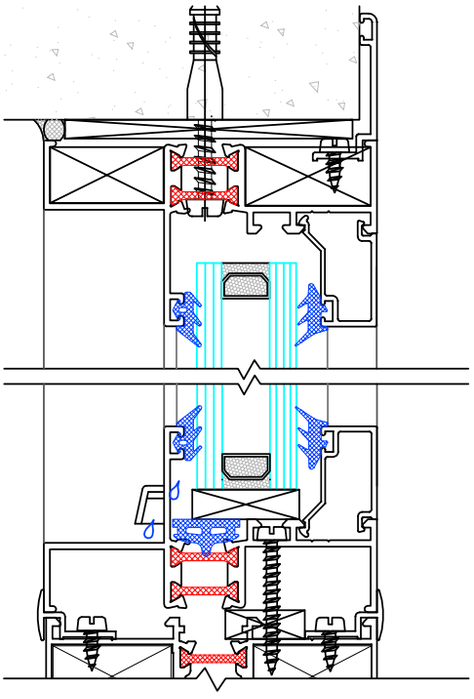
E.P.D.M. GASKET LIST

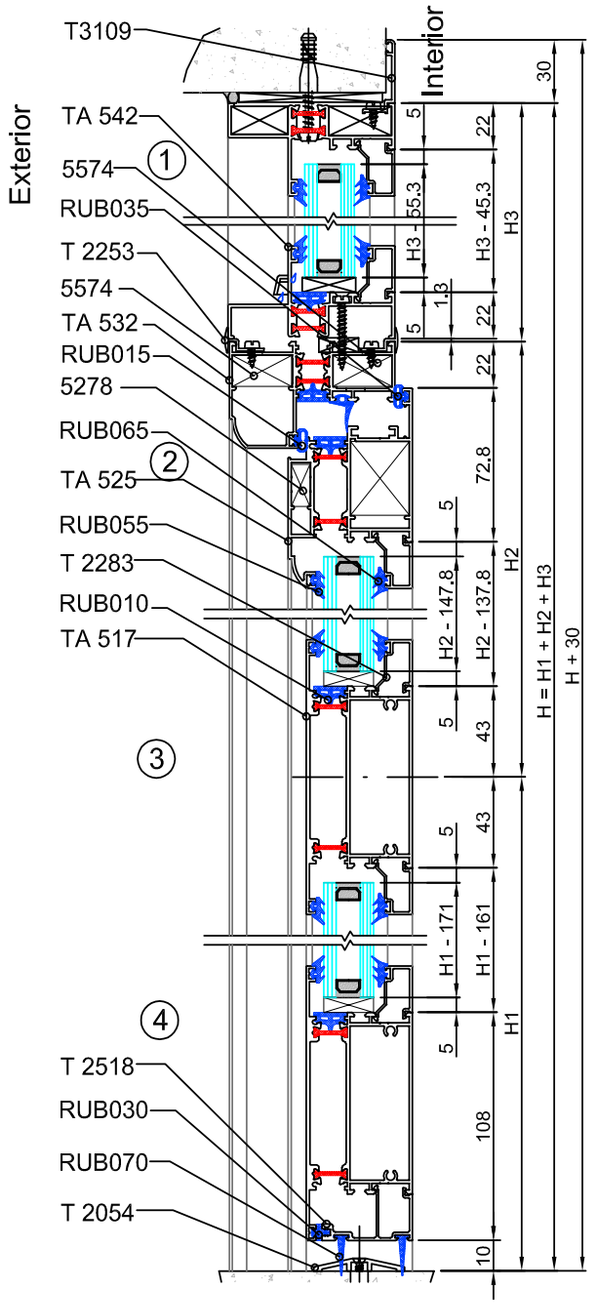
ITEM No.	GASKET CODE No.	DESCRIPTION	SINGLE LEAF	DOUBLE LEAF
1.	RUB 035	IMPACT GASKET INTERNAL	1W + 2H	1W + 4H
2.	RUB 035	IMPACT GASKET EXTERNAL	1W + 2H	1W + 4H
3.	RUB 010	THERMAL BARRIER GASKET	2W + 4H	2W + 8H
4.	RUB 025	CENTER GASKET	1W + 2H	1W + 3H
5.	RUB 055	INTERNAL GLAZING GASKET	4W + 2H	4W + 8H
6.	RUB 065	EXTERNAL GLAZING GASKET	4W + 2H	4W + 8H
7.	RUB 070	THRESHOULD GASKET	2W	2W

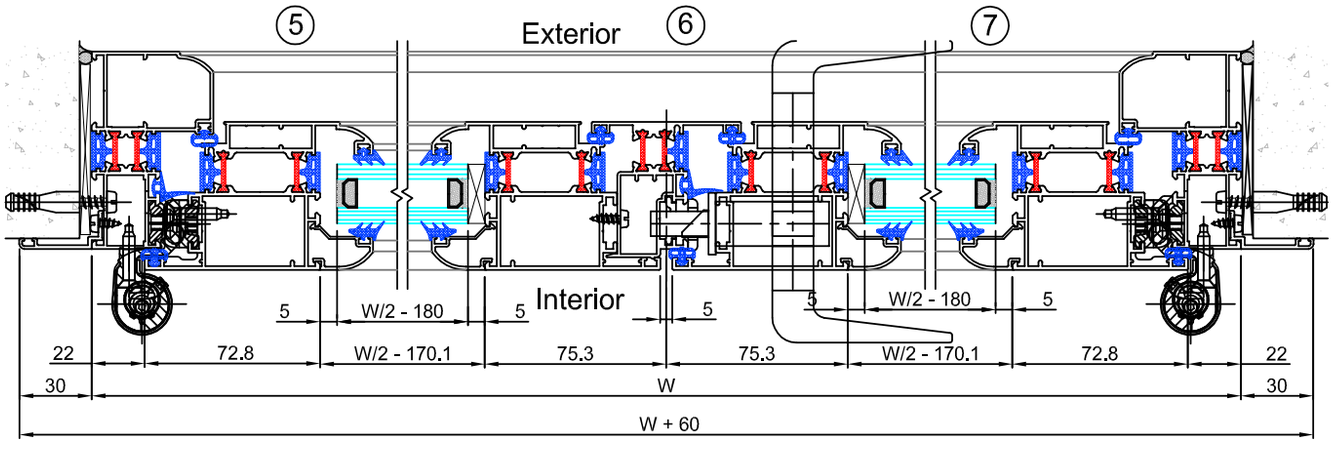
INWARD OPENING HINGED DOOR WITH TOP FIXLITE

ECO - 500









THERMAL BREAK
INWARD OPENING HINGED DOOR

ECO - 500

PROFILE CUTTING LIST

ITEM No.	DESCRIPTION & SECTION SHAPE	PROFILE No.	PROFILE CUTTING ANGLE	CUTTING SIZE	No. OF PIECES	REMARKS
1.	FRAME WIDTH	TA 532	45°	W	01	FOR SINGLE & DOUBLE D
2.	FRAME HEIGHT	TA 532	45° (1 AS SHOWN, 1 AS REVERSE)	H	02	FOR SINGLE & DOUBLE D
3.	SASH WIDTH	TA 525	45°		01	W - 44 (SINGLE D)
					02	W/2 - 24.5(DOUBLE D)
4.	SASH HEIGHT	TA 525	45° (2 AS SHOWN, 2 AS REVERSE)		02	H - 32 (SINGLE D)
					04	H - 32 (DOUBLE D)
5.	ADOPTER	TA 518			00	(SINGLE D)
					01	H - 32 (DOUBLE D)
6.	MIDRAIL WIDTH	TA 517			01	W - 189.6 (SINGLE D)
					02	W/2 - 170.1 (DOUBLE D)
7.	BOTTOM RAIL WIDTH	TA 517			01	W - 189.6 (SINGLE D)
					02	W/2 - 170.1 (DOUBLE D)
8.	BRUSH HOLDER	T 2518			01	W - 80 (SINGLE D)
					02	W/2 - 54.5 (DOUBLE D)
9.	THRESHOULD	T 2054		W - 57	01	W - 57
10.	GL BEAD WIDTH FOR SASH	T 2283			04	W - 189.6 (SINGLE D)
					08	W/2 - 170.1 (DOUBLE D)
11.	GL BEAD HEIGHT FOR SASH	T 2282			02	H1 - 195 (SINGLE D)
					04	H1 - 195 (DOUBLE D)
12.	GL BEAD HEIGHT	T 2282			02	H2 - 181.8 (SINGLE D)
					04	H2 - 181.8 (DOUBLE D)
13.	CORNER CLEAT FOR FRAME	5574		28.5	04	MILL FINISH (SINGLE D)
					04	MILL FINISH (DOUBLE D)
14.	CORNER CLEAT FOR SASH	5575		28.0	02	MILL FINISH (SINGLE D)
					04	MILL FINISH (DOUBLE D)
15.	CORNER CLEAT FOR SASH	5278		8.5	02	MILL FINISH (SINGLE D)
					04	MILL FINISH (DOUBLE D)
16.	ARCHITRIVE	T 3109	45°	W + 60	01	(SINGLE D)
					01	(DOUBLE D)
17.	ARCHITRIVE	T 3109	45° (1 AS SHOWN, 1 AS REVERSE)	H + 30	02	(SINGLE D)
					02	(DOUBLE D)
18.	FRAME	TA 543	45°	W	01	
19.	FRAME (T4) ARCH	TA 543		(3.14XD)/2	01	(3.14XD)/2
20.	GL BEAD WIDTH FOR SASH	T 2283	45°	W - 57	01	W - 57
21.	GL BEAD WIDTH FOR SASH	T 2283		(3.14XD)/2	01	(3.14XD)/2
22.	ARCHITRIVE	T 3109		(3.14XD)/2	01	(3.14XD)/2
23.	CONNECTOR	T 2253		W	01	

ACCESSORIES LIST

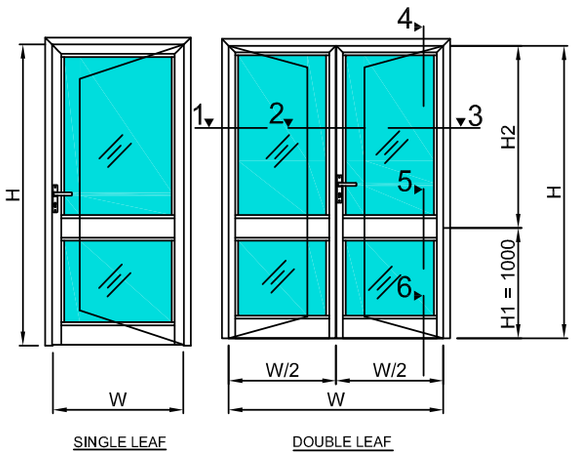
ITEM No.	ACCESSORY CODE No.	DESCRIPTION	FINISH	SINGLE LEAF	DOUBLE LEAF
1.	00598	DOOR HINGES	P. C	02	04
2.	2472	DOOR LIVER HANDLE	P. C	01	01
3.	02111	FLUSH BOLT	M. F	-	2 SET
4.	00365	ALIGNMENT CORNER		01	04
5.	01314	STRICKER LATCH		-	01
6.	2144	BRASS BUSH		-	01
7.	91135XC	DOMUS LOCK SET		01	01
8.	16075K	DOMUS CYLINDER 74mm		01	01
9.	90185X	DOMUS STRIKING PLATE		01	01

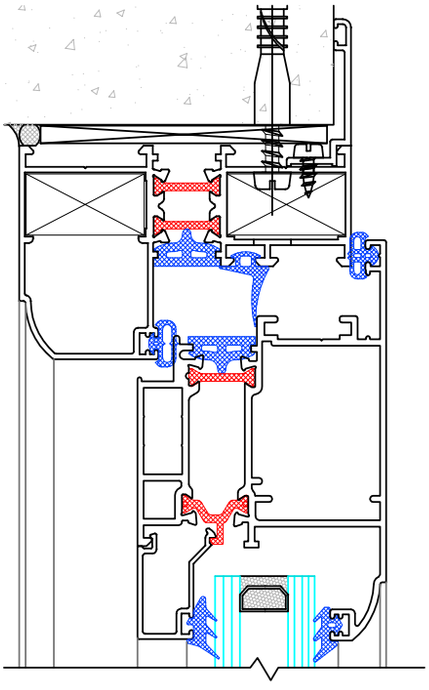
E.P.D.M. GASKET LIST

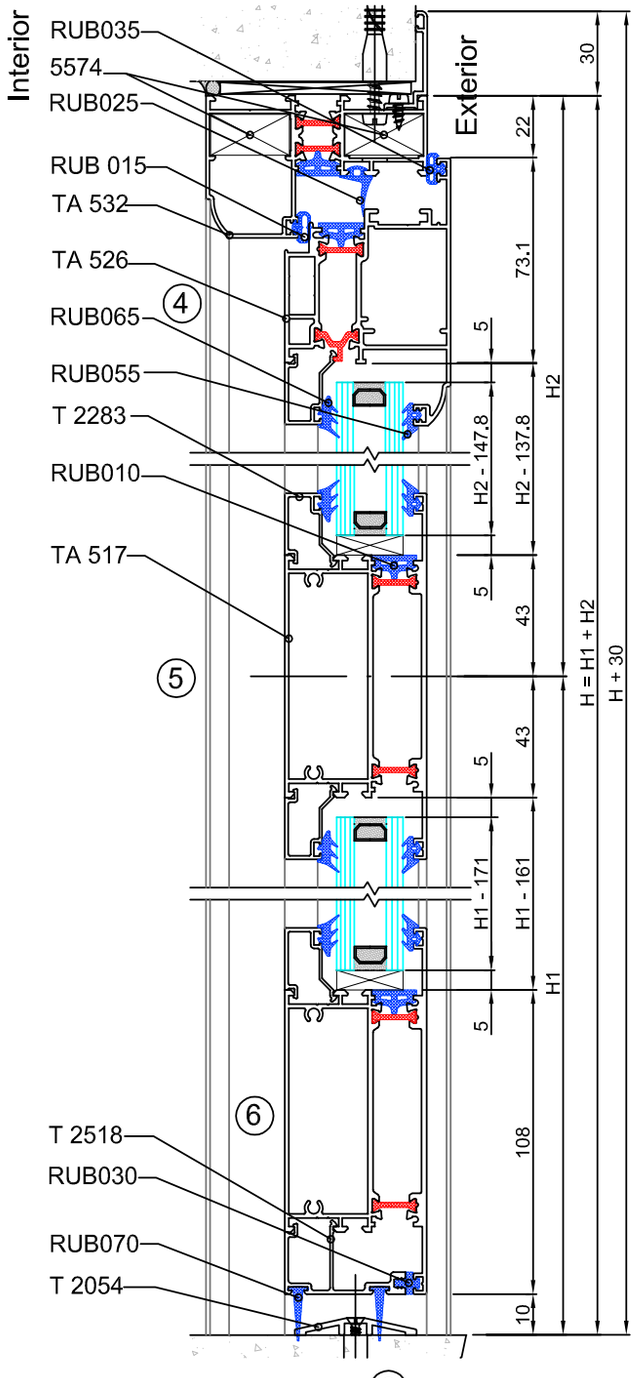
ITEM No.	GASKET CODE No.	DESCRIPTION	SINGLE LEAF	DOUBLE LEAF
1.	RUB 035	IMPACT GASKET INTERNAL	1W + 2H	1W + 4H
2.	RUB 035	IMPACT GASKET EXTERNAL	1W + 2H	1W + 4H
3.	RUB 010	THERMAL BARRIER GASKET	2W + 4H	2W + 8H
4.	RUB 025	CENTER GASKET	1W + 2H	1W + 3H
5.	RUB 055	INTERNAL GLAZING GASKET	6W + 2H	4W + 8H
6.	RUB 065	EXTERNAL GLAZING GASKET	6W + 2H	4W + 8H
7.	RUB 070	THRESHOULD GASKET	2W	2W

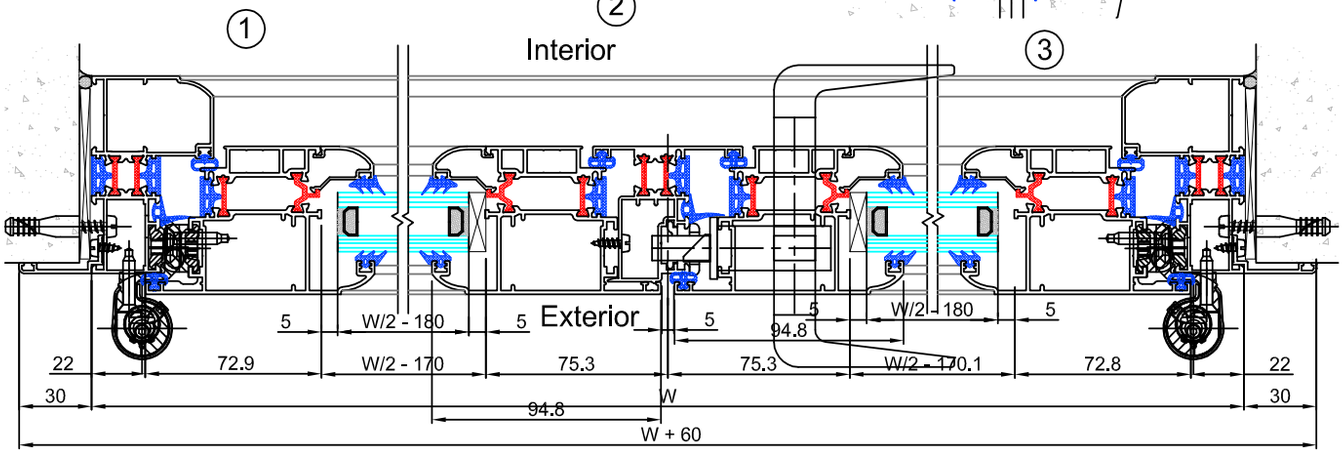
OUTWARD OPENING HINGED DOOR

ECO - 500





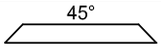
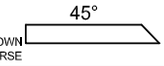
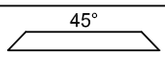
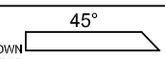
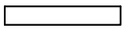
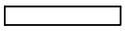
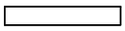
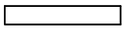
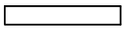
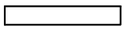
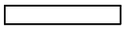
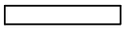
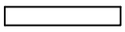
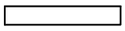
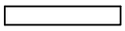
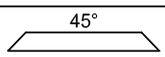
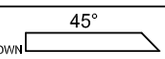




THERMAL BREAK
OUTWARD OPENING HINGED DOOR

ECO - 500

PROFILE CUTTING LIST

ITEM No.	DESCRIPTION & SECTION SHAPE	PROFILE No.	PROFILE CUTTING ANGLE	CUTTING SIZE	No. OF PIECES	REMARKS
1.	 FRAME WIDTH	TA 532	 45°	W	01	FOR SINGLE & DOUBLE D
2.	 FRAME HEIGHT	TA 532	 45° 1 AS SHOWN 1 AS REVERSE	H	02	FOR SINGLE & DOUBLE D
3.	 SASH WIDTH	TA 526	 45°		01	W - 44 (SINGLE D)
					02	W/2 - 24.5(DOUBLE D)
4.	 SASH HEIGHT	TA 526	 45° 2 AS SHOWN 2 AS REVERSE		02	H - 32 (SINGLE D)
					04	H - 32 (DOUBLE D)
5.	 ADOPTER	TA 518			00	(SINGLE D)
					01	H - 32 (DOUBLE D)
6.	 MIDRAIL WIDTH	TA 517			01	W - 189.6 (SINGLE D)
					02	W/2 - 170.1 (DOUBLE D)
7.	 BOTTOM RAIL WIDTH	TA 517			01	W - 189.6 (SINGLE D)
					02	W/2 - 170.1 (DOUBLE D)
8.	 BRUSH HOLDER	T 2518			01	W - 80 (SINGLE D)
					02	W/2 - 54.5 (DOUBLE D)
9.	 THRESHOULD	T 2054		W - 57	01	W - 57
10.	 GL BEAD WIDTH FOR SASH	T 2283			04	W - 189.6 (SINGLE D)
					08	W/2 - 170.1 (DOUBLE D)
11.	 GL BEAD HEIGHT FOR SASH	T 2282			02	H1 - 195 (SINGLE D)
					04	H1 - 195 (DOUBLE D)
12.	 GL BEAD HEIGHT	T 2282			02	H2 - 181.8 (SINGLE D)
					04	H2 - 181.8 (DOUBLE D)
13.	 CORNER CLEAT FOR FRAME	5574		28.5	04	MILL FINISH (SINGLE D)
					04	MILL FINISH (DOUBLE D)
14.	 CORNER CLEAT FOR SASH	5575		28.0	02	MILL FINISH (SINGLE D)
					04	MILL FINISH (DOUBLE D)
15.	 CORNER CLEAT FOR SASH	5278		8.5	02	MILL FINISH (SINGLE D)
					04	MILL FINISH (DOUBLE D)
16.	 ARCHITRIVE	T 3109	 45°	W + 60	01	(SINGLE D)
					01	(DOUBLE D)
17.	 ARCHITRIVE	T 3109	 45° 1 AS SHOWN 1 AS REVERSE	H + 30	02	(SINGLE D)
					02	(DOUBLE D)

ACCESSORIES LIST

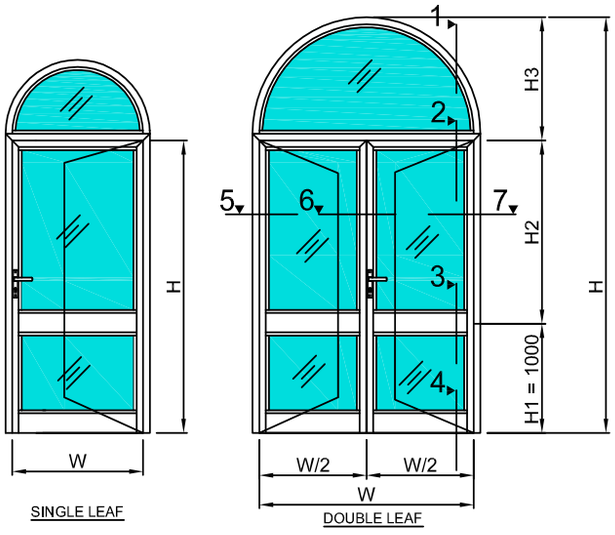
ITEM No.	ACCESSORY CODE No.	DESCRIPTION	FINISH	SINGLE LEAF	DOUBLE LEAF
1.	00598	DOOR HINGES	P. C	02	04
2.	2472	DOOR LIVER HANDLE	P. C	01	01
3.	02111	FLUSH BOLT	M. F	-	2 SET
4.	00365	ALIGNMENT CORNER		01	04
5.	01314	STRICKER LATCH		-	01
6.	2144	BRASS BUSH		-	01
7.	91135XC	DOMUS LOCK SET		01	01
8.	16075K	DOMUS CYLINDER 74mm		01	01
9.	90185X	DOMUS STRIKING PLATE		01	01

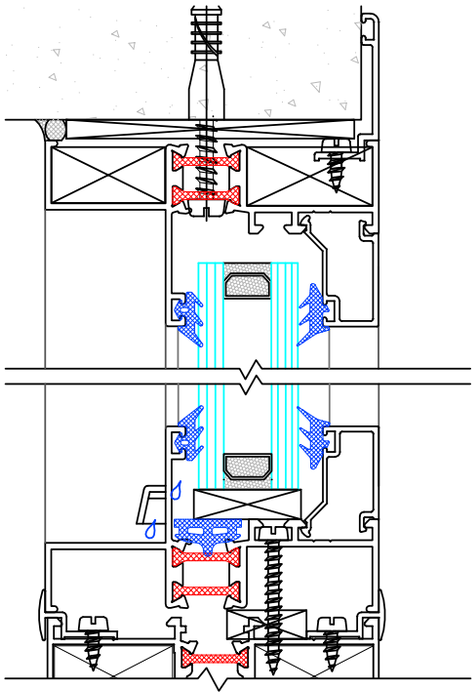
E.P.D.M. GASKET LIST

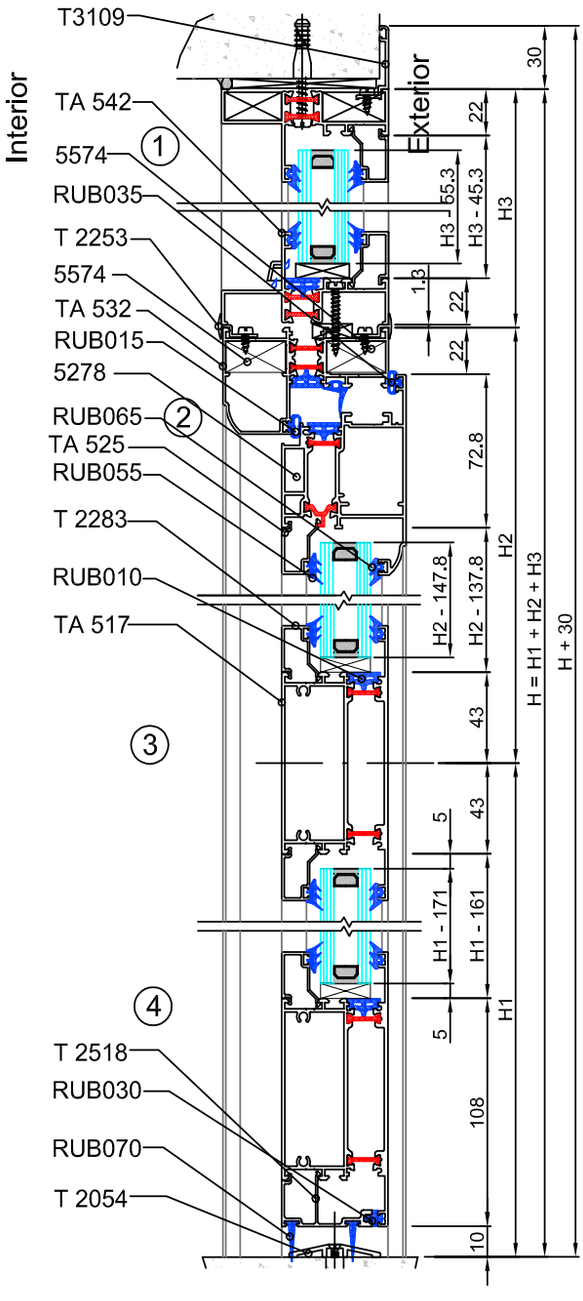
ITEM No.	GASKET CODE No.	DESCRIPTION	SINGLE LEAF	DOUBLE LEAF
1.	RUB 035	IMPACT GASKET INTERNAL	1W + 2H	1W + 4H
2.	RUB 035	IMPACT GASKET EXTERNAL	1W + 2H	1W + 4H
3.	RUB 010	THERMAL BARRIER GASKET	2W + 4H	2W + 8H
4.	RUB 025	CENTER GASKET	1W + 2H	1W + 3H
5.	RUB 055	INTERNAL GLAZING GASKET	4W + 2H	4W + 8H
6.	RUB 065	EXTERNAL GLAZING GASKET	4W + 2H	4W + 8H
7.	RUB 070	THRESHOULD GASKET	2W	2W

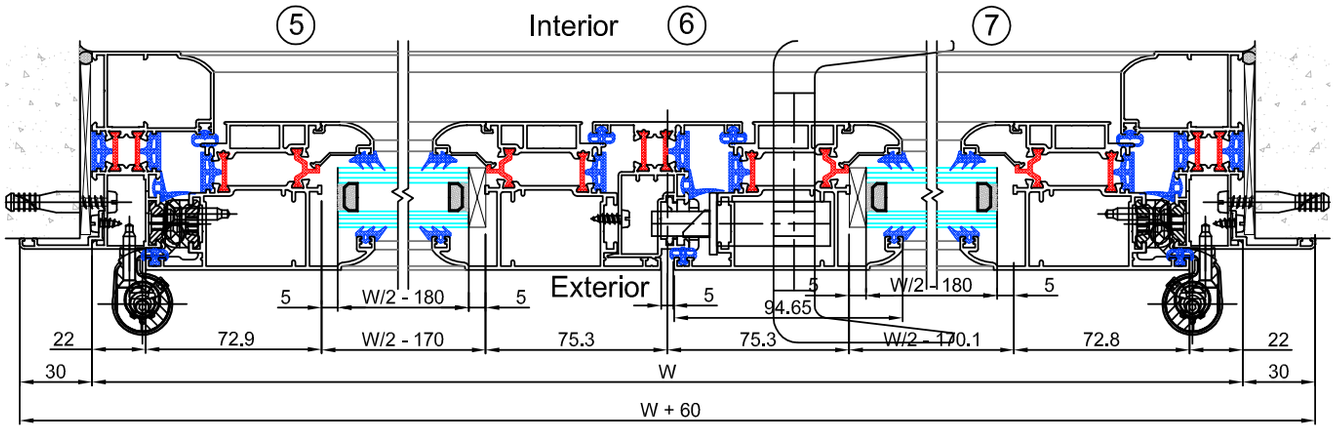
OUTWARD OPENING HINGED DOOR WITH TOP FIXLITE

ECO - 500





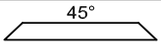
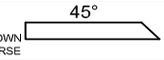
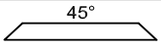
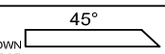
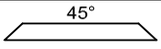
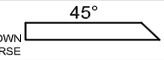
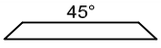
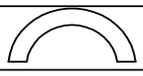
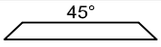




THERMAL BREAK
OUTWARD OPENING HINGED DOOR

ECO - 500

PROFILE CUTTING LIST

ITEM No.	DESCRIPTION & SECTION SHAPE	PROFILE No.	PROFILE CUTTING ANGLE	CUTTING SIZE	No. OF PIECES	REMARKS
1.	 FRAME WIDTH	TA 532	 45°	W	01	FOR SINGLE & DOUBLE D
2.	 FRAME HEIGHT	TA 532	 45° 1 AS SHOWN 1 AS REVERSE	H	02	FOR SINGLE & DOUBLE D
3.	 SASH WIDTH	TA 526	 45°		01	W - 44 (SINGLE D)
					02	W/2 - 24.5(DOUBLE D)
4.	 SASH HEIGHT	TA 526	 45° 2 AS SHOWN 2 AS REVERSE		02	H - 32 (SINGLE D)
					04	H - 32 (DOUBLE D)
5.	 ADOPTER	TA 518			00	(SINGLE D)
					01	H - 32 (DOUBLE D)
6.	 MIDRAIL WIDTH	TA 517			01	W - 189.6 (SINGLE D)
					02	W/2 - 170.1 (DOUBLE D)
7.	 BOTTOM RAIL WIDTH	TA 517			01	W - 189.6 (SINGLE D)
					02	W/2 - 170.1 (DOUBLE D)
8.	 BRUSH HOLDER	T 2518			01	W - 80 (SINGLE D)
					02	W/2 - 54.5 (DOUBLE D)
9.	 THRESHOULD	T 2054		W - 57	01	W - 57
10.	 GL BEAD WIDTH FOR SASH	T 2283			04	W - 189.6 (SINGLE D)
					08	W/2 - 170.1 (DOUBLE D)
11.	 GL BEAD HEIGHT FOR SASH	T 2282			02	H1 - 195 (SINGLE D)
					04	H1 - 195 (DOUBLE D)
12.	 GL BEAD HEIGHT	T 2282			02	H2 - 181.8 (SINGLE D)
					04	H2 - 181.8 (DOUBLE D)
13.	 CORNER CLEAT FOR FRAME	5574		28.5	04	MILL FINISH (SINGLE D)
					04	MILL FINISH (DOUBLE D)
14.	 CORNER CLEAT FOR SASH	5575		28.0	02	MILL FINISH (SINGLE D)
					04	MILL FINISH (DOUBLE D)
15.	 CORNER CLEAT FOR SASH	5278		8.5	02	MILL FINISH (SINGLE D)
					04	MILL FINISH (DOUBLE D)
16.	 ARCHITRIVE	T 3109	 45°	W + 60	01	(SINGLE D)
					01	(DOUBLE D)
17.	 ARCHITRIVE	T 3109	 45° 1 AS SHOWN 1 AS REVERSE	H + 30	02	(SINGLE D)
					02	(DOUBLE D)
18.	 FRAME	TA 543	 45°	W	01	
19.	 FRAME (T4) ARCH	TA 543		(3.14XD)/2	01	(3.14XD)/2
20.	 GL BEAD WIDTH FOR SASH	T 2283	 45°	W - 57	01	W - 57
21.	GL BEAD WIDTH FOR SASH	T 2283		(3.14XD)/2	01	(3.14XD)/2
22.	ARCHITRIVE	T 3109		(3.14XD)/2	01	(3.14XD)/2
23.	CONNECTOR	T 2253		W	02	

ACCESSORIES LIST

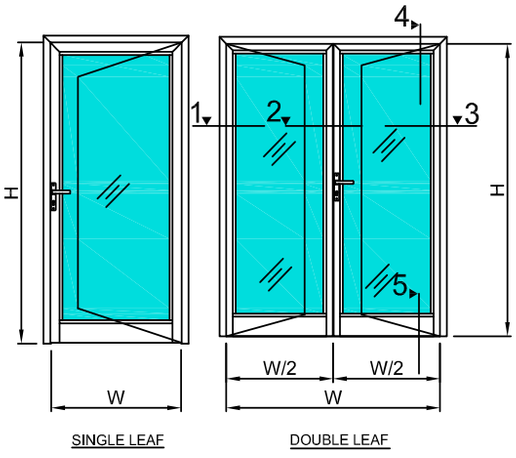
ITEM No.	ACCESSORY CODE No.	DESCRIPTION	FINISH	SINGLE LEAF	DOUBLE LEAF
1.	00598	DOOR HINGES	P. C	02	04
2.	2472	DOOR LIVER HANDLE	P. C	01	01
3.	02111	FLUSH BOLT	M. F	-	2 SET
4.	00365	ALIGNMENT CORNER		01	04
5.	01314	STRICKER LATCH		-	01
6.	2144	BRASS BUSH		-	01
7.	91135XC	DOMUS LOCK SET		01	01
8.	16075K	DOMUS CYLINDER 74mm		01	01
9.	90185X	DOMUS STRIKING PLATE		01	01

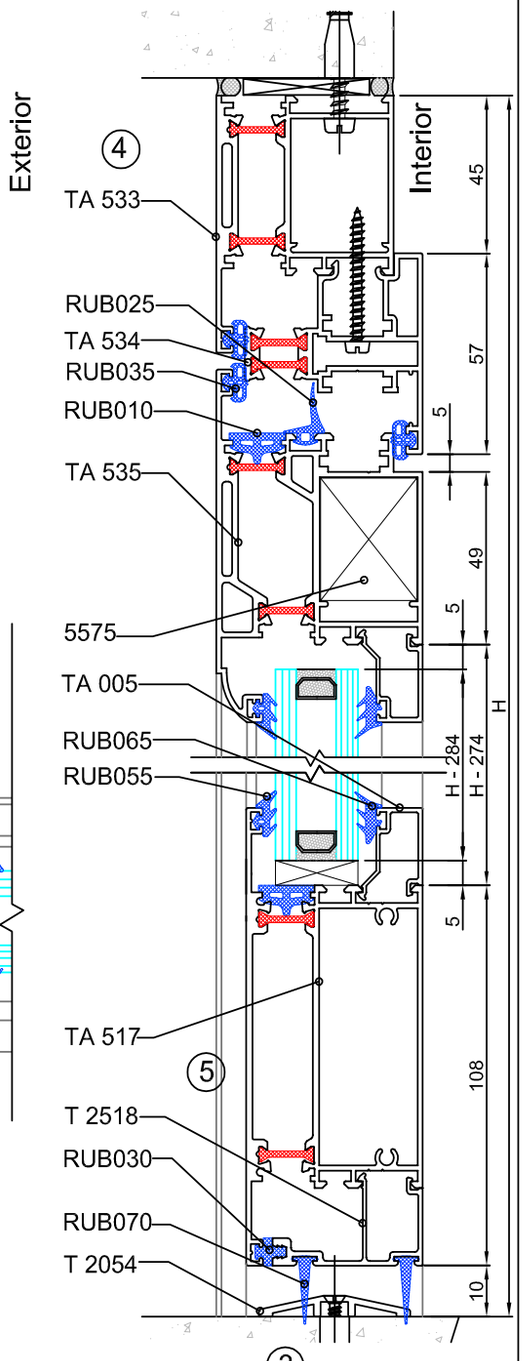
E.P.D.M. GASKET LIST

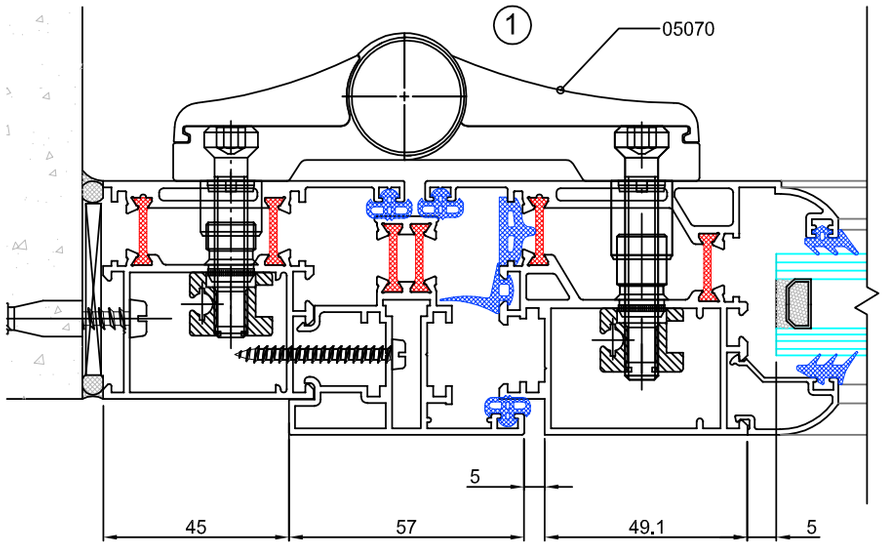
ITEM No.	GASKET CODE No.	DESCRIPTION	SINGLE LEAF	DOUBLE LEAF
1.	RUB 035	IMPACT GASKET INTERNAL	1W + 2H	1W + 4H
2.	RUB 035	IMPACT GASKET EXTERNAL	1W + 2H	1W + 4H
3.	RUB 010	THERMAL BARRIER GASKET	2W + 4H	2W + 8H
4.	RUB 025	CENTER GASKET	1W + 2H	1W + 3H
5.	RUB 055	INTERNAL GLAZING GASKET	6W + 2H	4W + 8H
6.	RUB 065	EXTERNAL GLAZING GASKET	6W + 2H	4W + 8H
7.	RUB 070	THRESHOULD GASKET	2W	2W

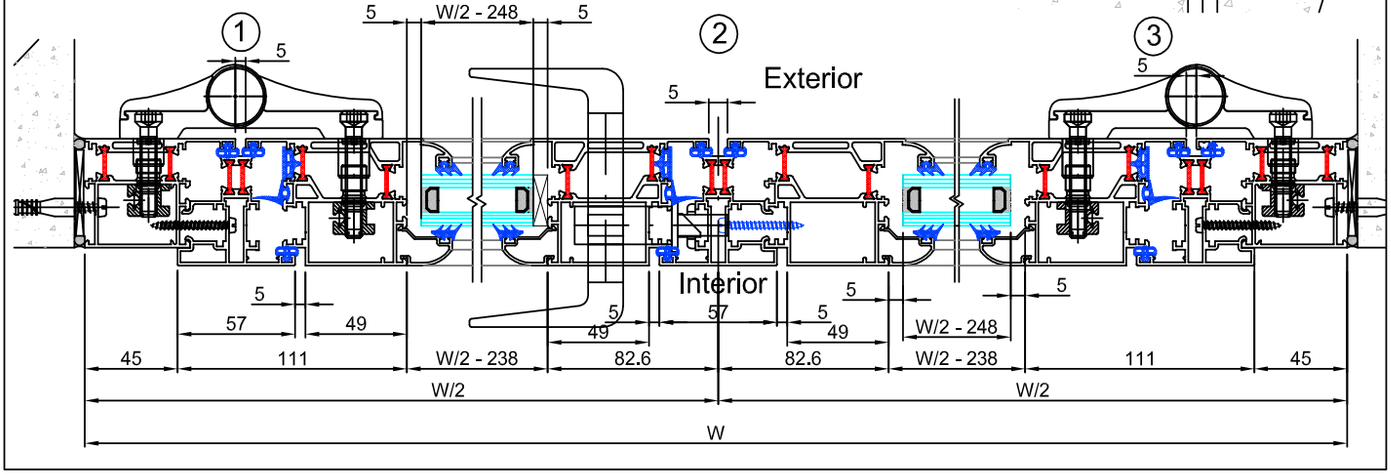
HEAVY DUTY
OUTWARD OPENING HINGED DOOR

ECO - 500









THERMAL BREAK HEAVY DUTY OUTWARD OPENING HINGED DOOR

ECO - 500

PROFILE CUTTING LIST

ITEM No.	DESCRIPTION & SECTION SHAPE	PROFILE No.	PROFILE CUTTING ANGLE	CUTTING SIZE	No. OF PIECES	REMARKS
1.	FRAME WIDTH	TA 533	45°	W	01	FOR SINGLE & DOUBLE D
2.	FRAME HEIGHT	TA 533	45° 1 AS SHOWN 1 AS REVERSE	H	02	H, FOR SINGLE & DOUBLE D
3.	ADOPTER FOR FOR FRAME WIDTH	TA 534	45°	W - 90	01	FOR SINGLE & DOUBLE D
4.	ADOPTER FOR FOR FRAME HEIGHT	TA 534	45° 1 AS SHOWN 1 AS REVERSE	H - 45	02	H - 45 FOR SINGLE & DOUBLE D
5.	SASH WIDTH	TA 535	45°		01	W - 156 (SINGLE D)
					02	W/2 - 80.5 (DOUBLE D)
6.	SASH HEIGHT	TA 535	45° 2 AS SHOWN 2 AS REVERSE	H - 88	02	SINGLE D
					04	DOUBLE D
7.	ADOPTER	TA 534		H - 88	00	SINGLE D
					01	DOUBLE D
8.	BOTTOM RAIL WIDTH	TA 517			01	W - 312 (SINGLE D)
					02	W/2 - 236.5 (DOUBLE D)
9.	BRUSH HOLDER	T 2518			01	W - 312 (SINGLE D)
					02	W/2 - 236.5 (DOUBLE D)
10.	THRESHOULD	T 2054		W - 158	01	W - 158
11.	GL BEAD WIDTH FOR SASH	T 2283			04	W - 312 (SINGLE D)
					08	W/2 - 236.5 (DOUBLE D)
12.	GL BEAD HEIGHT FOR SASH	T 2282		H - 318	02	H - 318 (SINGLE D)
					04	H - 318 (DOUBLE D)
13.	CORNER CLEAT FOR SASH	5575		28.5	04	MILL FINISH (SINGLE D)
					06	MILL FINISH (DOUBLE D)

ACCESSORIES LIST

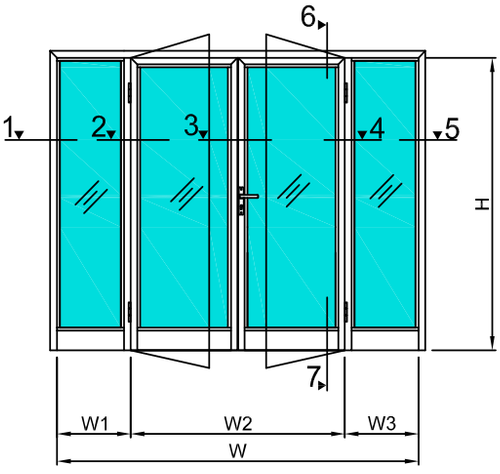
ITEM No.	ACCESSORY CODE No.	DESCRIPTION	FINISH	SINGLE LEAF	DOUBLE LEAF
1.	2472	DOOR LIVER HANDLE	P. C	01	01
2.	02111	FLUSH BOLT	M. F	-	2 SET
3.	00365	ALIGNMENT CORNER	M. F	01	04
4.	01314	STRICKER LATCH	M. F	-	01
5.	2144	BRASS BUSH	M. F	-	01
6.	91135XC	DOMUS LOCK SET	M. F	01	01
7.	16075K	DOMUS CYLINDER 74mm	M. F	01	01
8.	90185X	DOMUS STRIKING PLATE	M. F	01	01
9.	03239	SPACER FOR DOMINO HINGE	P. C	04	08
10.	03240	SPACER FOR DOMINO HINGE	P. C	04	08
11.	05070	DOMINO DOOR HINGE HP C/C 99mm FLAT	P. C	02	04

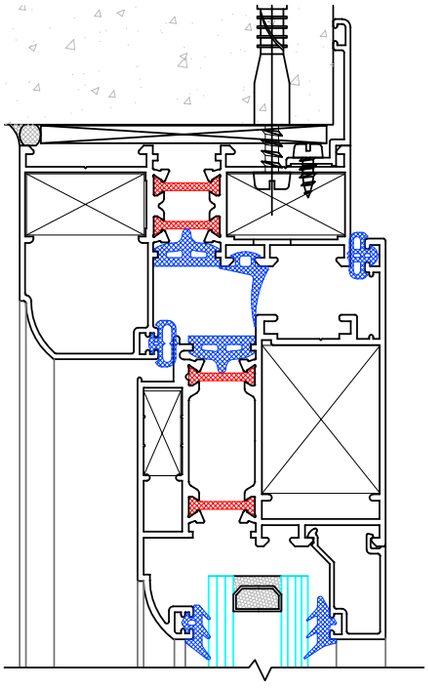
E.P.D.M. GASKET LIST

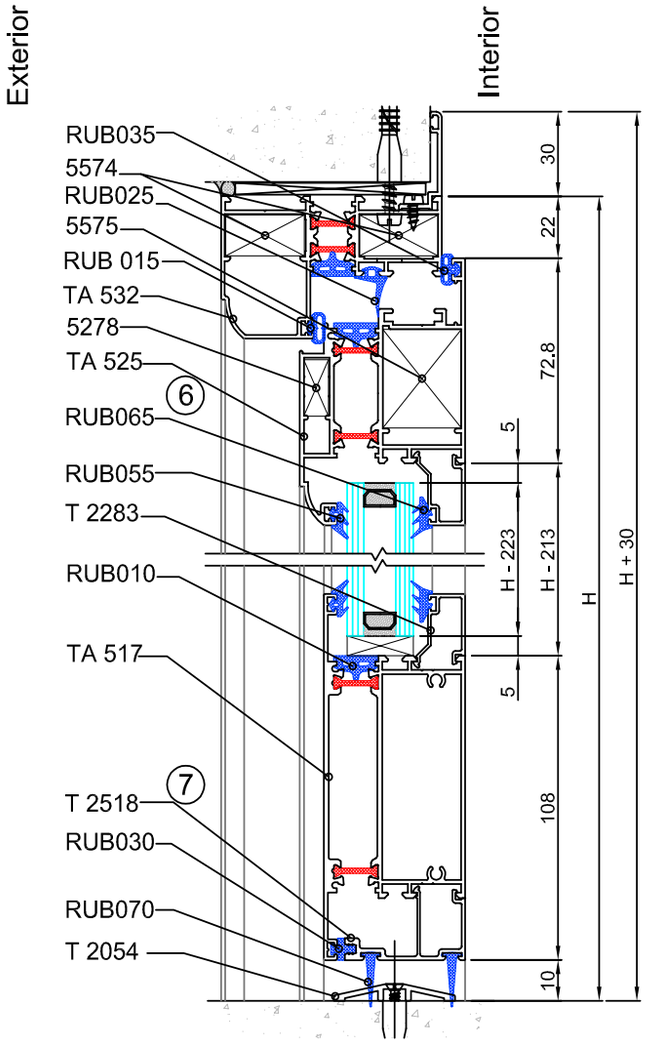
ITEM No.	GASKET CODE No.	DESCRIPTION	SINGLE LEAF	DOUBLE LEAF
1.	RUB 035	IMPACT GASKET INTERNAL	3W + 6H	3W + 9H
2.	RUB 010	THERMAL BARRIER GASKET	2W + 2H	2W + 3H
3.	RUB 025	CENTER GASKET	1W + 2H	1W + 3H
4.	RUB 055	INTERNAL GLAZING GASKET	2W + 2H	2W + 4H
5.	RUB 065	EXTERNAL GLAZING GASKET	2W + 2H	2W + 4H
6.	RUB 070	THRESHOULD GASKET	2W	2W
7.	RUB 030	THERMAL BREAK GASKET	1W	1W

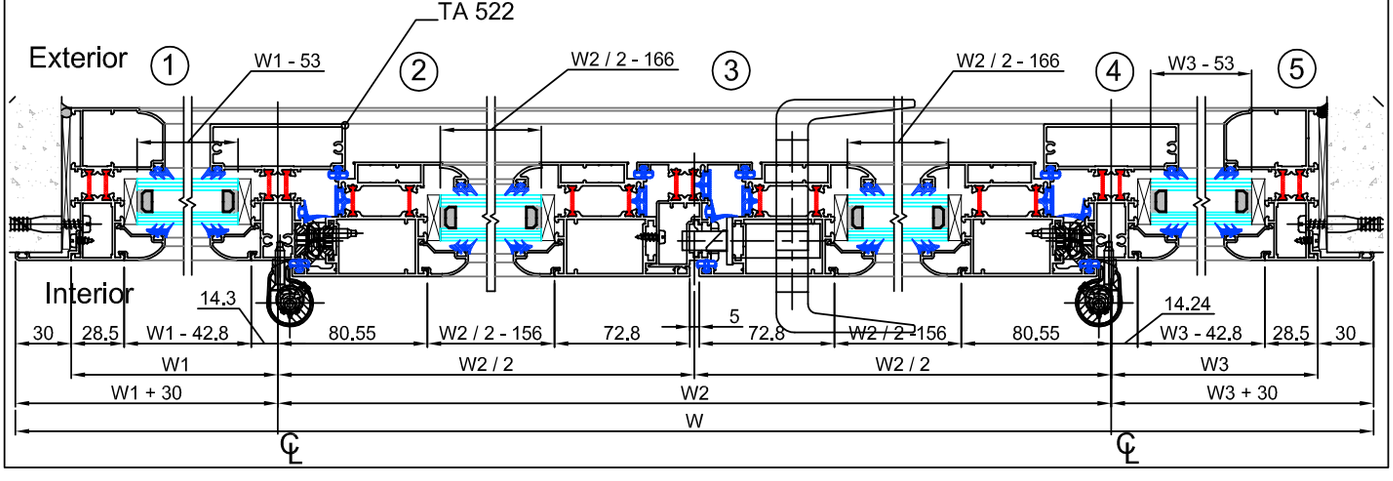
INWARD OPENING HINGED DOOR WITH PARTITIONS (SHOP FRONTS)

ECO - 500





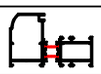
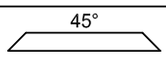
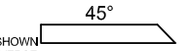
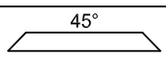
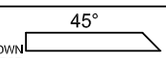
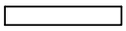
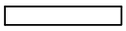
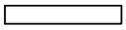
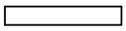
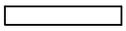
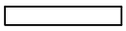
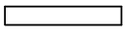
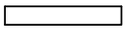
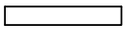
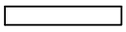
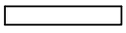
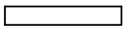
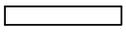
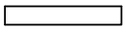
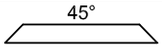
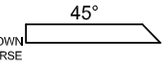




THERMAL BREAK
INWARD OPENING HINGED DOOR

ECO - 500

PROFILE CUTTING LIST

ITEM No.	DESCRIPTION & SECTION SHAPE	PROFILE No.	PROFILE CUTTING ANGLE	CUTTING SIZE	No. OF PIECES	REMARKS
1.	 FRAME WIDTH	TA 532	 45°	W	01	DOOR
2.	 FRAME HEIGHT	TA 532	 45° 1 AS SHOWN 1 AS REVERSE	H	02	DOOR
3.	 SASH WIDTH	TA 525	 45°	W2/2 - 10	04	W2/2 - 10
4.	 SASH HEIGHT	TA 525	 45° 2 AS SHOWN 2 AS REVERSE	H - 32	04	H - 32
5.	 ADOPTER	TA 518		H - 32	01	H - 32
6.	 MULLION	TA 522		H - 28.5	02	H - 28.5
7.	 BOTTOM RAIL WIDTH	TA 517		W2/2 - 156	02	W2/2 -156
8.	 BOTTOM RAIL WIDTH	TA 517		W1 - 42.75 W3 - 42.75	02	W1 - 42.75 W3 - 42.75
9.	 BRUSH HOLDER FOR SASH	T 2518		W2/2 - 156	02	W2/2 -156
10.	 BRUSH HOLDER FOR FIXLITE	T 2518		W1 - 42.75 W3 - 42.75	02	W1 - 42.75 W3 - 42.75
11.	THRESHOULD	T 2054		W2/2 - 28.5	01	W2/2 - 28.5
12.	 GL BEAD WIDTH FOR SASH	T 2283		W2/2 - 156	04	W2/2 -156
13.	 GL BEAD WIDTH FOR FIXLITE	T 2283		W1 - 42.75 W3 - 42.75	04	W1 - 42.75 W3 - 42.75
14.	 GL BEAD HEIGHT FOR SASH	T 2282		H - 223	04	H - 223
15.	 GL BEAD HEIGHT FOR FIXLITE	T 2282		H - 257	04	H - 257
16.	 CORNER CLEAT FOR FRAME	5574		28.5	04	MILL FINISH
17.	 CORNER CLEAT FOR SASH	5575		28.0	04	MILL FINISH
18.	 CORNER CLEAT FOR SASH	2496		8.5	04	MILL FINISH
19.	 ARCHITRIVE	T 3109	 45°	W + 60	01	
20.	 ARCHITRIVE	T 3109	 45° 1 AS SHOWN 1 AS REVERSE	H + 30	02	

ACCESSORIES LIST

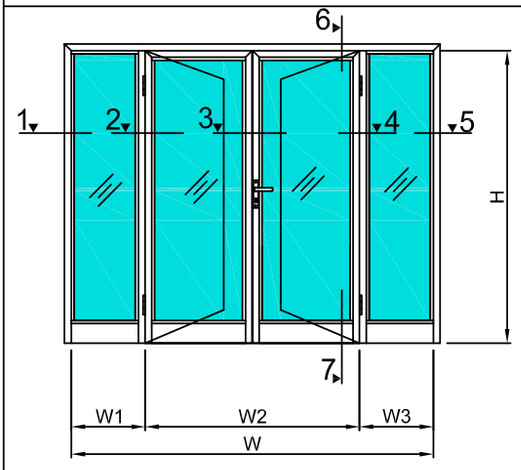
ITEM No.	ACCESSORY CODE No.	DESCRIPTION	FINISH	QTY
1.	00598	DOOR HINGES	P. C	04
2.	2472	DOOR LIVER HANDLE	P. C	01
3.	02111	FLUSH BOLT	M. F	2 SET
4.	00365	ALIGNMENT CORNER	M. F	04
5.	01314	STRICKER LATCH	M. F	01
6.	2144	BRASS BUSH	M. F	01
7.	91135XC	DOMUS LOCK SET	M. F	01
8.	16075K	DOMUS CYLINDER 74mm	M. F	01
9.	90185X	DOMUS STRIKING PLATE	M. F	01

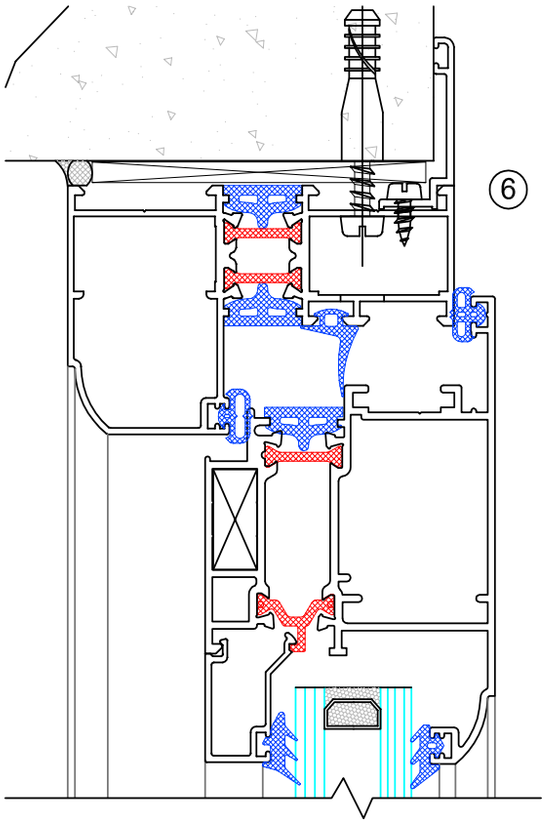
E.P.D.M. GASKET LIST

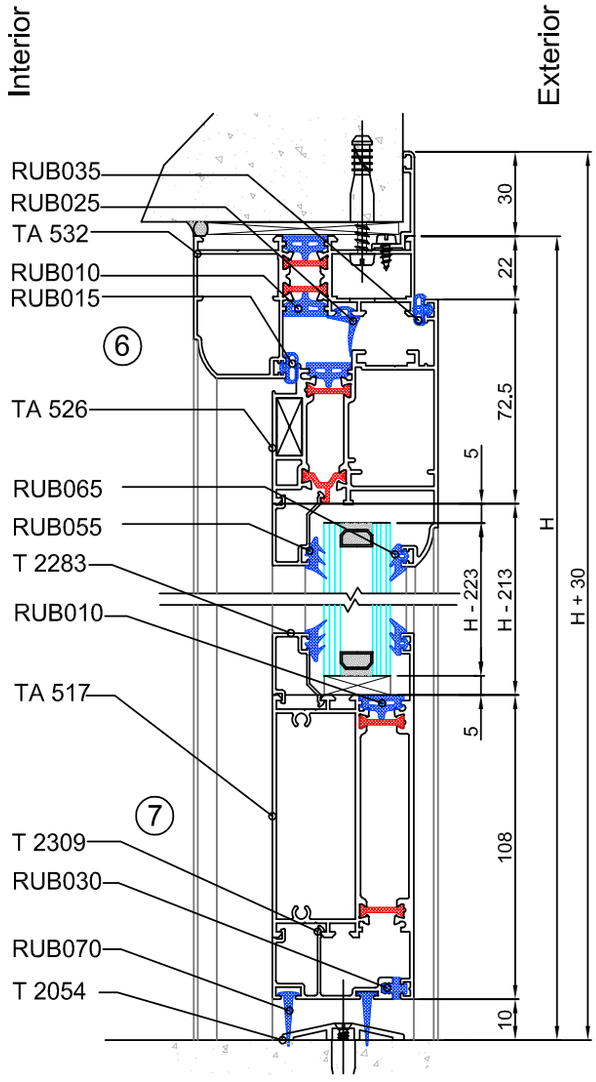
ITEM No.	GASKET CODE No.	DESCRIPTION	QTY
1.	RUB 035	IMPACT GASKET INTERNAL	1W2 + 4H
2.	RUB 035	IMPACT GASKET EXTERNAL	1W + 2H
3.	RUB 010	THERMAL BARRIER GASKET	1W + 9H
4.	RUB 025	CENTER GASKET	1W + 2H
5.	RUB 055	INTERNAL GLAZING GASKET	2W + 8H
6.	RUB 065	EXTERNAL GLAZING GASKET	2W + 8H
7.	RUB 070	THRESHOULD GASKET	W2/2 + 2H

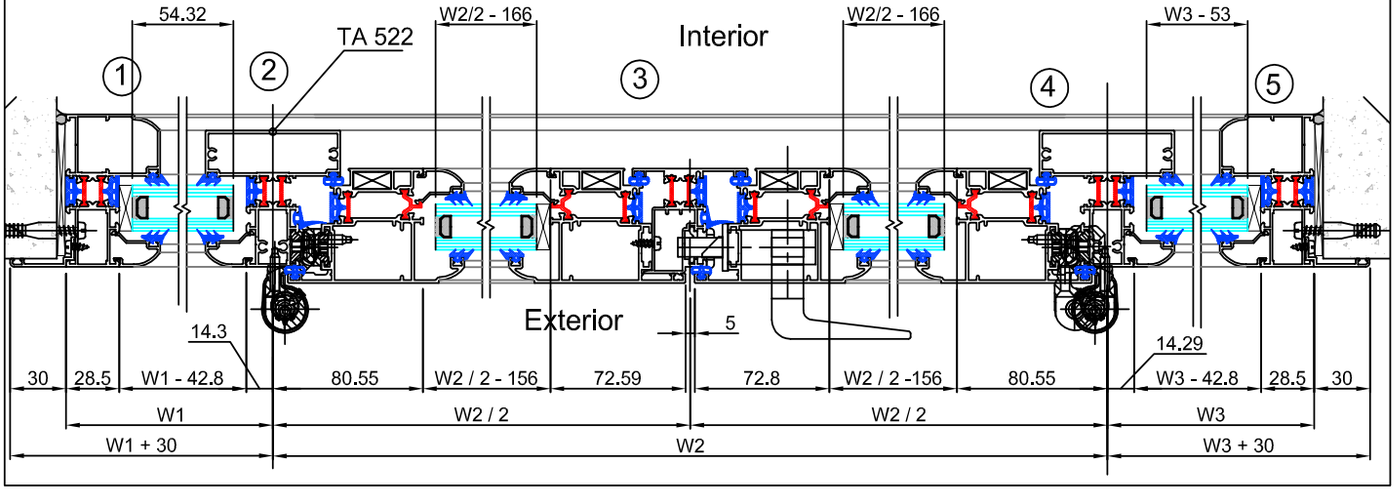
OUTWARD OPENING HINGED DOOR WITH PARTITIONS (SHOP FRONTS)

ECO - 500





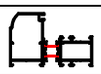
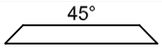
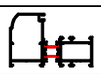
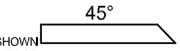
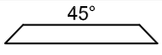
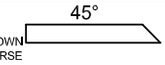
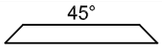
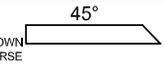




THERMAL BREAK
OUTWARD OPENING HINGED DOOR

ECO - 500

PROFILE CUTTING LIST

ITEM No.	DESCRIPTION & SECTION SHAPE	PROFILE No.	PROFILE CUTTING ANGLE	CUTTING SIZE	No. OF PIECES	REMARKS
1.	FRAME WIDTH 	TA 532	 45°	W	01	DOOR
2.	FRAME HEIGHT 	TA 532	 45° 1 AS SHOWN 1 AS REVERSE	H	02	DOOR
3.	SASH WIDTH 	TA 526	 45°	W2/2 - 10	04	W2/2 - 10
4.	SASH HEIGHT 	TA 526	 45° 2 AS SHOWN 2 AS REVERSE	H - 32	04	H - 32
5.	ADOPTER 	TA 518		H - 32	01	H - 32
6.	MULLION 	TA 522		H - 28.5	02	H - 28.5
7.	BOTTOM RAIL WIDTH 	TA 517		W2/2 - 156	02	W2/2 -156
8.	BOTTOM RAIL WIDTH 	TA 517		W1 - 42.75 W3 - 42.75	02	W1 - 42.75 W3 - 42.75
9.	BRUSH HOLDER FOR SASH 	T 2518		W2/2 - 156	02	W2/2 -156
10.	BRUSH HOLDER FOR FIXLITE 	T 2518		W1 - 42.75 W3 - 42.75	02	W1 - 42.75 W3 - 42.75
11.	THRESHOULD	T 2054		W2/2 - 28.5	01	W2/2 - 28.5
12.	GL BEAD WIDTH FOR SASH 	T 2283		W2/2 - 156	04	W2/2 -156
13.	GL BEAD WIDTH FOR FIXLITE 	T 2283		W1 - 42.75 W3 - 42.75	04	W1 - 42.75 W3 - 42.75
14.	GL BEAD HEIGHT FOR SASH 	T 2282		H - 223	04	H - 223
15.	GL BEAD HEIGHT FOR FIXLITE 	T 2282		H - 257	04	H - 257
16.	CORNER CLEAT FOR FRAME 	5574		28.5	04	MILL FINISH
17.	CORNER CLEAT FOR SASH 	5575		28.0	04	MILL FINISH
18.	CORNER CLEAT FOR SASH 	2496		8.5	04	MILL FINISH
19.	ARCHITRIVE 	T 3109	 45°	W + 60	01	
20.	ARCHITRIVE 	T 3109	 45° 1 AS SHOWN 1 AS REVERSE	H + 30	02	

ACCESSORIES LIST

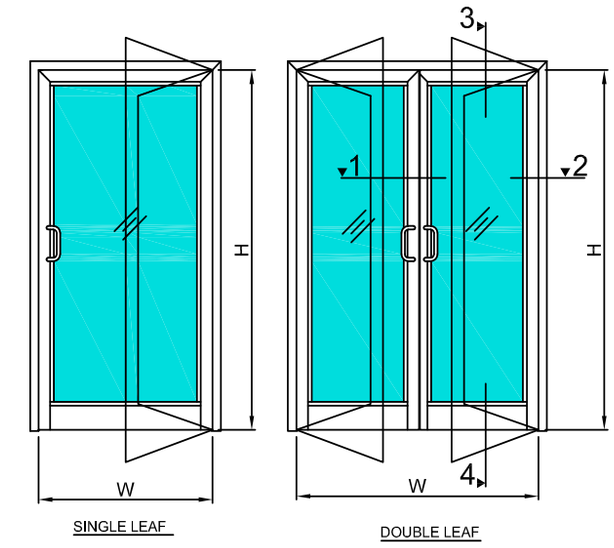
ITEM No.	ACCESSORY CODE No.	DESCRIPTION	FINISH	QTY
1.	00598	DOOR HINGES	P. C	04
2.	2472	DOOR LIVER HANDLE	P. C	01
3.	02111	FLUSH BOLT	M. F	2 SET
4.	00365	ALIGNMENT CORNER	M. F	04
5.	01314	STRICKER LATCH	M. F	01
6.	2144	BRASS BUSH	M. F	01
7.	91135XC	DOMUS LOCK SET	M. F	01
8.	16075K	DOMUS CYLINDER 74mm	M. F	01
9.	90185X	DOMUS STRIKING PLATE	M. F	01

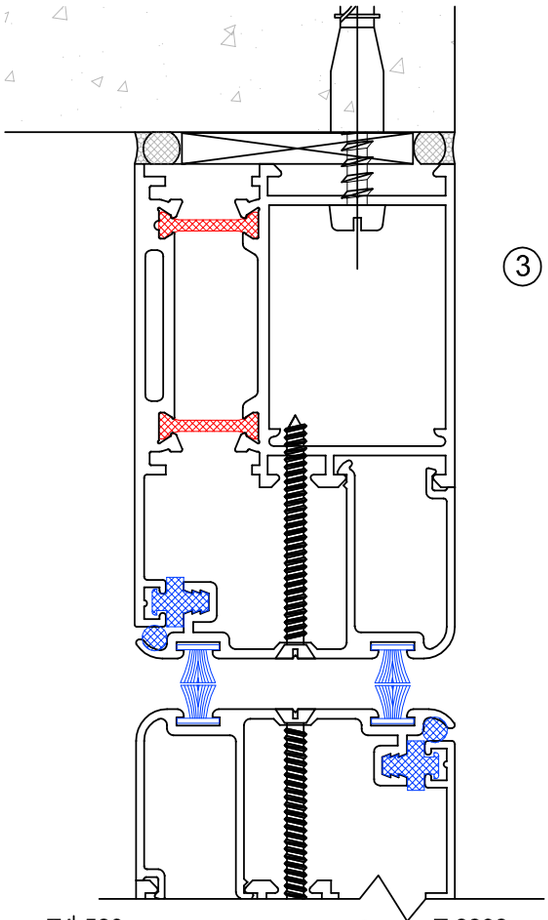
E.P.D.M. GASKET LIST

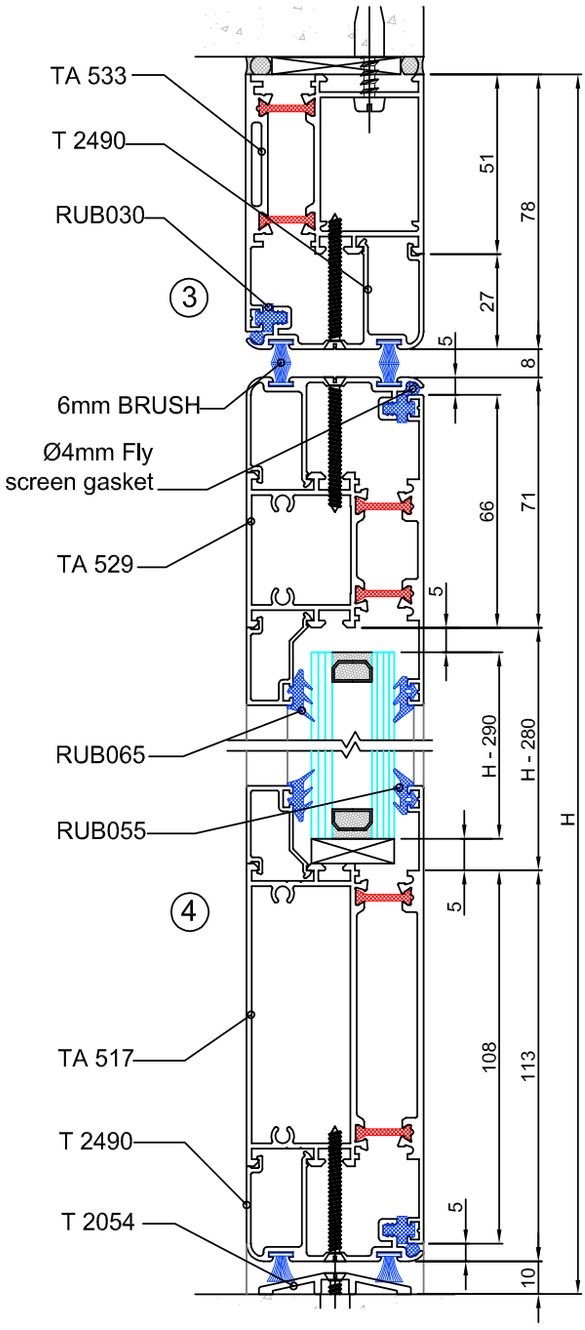
ITEM No.	GASKET CODE No.	DESCRIPTION	QTY
1.	RUB 035	IMPACT GASKET INTERNAL	1W2 + 4H
2.	RUB 035	IMPACT GASKET EXTERNAL	1W + 2H
3.	RUB 010	THERMAL BARRIER GASKET	1W + 9H
4.	RUB 025	CENTER GASKET	1W + 2H
5.	RUB 055	INTERNAL GLAZING GASKET	2W + 8H
6.	RUB 065	EXTERNAL GLAZING GASKET	2W + 8H
7.	RUB 070	THRESHOULD GASKET	W2/2 + 2H

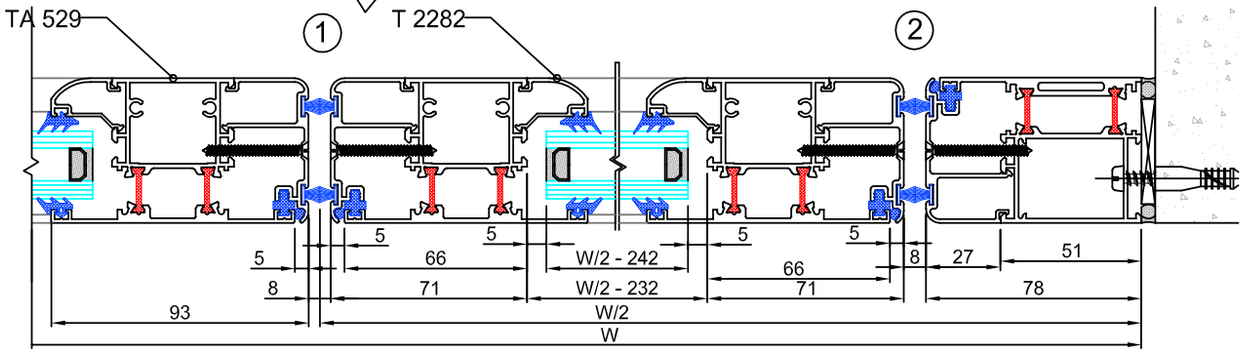
CASEMENT THERMAL BREAK SWING DOOR

ECO - 500









THERMAL BREAK
INWARD OPENING HINGED DOOR

ECO - 500

PROFILE CUTTING LIST

ITEM No.	DESCRIPTION & SECTION SHAPE	PROFILE No.	PROFILE CUTTING ANGLE	CUTTING SIZE	No. OF PIECES	REMARKS
1.	FRAME WIDTH	TA 533	45°	W	01	FOR SINGLE & DOUBLE D
2.	FRAME HEIGHT	TA 533	45° 1 AS SHOWN 1 AS REVERSE	H	02	FOR SINGLE & DOUBLE D
3.	SASH WIDTH	TA 529	45°	W	01	W - 182 (SINGLE D)
					02	W/2 - 100 (DOUBLE D)
4.	SASH HEIGHT	TA 529	45° 2 AS SHOWN 2 AS REVERSE	H -106	02	H - 106 (SINGLE D)
					04	H - 106 (DOUBLE D)
5.	BOTTOM RAIL WIDTH	TA 517		W	01	W - 314 (SINGLE D)
					02	W/2 - 232 (DOUBLE D)
6.	ADOPTER FOR FRAME WIDTH	T 2490	45°	W - 92	01	CLIP WITH FRAME BEFORE CUTTING
7.	ADOPTER FOR FRAME HEIGHT	T 2490	45°	H - 46	02	CLIP WITH FRAME BEFORE CUTTING
8.	ADOPTER FOR SASH WIDTH	T 2490	45°	W/2	02	W - 172 (SINGLE D)
					04	W/2 - 90 (DOUBLE D)
9.	ADOPTER FOR SASH HEIGHT	T 2490	45°	H - 96	02	SINGLE D
					04	DOUBLE D
10.	GL BEAD WIDTH FOR SASH	T 2283		W	02	W - 314 (SINGLE D)
					04	W/2 - 232 (DOUBLE D)
11.	GL BEAD HEIGHT FOR SASH	T 2282		H - 324	02	H - 324 (SINGLE D)
					04	H - 324 (DOUBLE D)
12.	CORNER CLEAT FOR FRAME	5575		28.0	02	MILL FINISH
13.	CORNER CLEAT FOR SASH	5150		28.5	02	MILL FINISH
					04	MILL FINISH

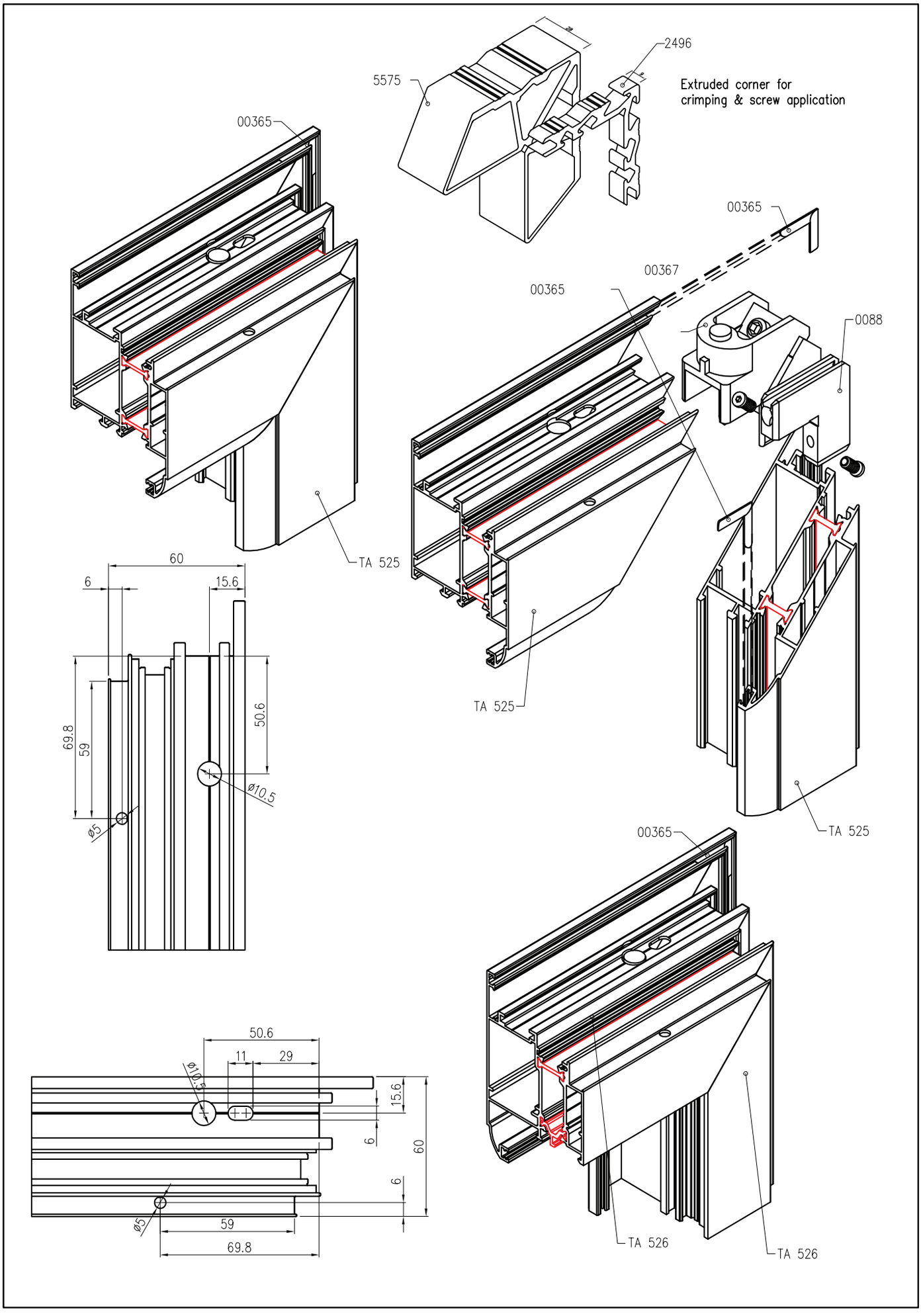
ACCESSORIES LIST

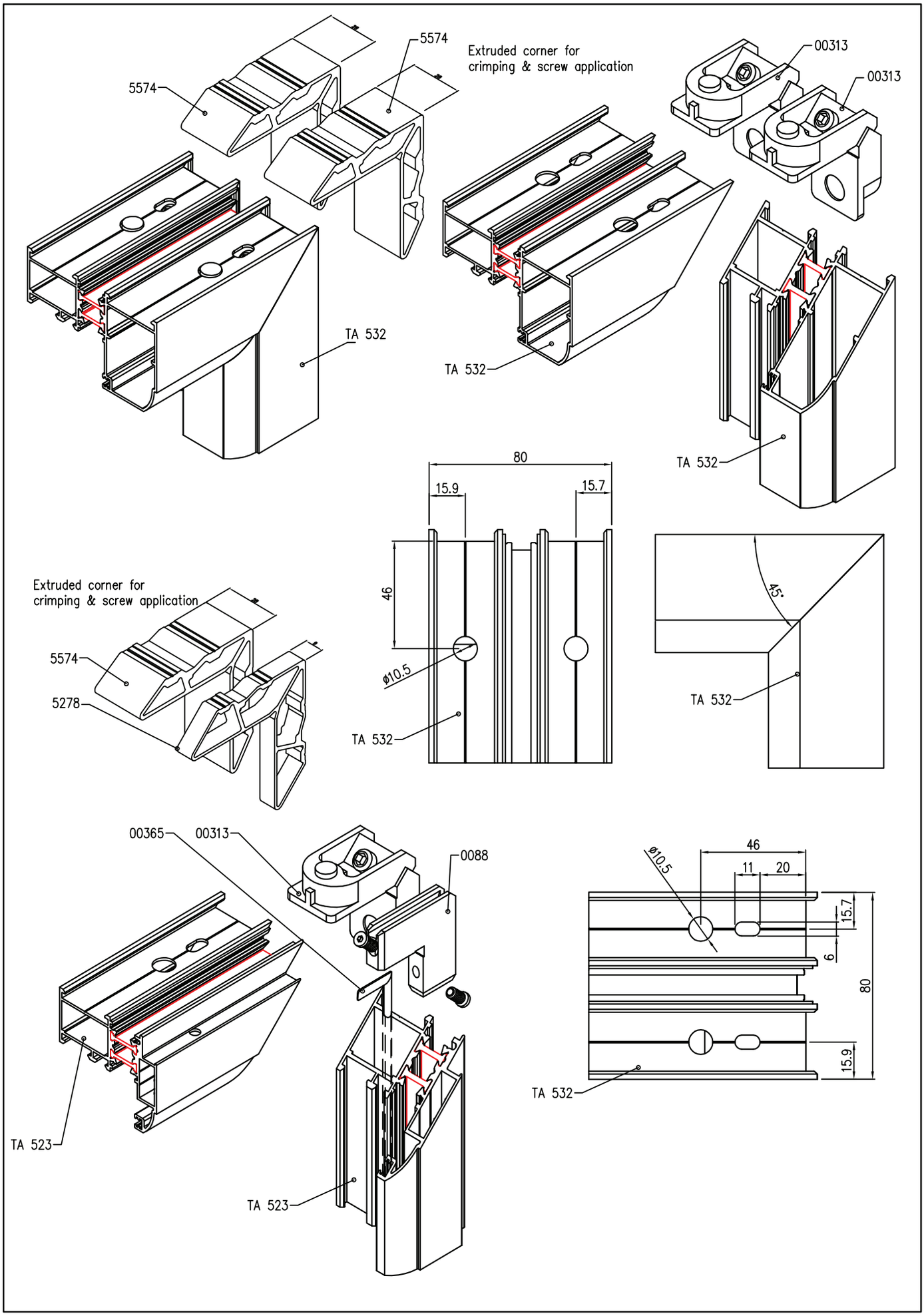
ITEM No.	ACCESSORY CODE No.	DESCRIPTION	FINISH	SINGLE LEAF	DOUBLE LEAF
1.	2604	DOUBLE BEND HANDLE	P. C	01	02
2.	2668	KIT FOR HANDLE	M. F	01 SET	02 SET
3.	02111	FLUSH BOLT	M. F	-	01 SET
4.	16075K	DOMUS CYLINDER 74mm		01	01
5.	90185X	DOMUS STRIKING PLATE		01	01
6.	92135XT	DOMUS ROLLER LOCKSET	P. C	01 SET	01 SET
7.	BTS 75V	DORMA FLOOR SPRING COVER PIVOTS COMPLETE SET	P. C	01 SET	02 SET

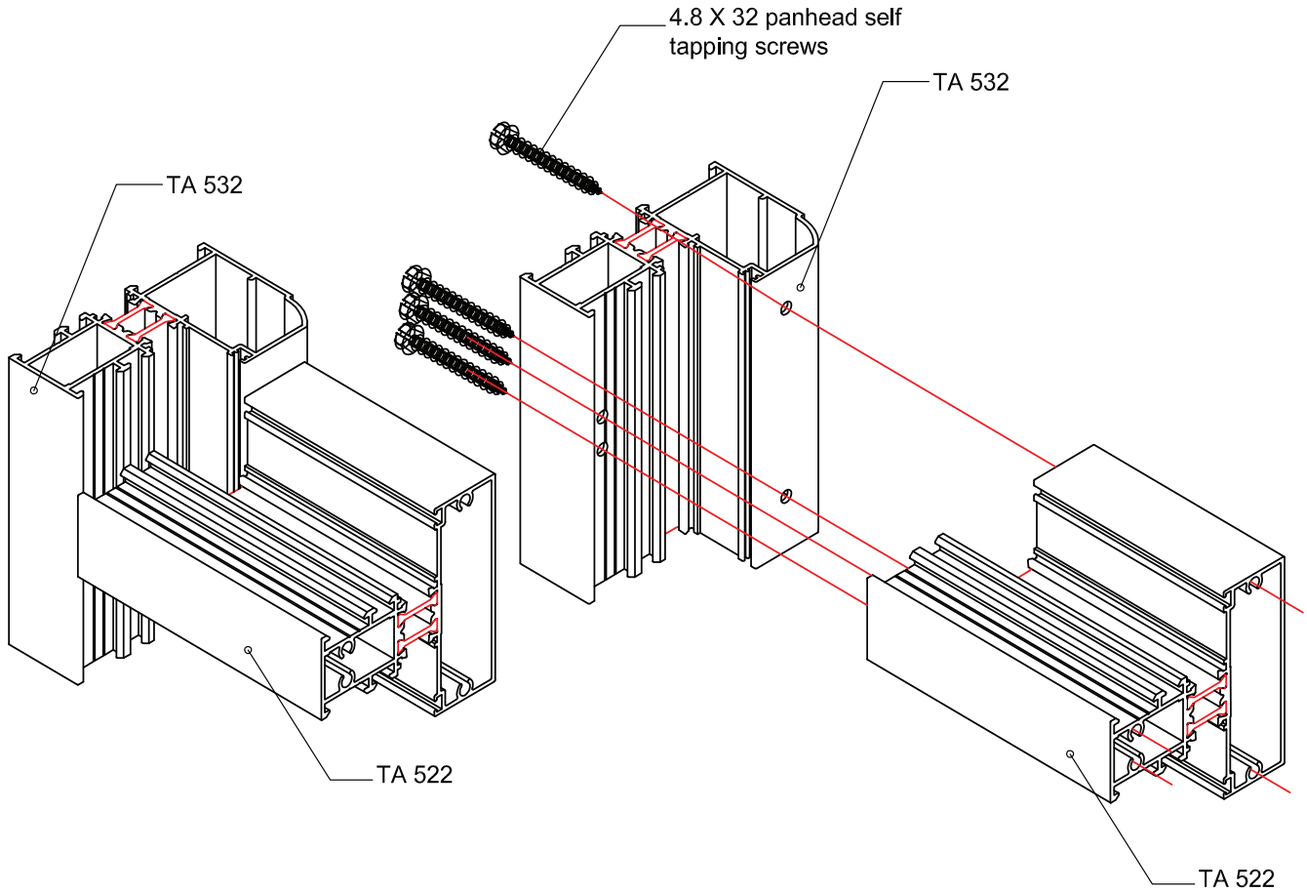
E.P.D.M. GASKET LIST

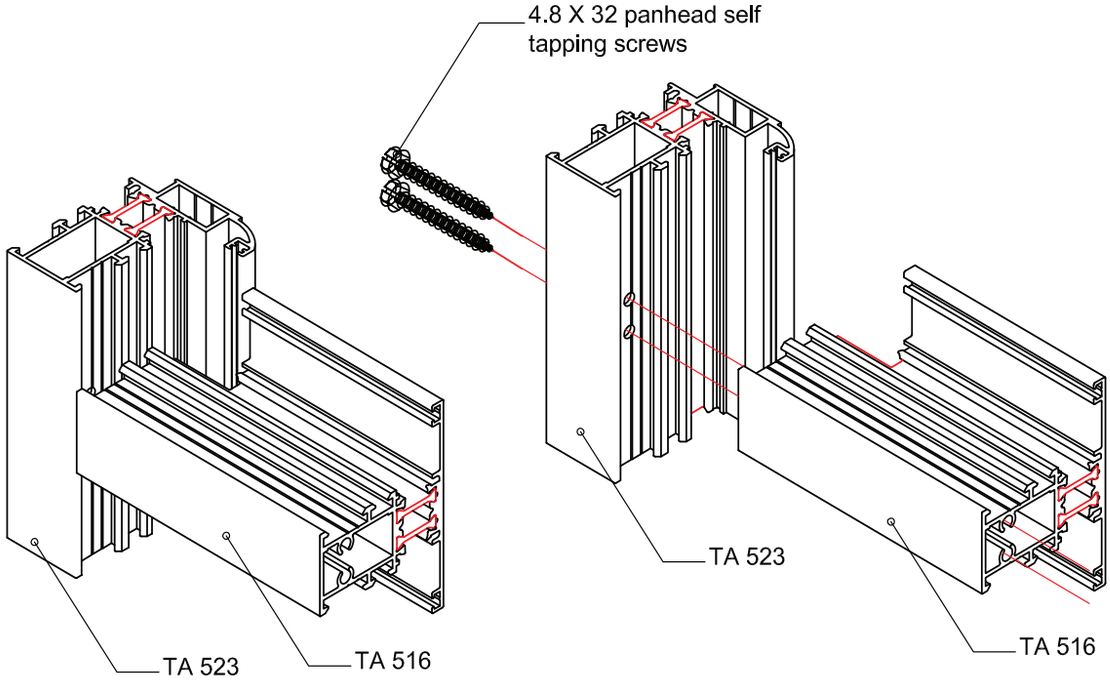
ITEM No.	GASKET CODE No.	DESCRIPTION	SINGLE LEAF	DOUBLE LEAF
1.	RUB 065	INNER GASKET	2W + 2H	2W + 4H
2.	PB.69-600-3P	WEATHER SEAL PILE	4W + 8H	4W + 12H
3.	RUB 030	THERMAL BREAK GASKET	1W	1W
4.	RUB 075	Ø4mm GASKET	1W	1W

NOTE: ADOPTER SECTION T2490 TO BE CLIP WITH FRAME AND SASH BEFORE CUTTING.


2496
5575
Extruded corner for
crimping & screw application
00365
00365
00367
00365
0088
TA 525
TA 525
TA 525
60
6
15.6
69.8
59
50.6
Ø10.5
Ø5
00365
50.6
11
29
Ø10.5
15.6
6
60
6
Ø5
59
69.8
TA 526
TA 526


5574
5574
TA 532
Extruded corner for
crimping & screw application
00313
00313
TA 532
TA 532
80
15.9
15.7
46
ø10.5
TA 532
45°
TA 532
Extruded corner for
crimping & screw application
5574
5278
00365
00313
0088
TA 523
TA 523
46
ø10.5
11
20
15.7
6
80
15.9
TA 532

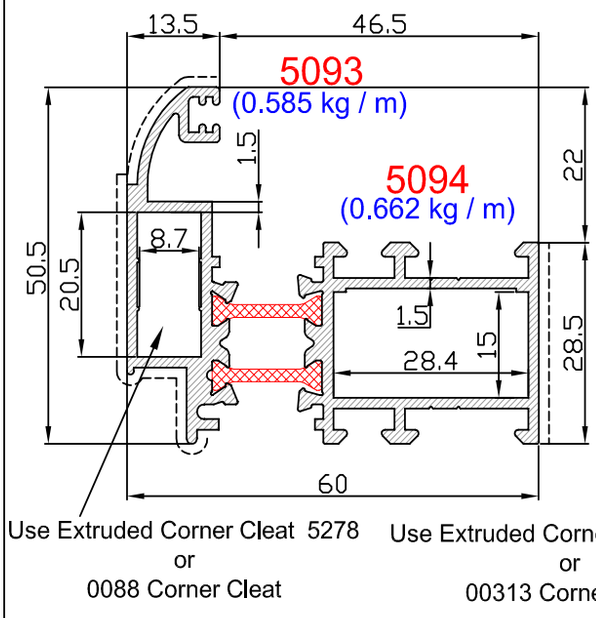

4.8 X 32 panhead self tapping screws
TA 532
TA 532
TA 522
TA 522


4.8 X 32 panhead self tapping screws
TA 523
TA 516
TA 523
TA 516

CASEMENT THERMAL BREAK HINGED WINDOWS AND DOORS SECTIONS

ECO - 500

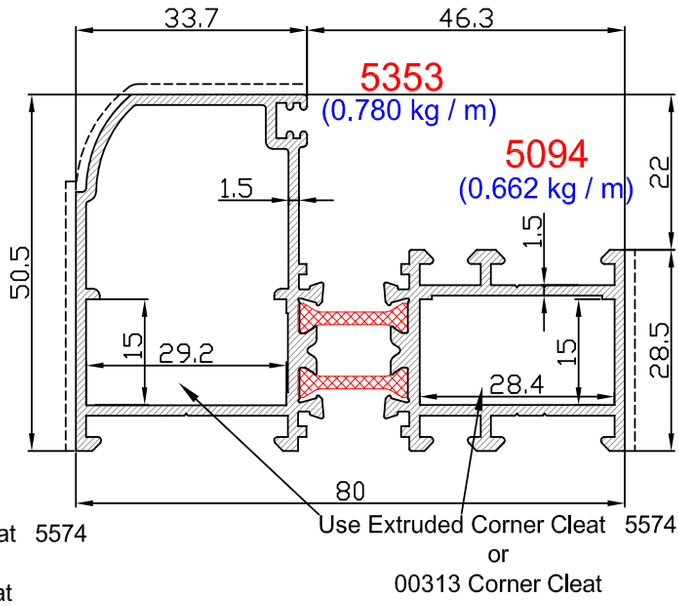
Window frame



TA 523

1.342 kg/m

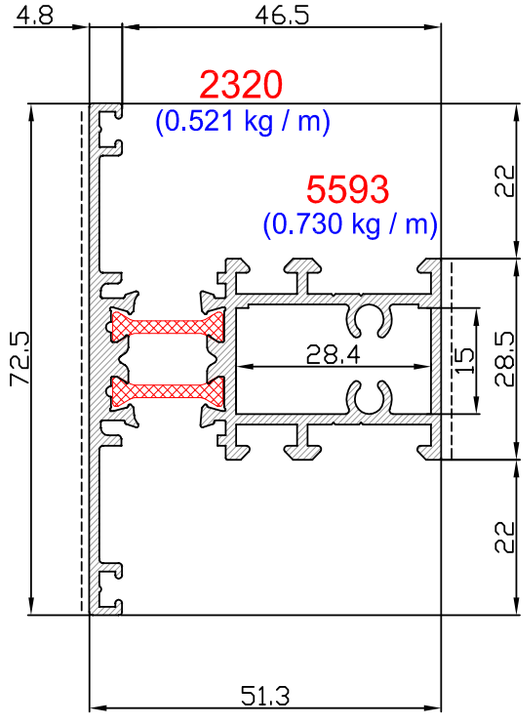
Window/door frame



TA 532

1.537 kg/m

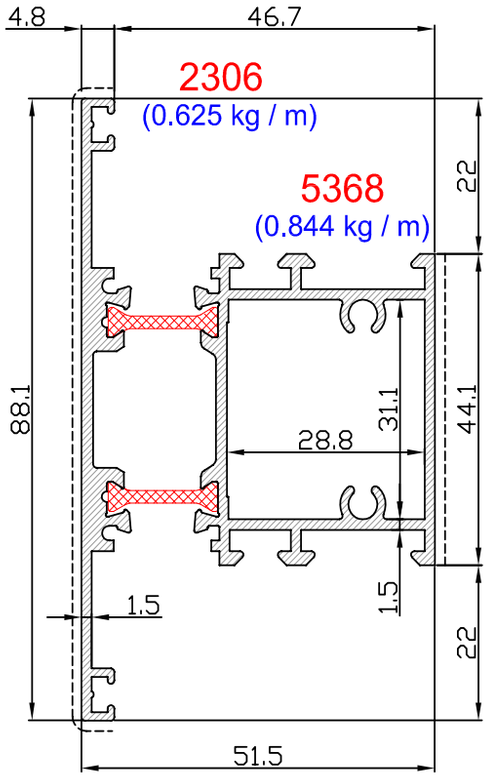
Small T-section



TA 516

1.346 kg/m

Medium T-section



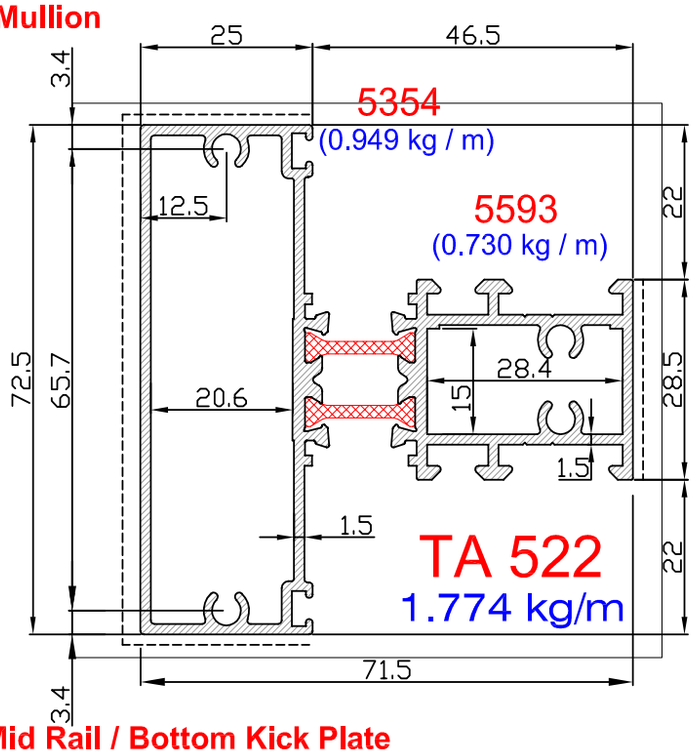
TA 529

1.564 kg/m

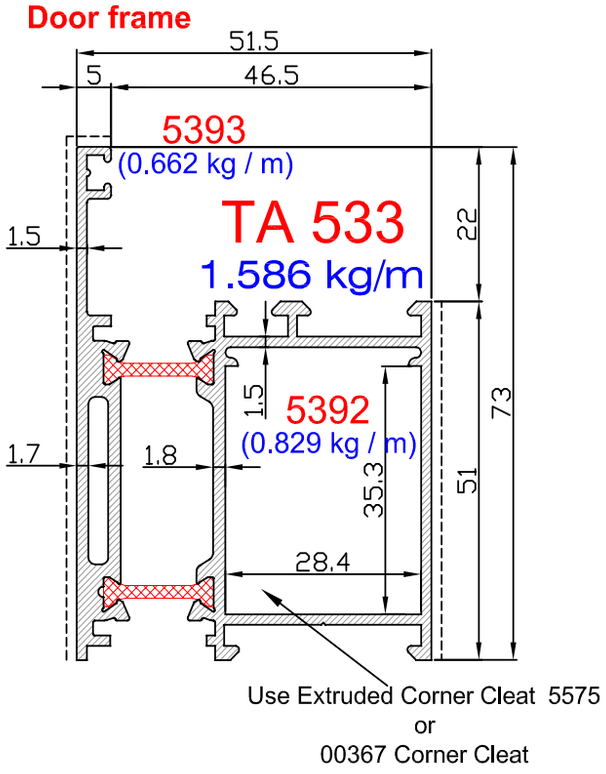
CASEMENT THERMAL BREAK HINGED WINDOWS AND DOORS SECTIONS

ECO - 500

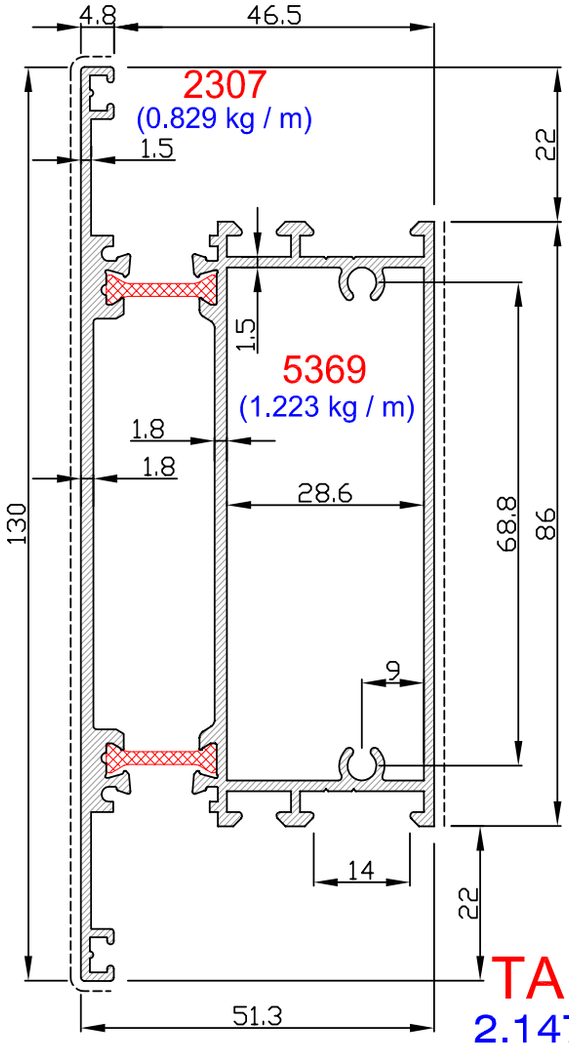
Mullion



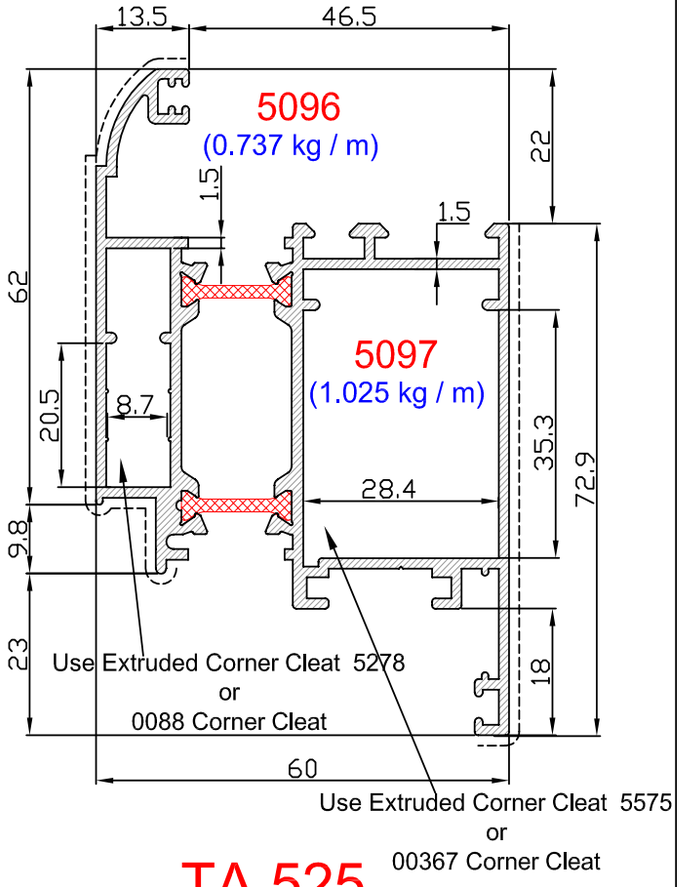
Door frame



Mid Rail / Bottom Kick Plate



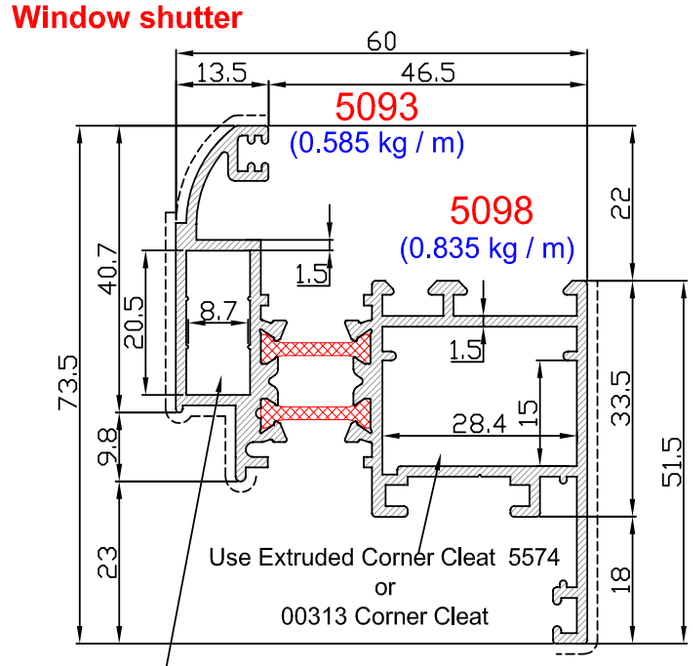
Door shutter inward opening



CASEMENT THERMAL BREAK
HINGED WINDOWS AND DOORS SECTIONS

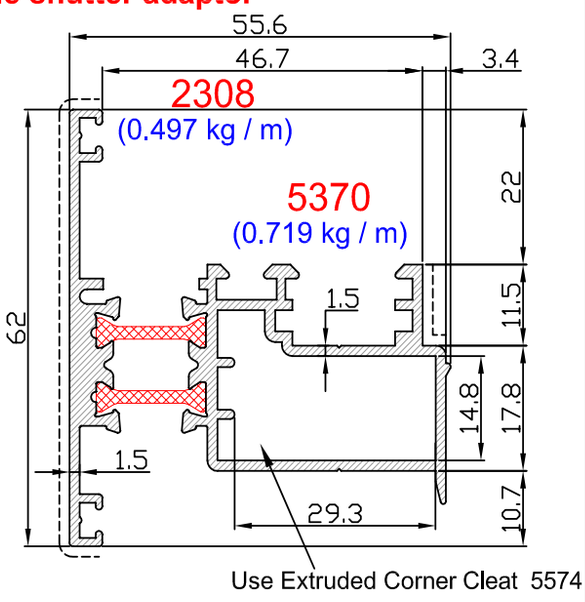
ECO - 500

Window shutter



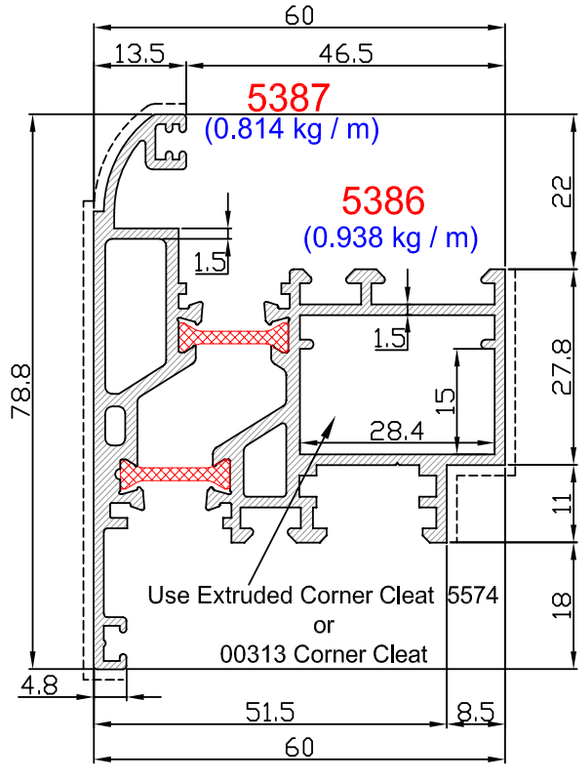
TA 524
1.515 kg/m

Double shutter adaptor



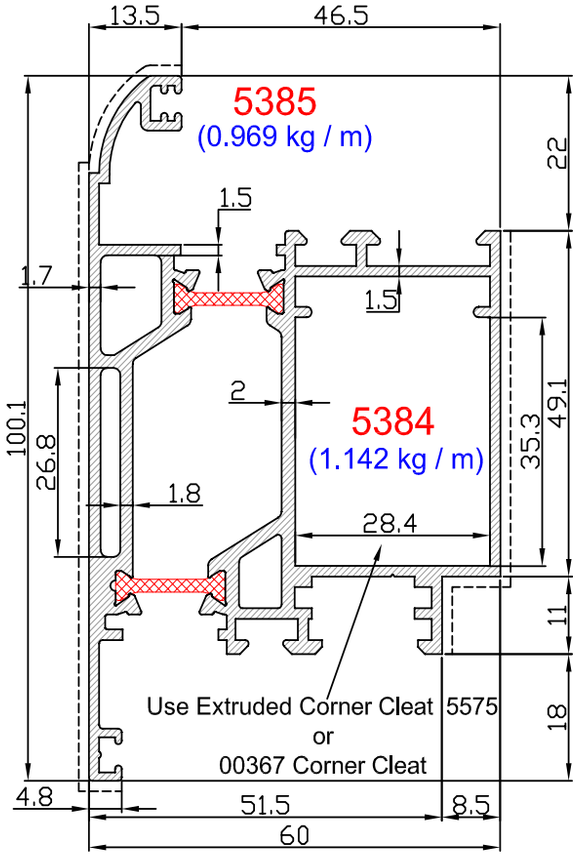
TA 518
1.311 kg/m

Window shutter outward openable



TA 536
1.847 kg/m

Door shutter outward openable

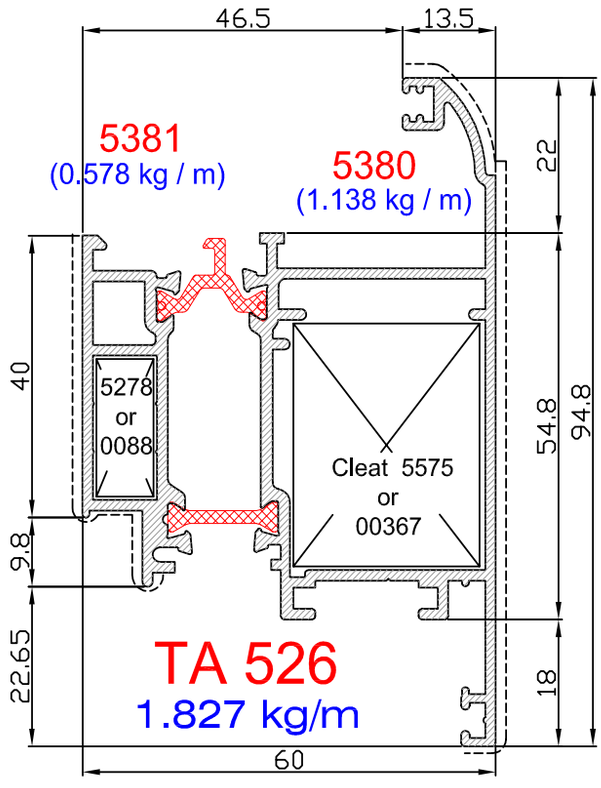


TA 535
2.206 kg/m

CASEMENT THERMAL BREAK HINGED WINDOWS AND DOORS SECTIONS

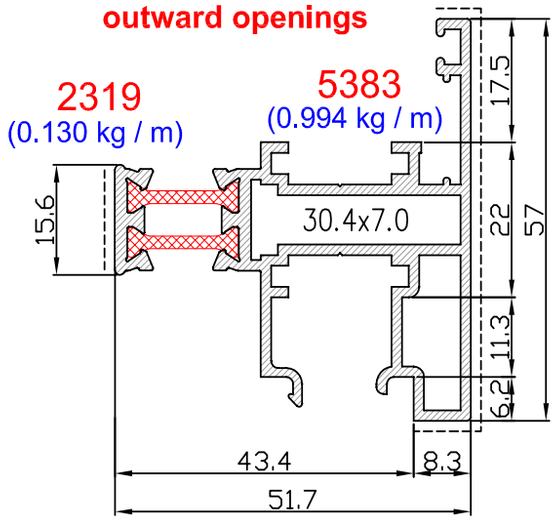
ECO - 500

Door shutter outward openable

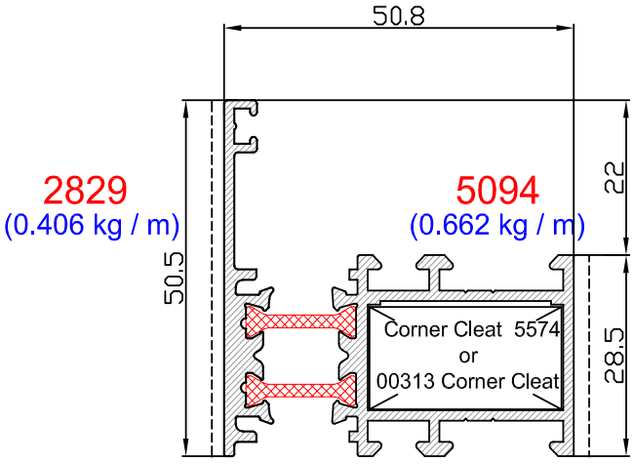


TA 526
1.827 kg/m

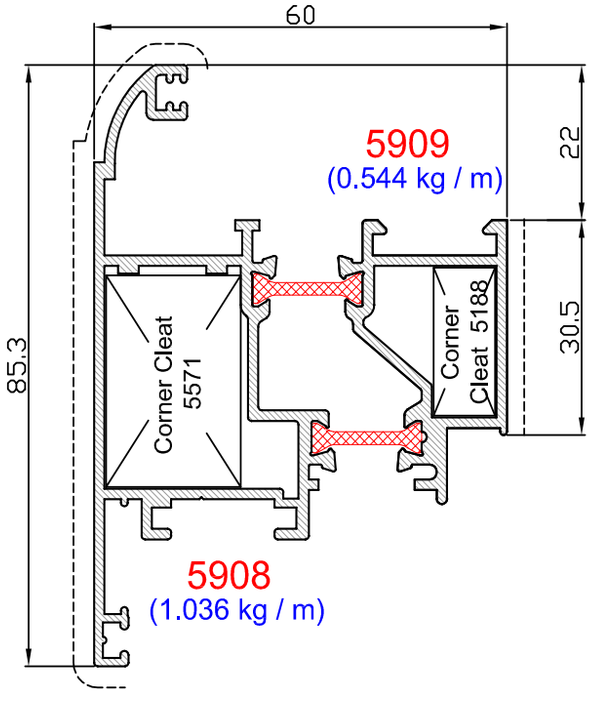
Frame converter for outward openings



TA 534
1.219 kg/m



TA 544
1.163 kg/m
Window Frame Outward Openable

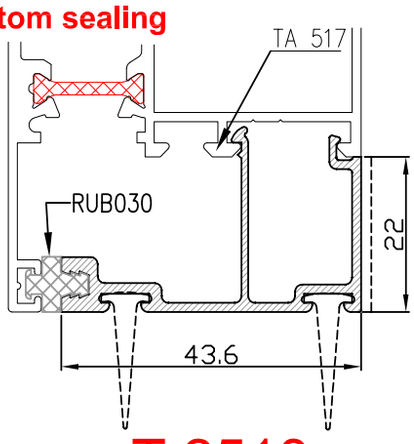


TA 545
1.675 kg/m
Window Shutter Outward Openable

CASEMENT THERMAL BREAK
HINGED WINDOWS AND DOORS SECTIONS

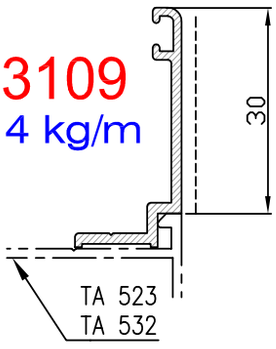
ECO - 500

Bottom sealing



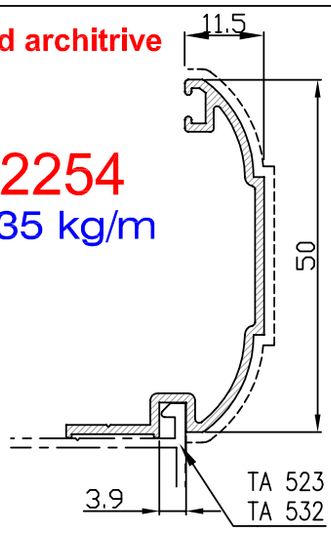
T 2518
0.424 kg/m

Architrive



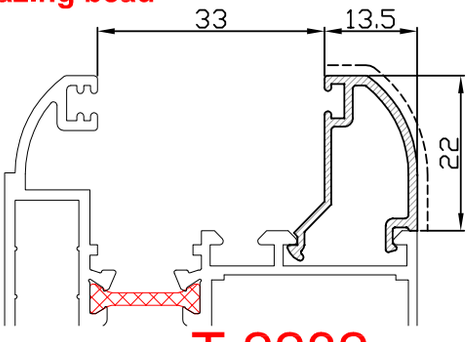
T 3109
0.214 kg/m

Decorated architrive



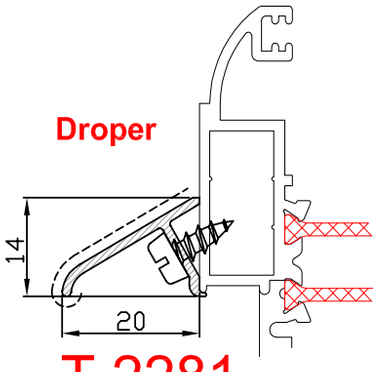
T 2254
0.335 kg/m

Glazing bead



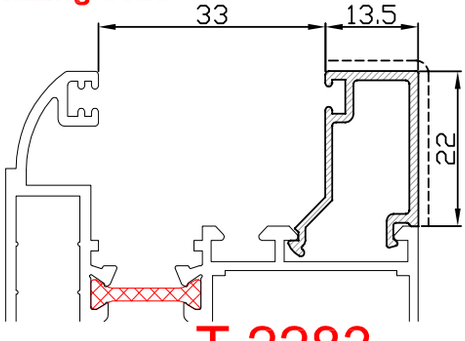
T 2282
0.219 kg/m

Droper



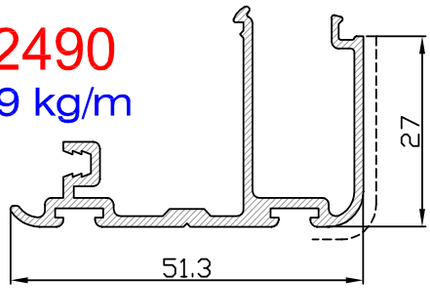
T 2281
0.127 kg/m

Glazing bead



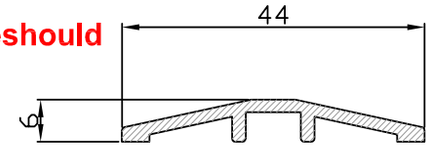
T 2283
0.235 kg/m

Adapter for swing door



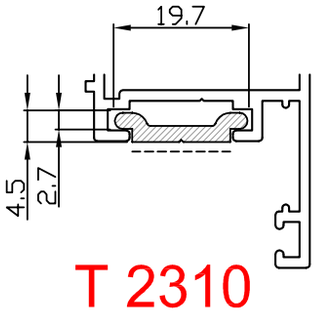
T 2490
0.559 kg/m

Threshould



T 2054
(0.270 kg / m)

Connecting Rod

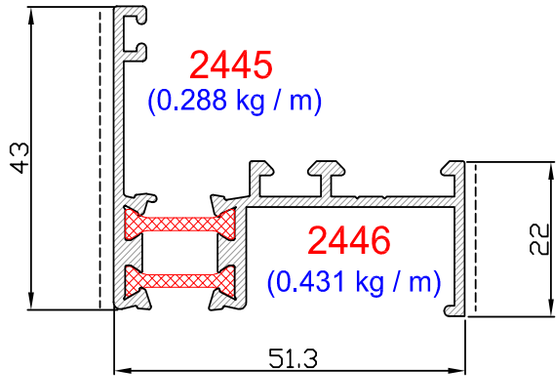


T 2310
0.132 kg/m

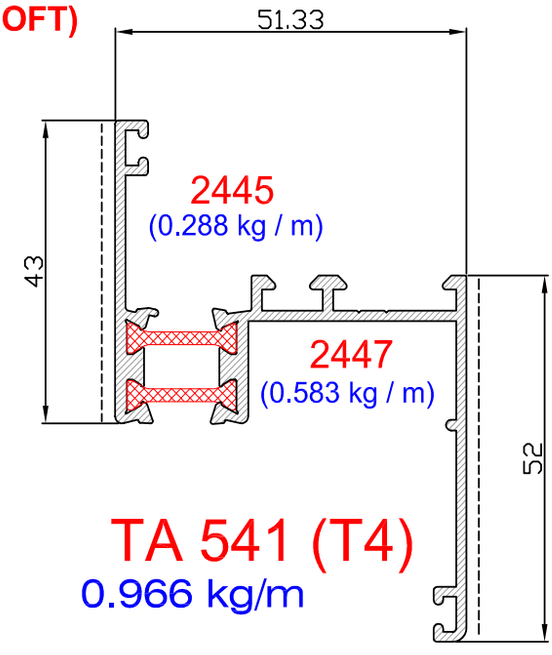
CASEMENT THERMAL BREAK
HINGED WINDOWS AND DOORS SECTIONS

ECO - 500

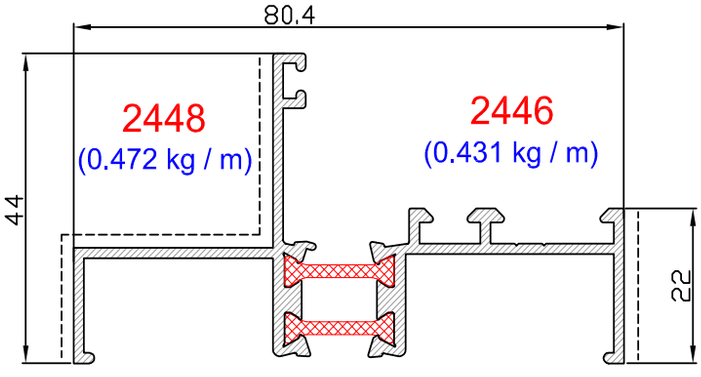
SECTIONS FOR BENDING APPLICATION (T4 SOFT)



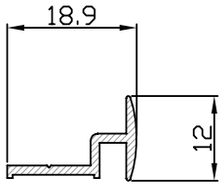
TA 540 (T4)
0.814 kg/m



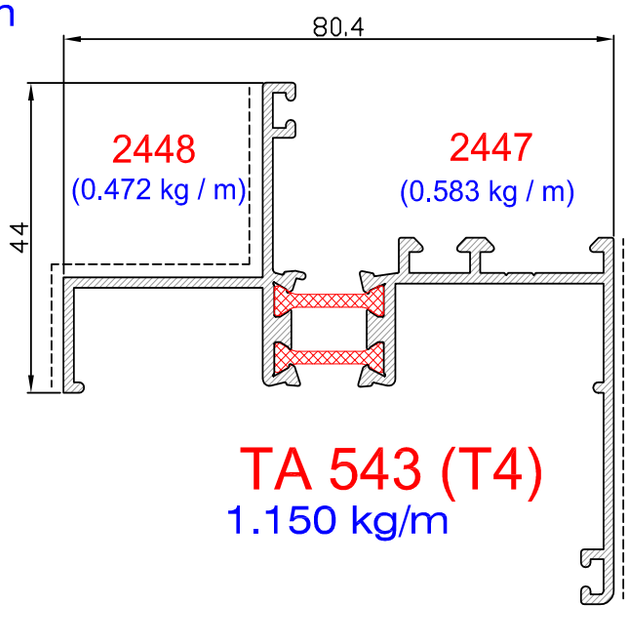
TA 541 (T4)
0.966 kg/m



TA 542 (T4)
0.998 kg/m



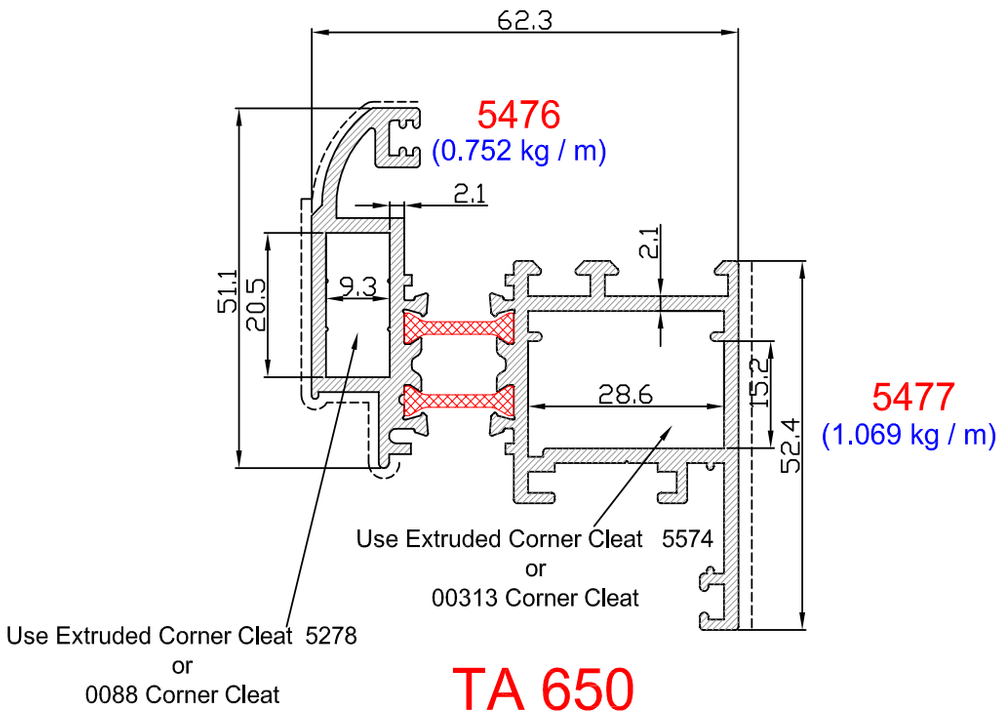
T 2253
0.116 kg/m



TA 543 (T4)
1.150 kg/m

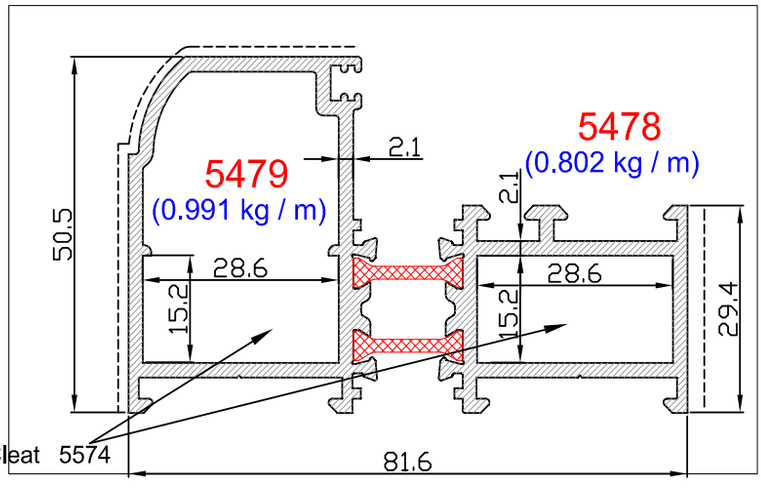
HEAVY DUTY PROFILES (2.1mm THICK)

Window shutter



TA 650
1.916 kg/m

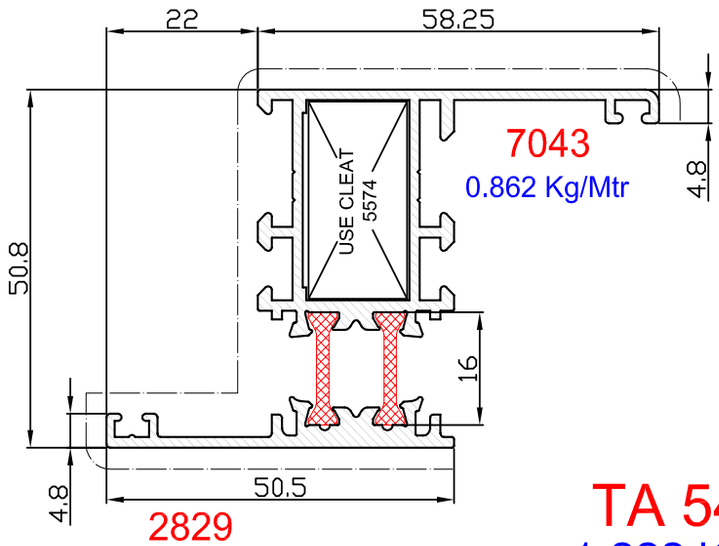
Window frame



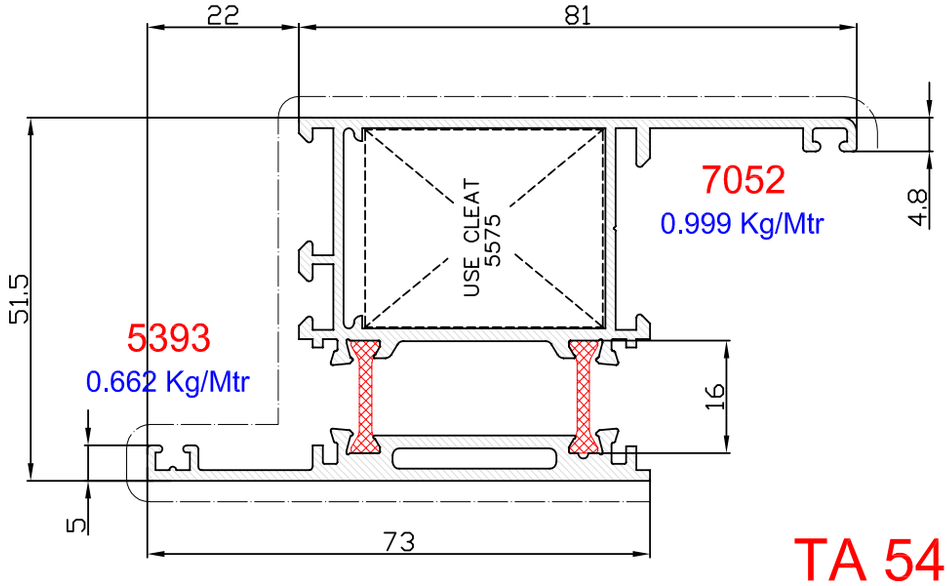
TA 660
1.888 kg/m

CASEMENT THERMAL BREAK
HINGED WINDOWS AND DOORS SECTIONS

ECO - 500



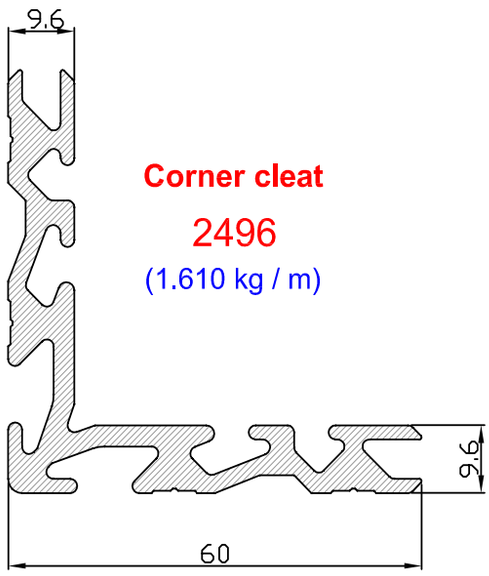
TA 546
1.333 Kg/m



TA 547
1.756 Kg/m

CASEMENT THERMAL BREAK
HINGED WINDOWS AND DOORS SECTIONS

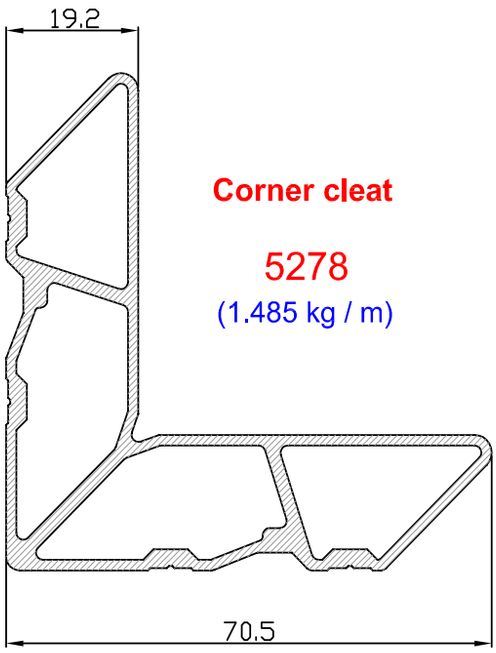
ECO - 500



Corner cleat

2496

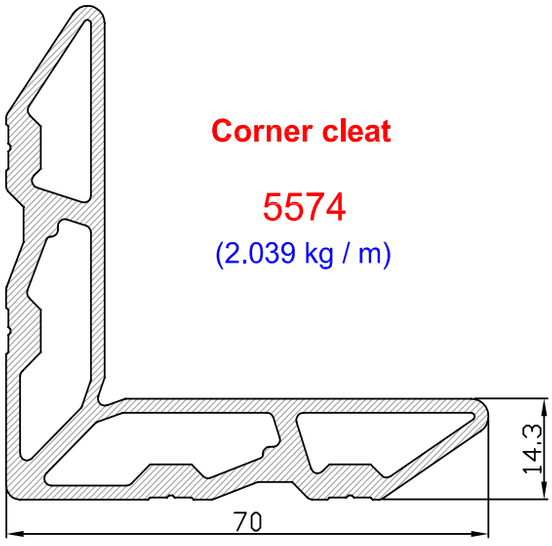
(1.610 kg / m)



Corner cleat

5278

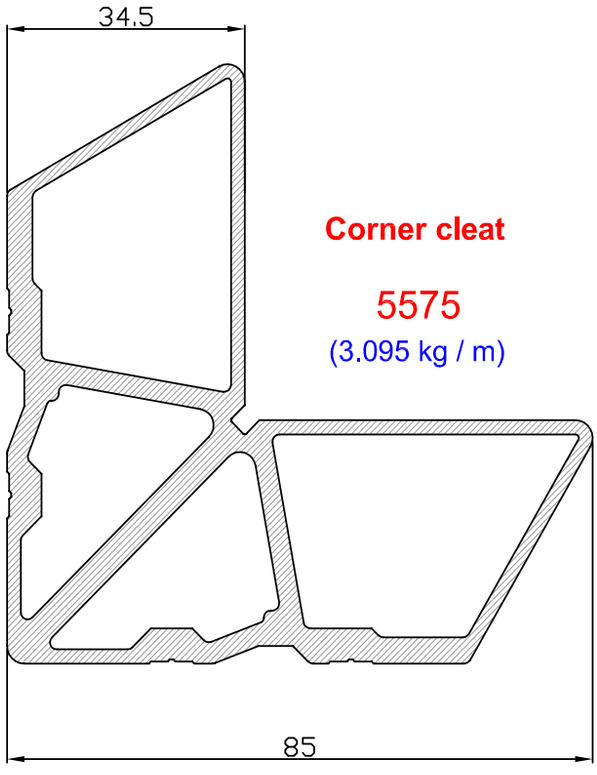
(1.485 kg / m)



Corner cleat

5574

(2.039 kg / m)



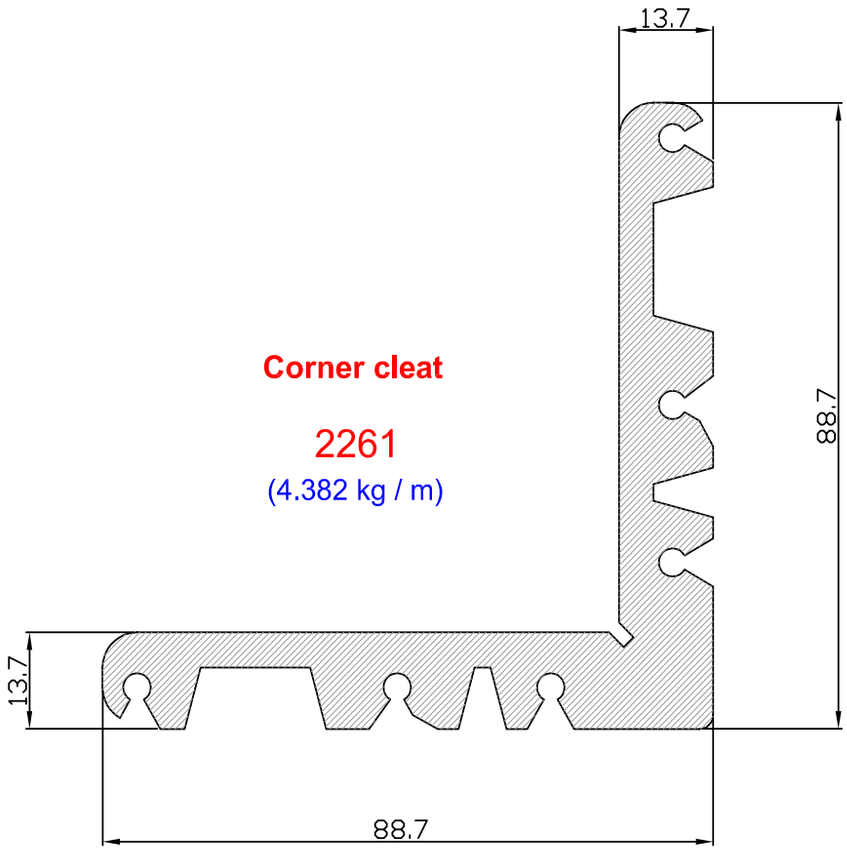
Corner cleat

5575

(3.095 kg / m)

CASEMENT THERMAL BREAK
HINGED WINDOWS AND DOORS SECTIONS

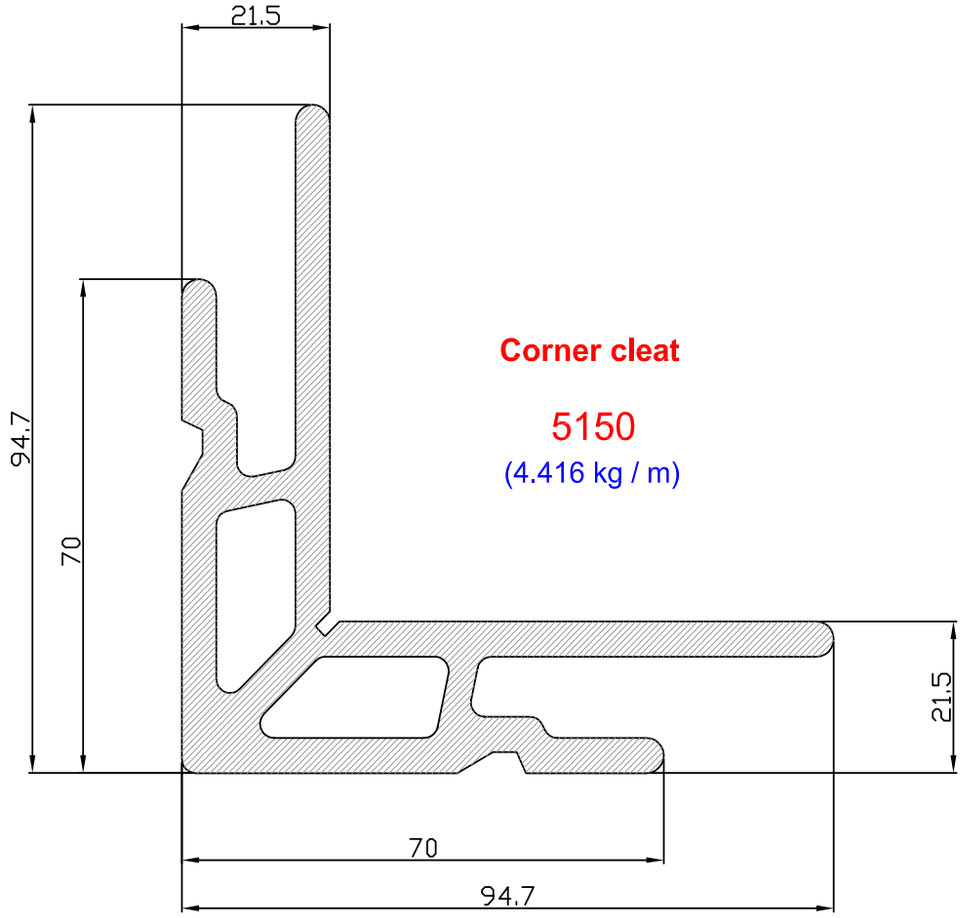
ECO - 500



Corner cleat

2261

(4.382 kg / m)



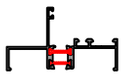
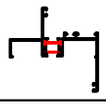
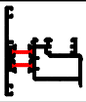
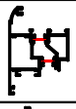
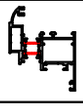
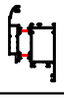
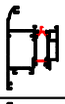
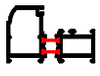
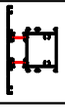
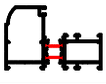
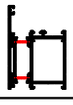
Corner cleat

5150

(4.416 kg / m)

THERMAL BREAK CASEMENT SERIES
SECTIONS MOMENT OF INERTIA

ECO - 500

Y X X' Y'	Sec. No.	Ixx' (CM⁴)	Iyy' (CM⁴)		Y X X' Y'	Sec. No.	Ixx' (CM⁴)	Iyy' (CM⁴)	
	TA 516	09.23	15.09			TA 542	03.11	17.48	
	TA 517	86.07	27.84			TA 543	08.69	24.54	
	TA 518	07.40	16.39			TA 544	05.51	12.14	
	TA 520	23.37	31.91			TA 545	21.62	23.56	
	TA 523	07.53	16.96			TA 546	11.79	16.55	
	TA 524	22.23	13.47			TA 547	31.18	23.52	
	TA 525	32.99	28.55			TA 650	18.16	30.61	
	TA 526	31.06	28.41			TA 660	14.21	42.96	
	TA 529	20.49	18.66						
	TA 532	11.61	32.42						
	TA 533	19.26	18.37						
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	TA 536	18.44	23.72						
	TA 540	02.87	08.61						
	TA 541	08.49	12.93