

# Vortex 70mm

07-2015-V.02

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## Vortex 70mm

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# GULF EXTRUSIONS

Gulf Extrusions Co. LLC, the flagship company of the Al Ghurair Group of Companies, was founded in 1978, Dubai, UAE where it has over the years earned the reputation known as one of the most innovative and reliable companies in the Middle East.

Located close to its raw material supplier Dubai Aluminium Company Ltd (DUBAL), the world's largest single smelter site, Gulf Extrusions has become one of the largest extrusion plants in the region.

Gulf Extrusions quality products can be seen in many of today's progressive structures. The company was formed with the sole purpose to meet the increasing demands for aluminium extrusions in domestic, regional and international markets.

Gulf Extrusions six presses and highly skilled workforce are able to produce 65,000 metric tonnes per annum with a rated capacity of 24,000 tonnes for powder coated finish, 6,000 tonnes for anodized finish and can offer more than 10,000 profile designs. These extrusions cover numerous industries ranging from architectural to transportation, engineering to structural sections, components for household items, HVAC and customized products.

During the progressive stages of Gulf Extrusions, from its inception to expansion, the company not only has acquired a majority share in the local market, it has also made its presence felt globally throughout the GCC countries, Indian sub -continent, South East Asia, Australia, Africa, Europe and Canada.

Our commitment and utmost priority is to provide customers with the finest quality of aluminium extrusions.

Gulf Extrusions looks ahead to inevitable challenges and product advancements of the new era.

Quality is an inseparable element of all activities carried out at Gulf Extrusions. Gulf Extrusions is dedicated to respond and deliver on time, high quality, tailor-made and cost effective products. The management and staff are committed to implement a comprehensive and integrated Quality Management System in accordance with the International Quality Standards of ISO 9001 and ISO 14001.

### **INTERNATIONAL STANDARD COMPLIANCE**

#### Extrusions Dimensions Tolerances:

- BS EN 755 - 9:2008
- BS EN 12020 - 2:2008
- DIN 1748, DIN 17615
- ASTM B221

#### Powder Coated Finish:

- BS:6496 Clause: 10.4, 10.5, 10.6, 10.7 & 10.8
- ISO 2360 / 2813 / 2409 / 2931
- Minimum Film Thickness – 60 Microns

#### Anodizing Finish:

- BS EN 12373-1 2001 Clause 7 (BS:6161 Part 6)
- BS:3987 Clause 2, 3, 5, 6
- Appendix- A, B, C, D, E, F, G, H, J, K, L Minimum Film Thickness- 16 Microns



### **PRODUCT QUALITY CERTIFICATES**



#### Qualicoat (European Powder Coaters Association):

- A quality label for coating on metal for Architectural Applications
- A product license under the control of EWAA (European Wrought Aluminium Association) in Zurich Switzerland



#### Qualanod (European Anodizers Association):

- A quality label organization to guarantee high quality Aluminium Anodizing.
- A product license under the control of EWAA (European Wrought Aluminum Association) in Zurich Switzerland



- SASO



- ESMA



#### Management:

- ISO 9001 (Quality Management System)



- ISO/TS 16949:2009 (Management System)



#### Environment:

- ISO 14001 (Environment Management System)



#### Membership in International Organization:

- AAC member (Aluminium Anodizers Council - USA)
- AEC member (Aluminum Extruders Council - USA)
- DIN EN 15088



**CHEMICAL COMPOSITIONS**

**ALLOY 6005A**

Element	Minimum	Maximum
Si	0.50	0.90
Fe	-	0.35
Cu	-	0.30
Mn	-	0.50
Mg	0.40	0.70
Cr	-	0.30
Zn	-	0.20
Ti	-	0.10
Other Each	-	0.05
Other Total	-	0.15
Aluminium	Remainder	

**ALLOY 6060**

Element	Minimum	Maximum
Si	0.30	0.60
Fe	0.10	0.30
Cu	-	0.10
Mn	-	0.10
Mg	0.35	0.60
Cr	-	0.05
Zn	-	0.15
Ti	-	0.10
Other Each	-	0.05
Other Total	-	0.15
Aluminium	Remainder	

**ALLOY 6063**

Element	Minimum	Maximum
Si	0.20	0.60
Fe	-	0.35
Cu	-	0.10
Mn	-	0.10
Mg	0.45	0.90
Cr	-	0.10
Zn	-	0.10
Ti	-	0.10
Other Each	-	0.05
Other Total	-	0.15
Aluminium	Remainder	

**ALLOY 6082**

Element	Minimum	Maximum
Si	0.70	1.30
Fe	-	0.50
Cu	-	0.10
Mn	0.40	1.00
Mg	0.60	1.20
Cr	0.04	0.15
Zn	-	0.20
Ti	-	0.10
Other Each	-	0.05
Other Total	-	0.15
Aluminium	Remainder	

**ALLOY 6061**

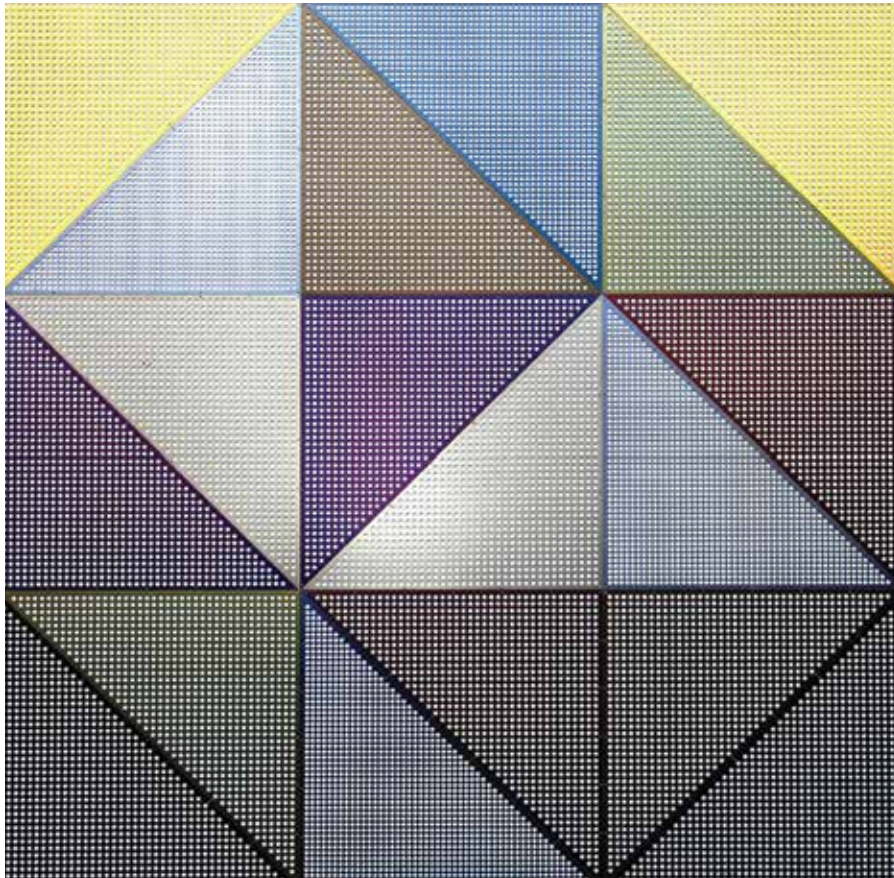
Element	Minimum	Maximum
Si	0.40	0.80
Fe	-	0.70
Cu	0.15	0.40
Mn	-	0.15
Mg	0.8	1.20
Cr	0.04	0.35
Zn	-	0.25
Ti	-	0.15
Other Each	-	0.05
Other Total	-	0.15
Aluminium	Remainder	

**ANODIZING**

A wide range of anodizing treatment options are possible for the aluminium profile sections of this system. The color choices from Gulf Extrusions range from Natural, Gold, and Bronze to Spectro colors (Red, Blue, Green, and Gray).

This surface treatment process involves first pre-treatment with scotch brite brushing for the unfinished profiles, and then subsequently fully immersing the aluminium profiles in an acidic electrolyte solution through which electric current is passed creating an anodic film on the profiles ranging from 5-30MICs.

The process is guaranteed and certified for use by QUALANOD - A quality label Organization to guarantee high quality aluminium anodizing and the company's ISO 9001 certification.





**Authorization to use the quality sign**



This is to certify that

**Gulf Extrusions Co. Ltd**

P.O. Box 5598  
AE – Dubai

**Licence number: 2000**

is authorized to use the quality sign which is shown above according to the REGULATIONS FOR USE OF THE QUALANOD QUALITY LABEL FOR SULPHURIC ACID-BASED ANODIZING OF ALUMINIUM.

**Date of issue of the licence:** 10.03.2000  
**Period of validity of the licence:** until 31.12.2015

Zurich, 17 November 2014

**QUALANOD**

Thomas Becker  
President

**CERTIFICATION BODY**

Josef Schoppig  
AC-Fiduciaire SA



Mailing address:  
QUALANOD, P.O. Box 1507, CH-8027 Zurich  
Domicile:  
QUALANOD c/o AC-Fiduciaire SA, Tödistrasse 47, CH-8002 Zurich

Phone: +41 (0)43 305 09 70  
Fax: +41 (0)43 305 09 98  
E-mail: info@qualanod.net  
Internet: www.qualanod.net

**POWDER COATING**

- Horizontal & Vertical Powder coating lines with an Annual Capacity of 24 000 MT  
Powder Coating BS: 6496 Clause: 10.4, 10.5, 10.6, 10.7, & 10.8  
ISO 2360/2813/2409/2931  
Minimum Film Thickness - 60 Microns

A wide choice of colors for powder coating can be used for the aluminium profile sections.

From Gulf Extrusions the following powder types are available

- Polyester Façade (PE-F)
- Super Durable Façade (SDF) & Hyper Durable Façade (HDF) (Where SDF & HDF are equivalent to Poly-Vinylidene DiFluoride (PVDF) in terms of corrosion performance)
- Anti Bacterial (recommended to be used in Hospitals)
- Anti Static (recommended for laboratories, electronics assembly buildings) and Heat Resistant in nature.

This surface treatment process involves the following pre-treatment

1. Degreasing
2. Washing
3. Etching
4. Washing
5. Chromatising
6. Double washing in dematerialized water

Once completed, powder is applied using an electrostatic spraying process with charged powder particles, followed by curing in an oven under a controlled temperature of 180-200C for paint polymerization where the paint layer is at least 60mic.

This whole process is certified for use from QUALICOAT - A quality label for coating on metal for Architectural Applications.

GUARANTEE PERIOD:  
10 years for PE-F Quality  
25 years for PE-SDF

## Authorization to use the quality sign



This is to certify that

### Gulf Extrusions Co. Ltd

P.O. Box 5598  
AE – Dubai

### Licence number: 1901

is authorized to use the quality sign which is shown above according to the REGULATIONS FOR THE USE OF THE QUALICOAT QUALITY SIGN FOR PAINT, LACQUER AND POWDER COATINGS ON ALUMINIUM FOR ARCHITECTURAL APPLICATIONS.

**Date of issue of the licence:** 15.03.2000  
**Period of validity of the licence:** until 31.12.2015

Zurich, 17 November 2014

**QUALICOAT**

A handwritten signature in blue ink that reads "M. C. Panam".

Mohammed C. Panam  
President

**CERTIFICATION BODY**

A handwritten signature in blue ink that reads "JS".

Josef Schoppig  
AC-Fiduciaire SA



Mailing address:  
QUALICOAT, P.O. Box 1507, CH-8027 Zurich  
Domicile:  
QUALICOAT c/o AC-Fiduciaire SA, Tödistrasse 47, CH-8002 Zurich

Phone: +41 (0)43 305 09 70/79  
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E-mail: [info@qualicoat.net](mailto:info@qualicoat.net)  
Internet: [www.qualicoat.net](http://www.qualicoat.net)

# INTRODUCTION TO THE SYSTEM

## **Vortex 70mm:**

Vortex 70 is a unique curtain wall structure that combines multi-structural grid to create various aspects, starting with four way structural curtain wall systems.

Vortex 70 has proven to be a curtain wall solution perfectly tailored to the Middle East market requirement.

## **FEATURES:**

The “Vortex 70” system consists of 70mm width structure components allowing several external appearances. It is fast to manufacture and to install. With the wide range of profile selection, the system can provide the possibility of large glass panels, maintaining the stiffness and rigidity of the curtain wall structure. Mullions can be reinforced by Aluminium or Steel tubes to enhance the free span area, making it possible for the use in high structures.

Special casements for the “Vortex 70” system have been developed giving two options of cold and thermally insulated profiles. Casements are Italian openings with selected stay arms to ensure the tightness and stability of the opening.

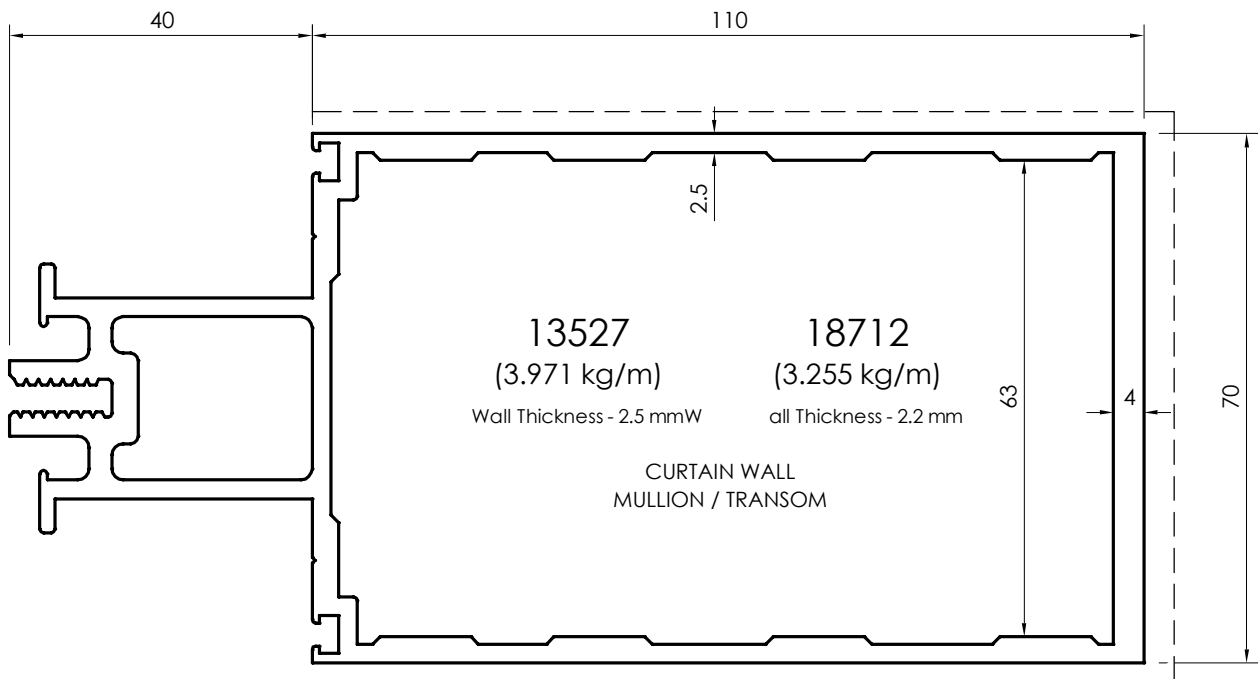
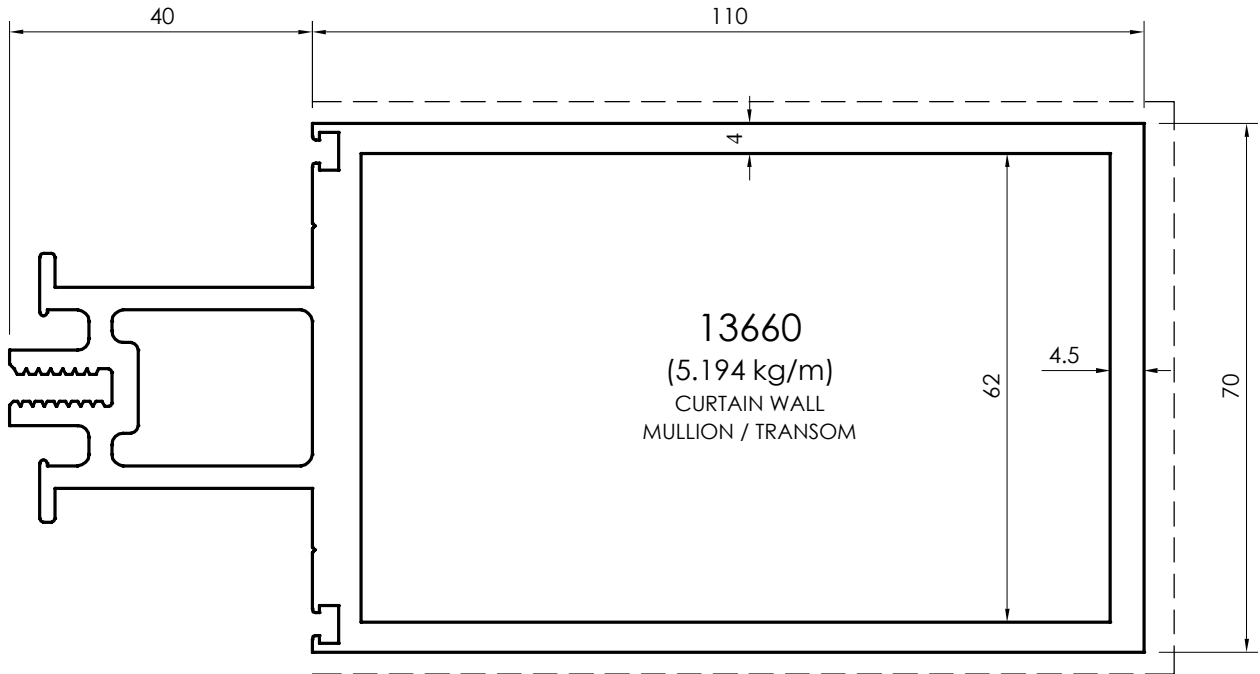
Vortex uses the same structures for multifunctional applications:

Four way structural aspects is a curtain wall aspect which conceals the aluminium structure from the outside making it completely invisible. Concealed openings are designed in order to keep the external appearance of the structure uniform even in the presence of the opening. The four way structural applications is obtained by fixing a glass toggle to the glass holding the panel by a specially designed aluminium spacer, well sealed by a structural sealant to ensure the rigidity of panel. The space between glass panels is sealed by a neutral sealant for aesthetic and water tightness purposes; this application is the most common application in the MENA region.

Glass thickness range between 6mm – 32mm

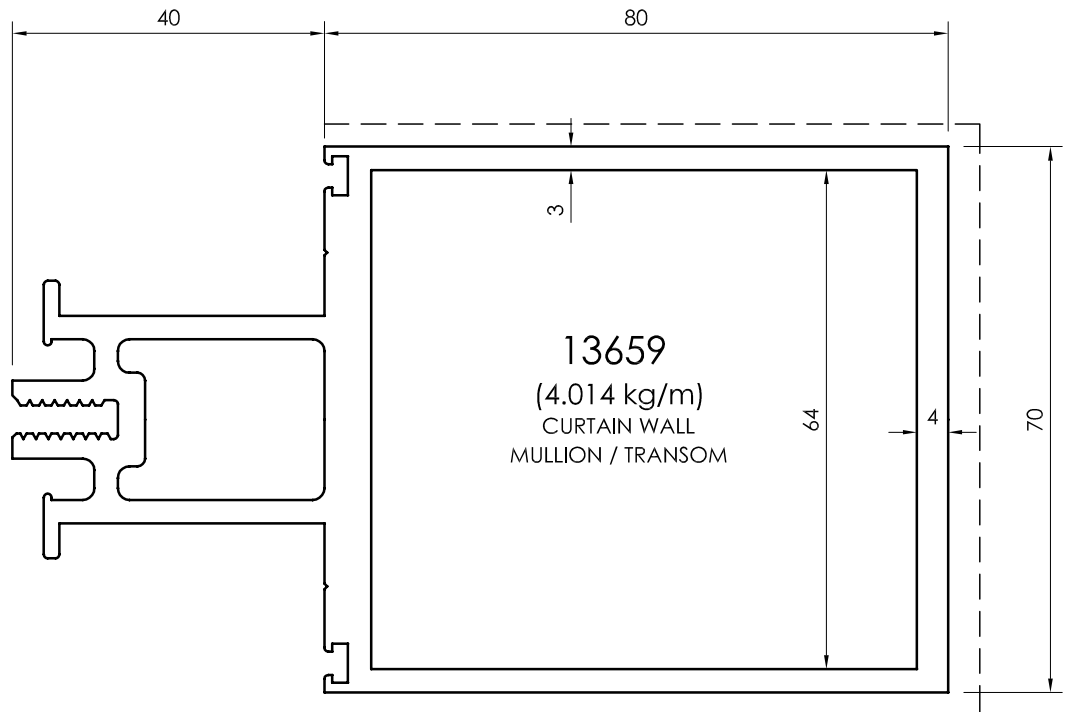
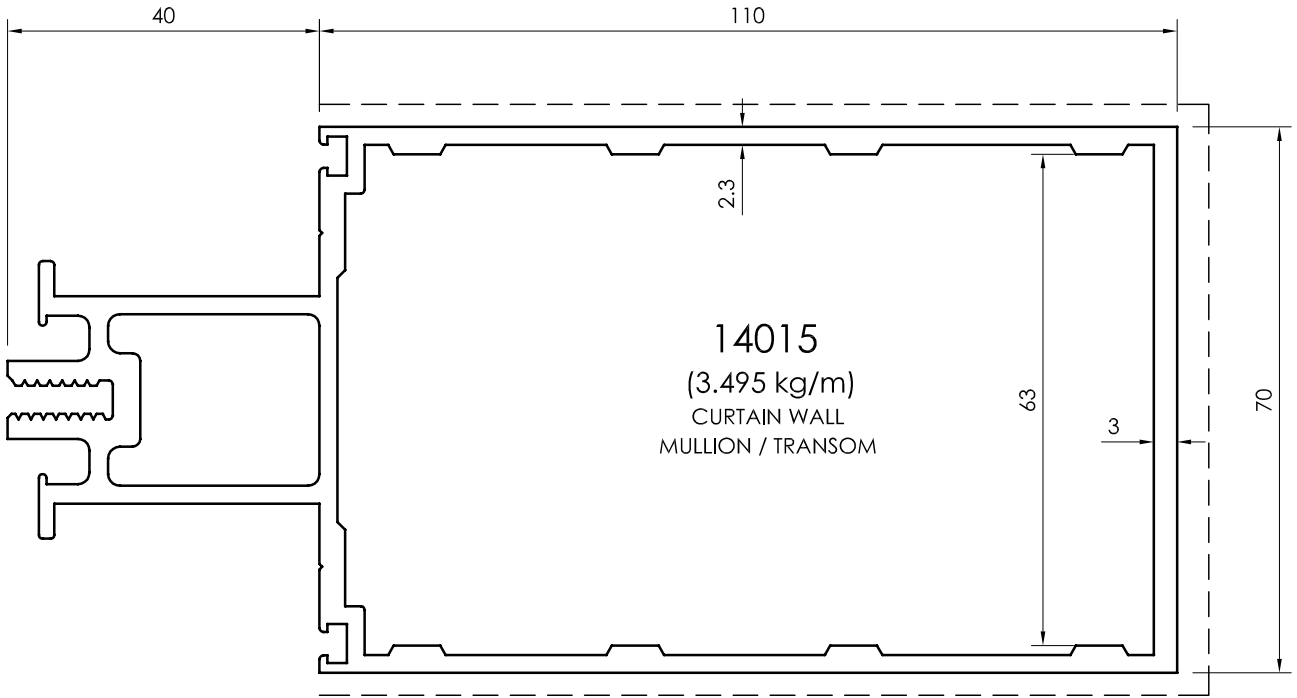
# PROFILES

Mullion / Transom Profiles



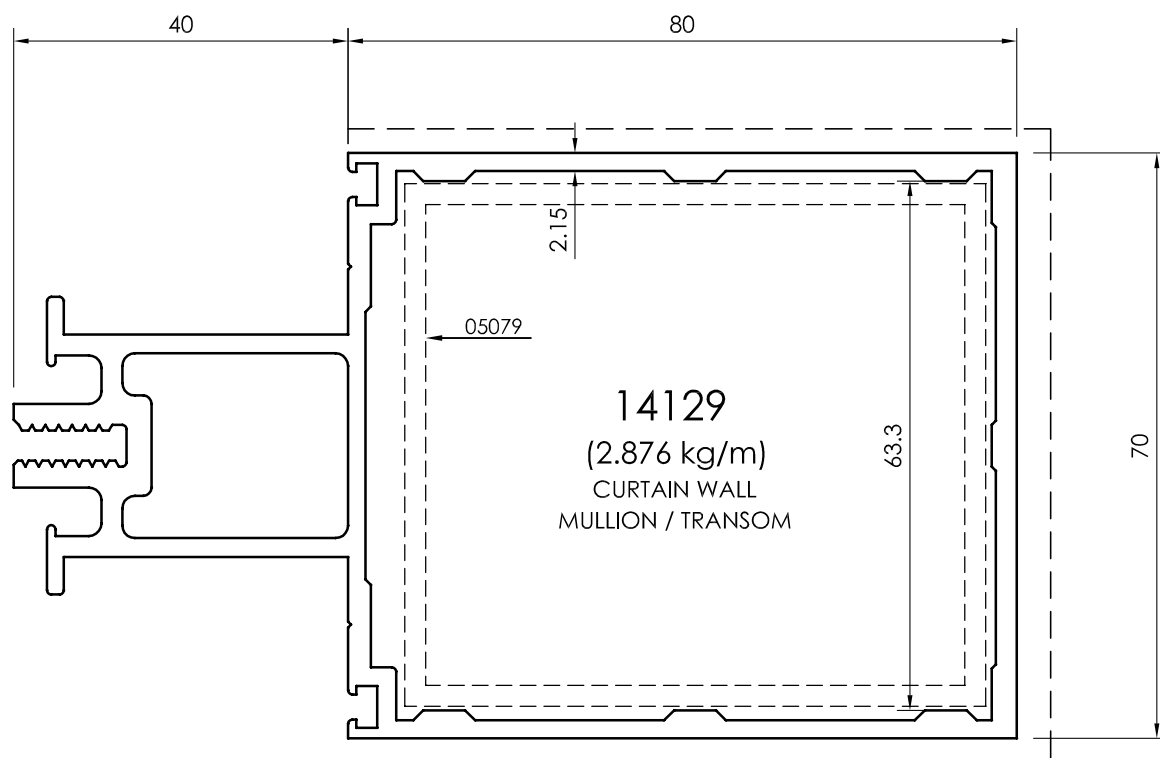
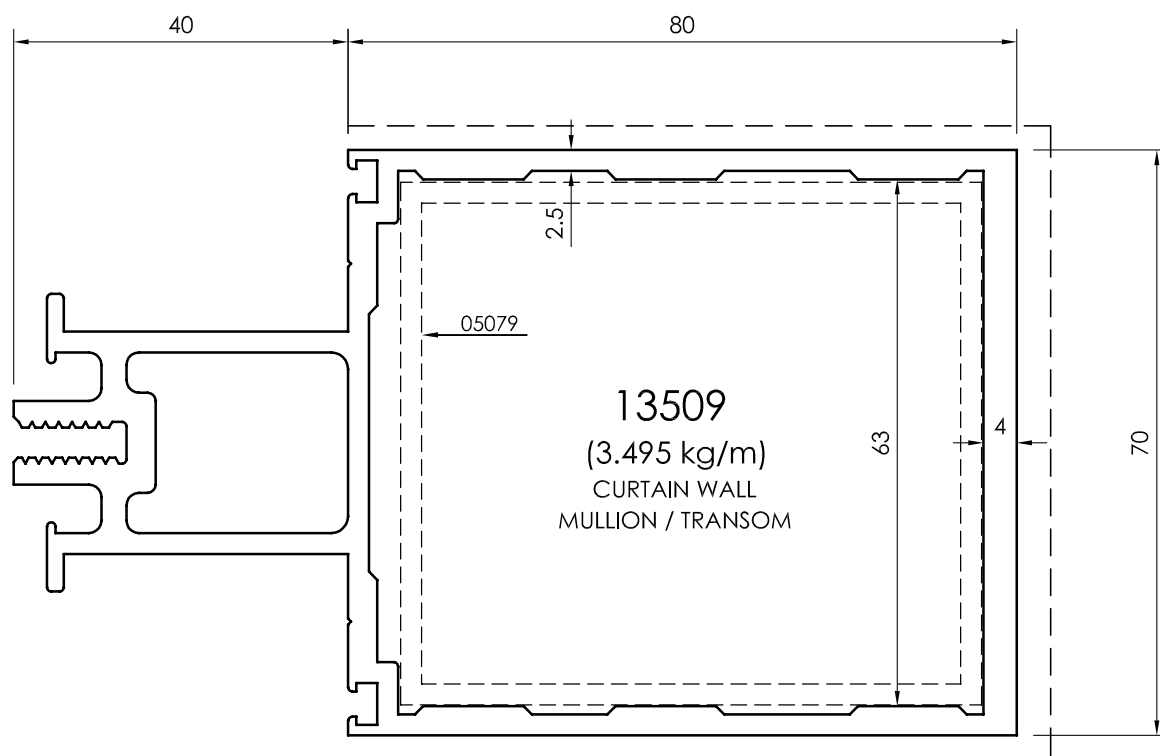
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Visible area\_\_\_\_\_

Mullion / Transom Profiles



All dimensions in mm  
----- Visible area

## Mullion / Transom Profiles

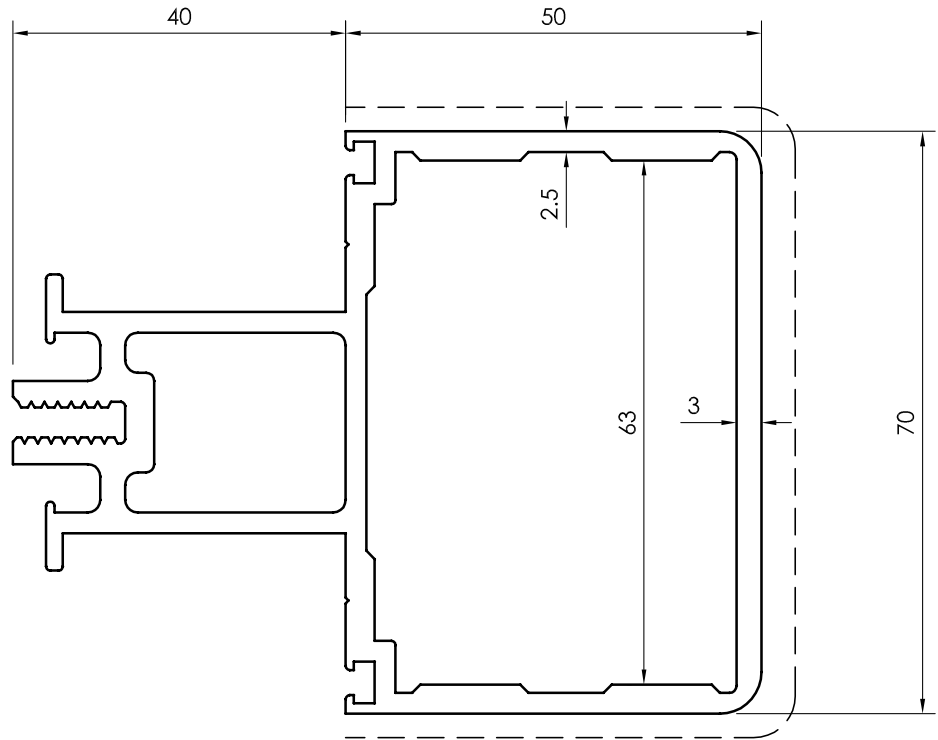


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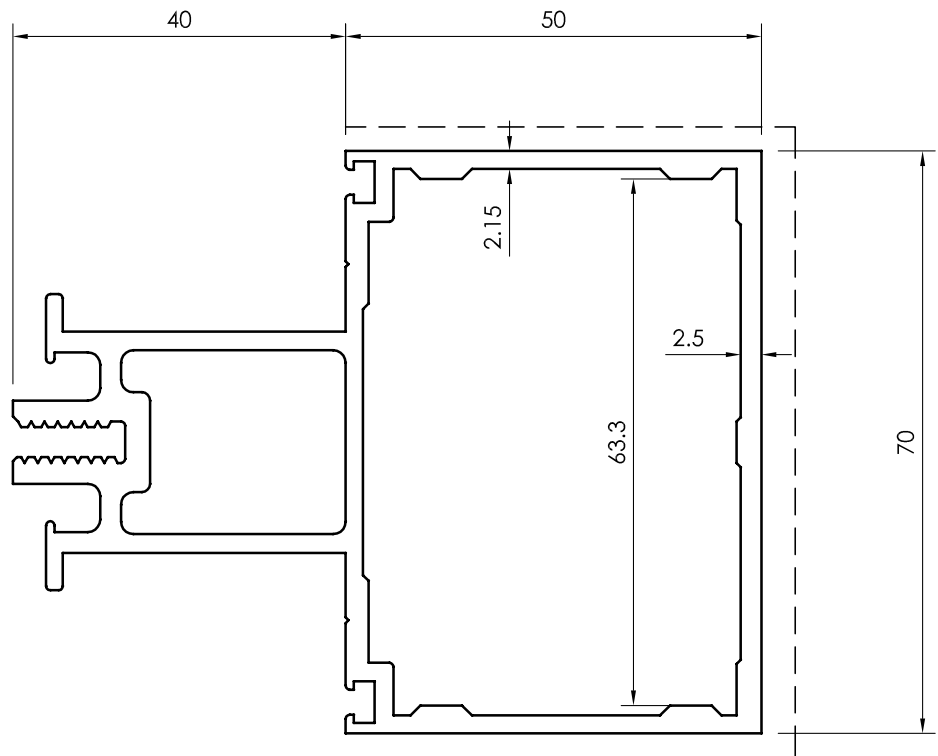


Mullion / Transom Profiles

**14234**  
 (2.817 kg/m)  
 CURTAIN WALL  
 MULLION / TRANSOM



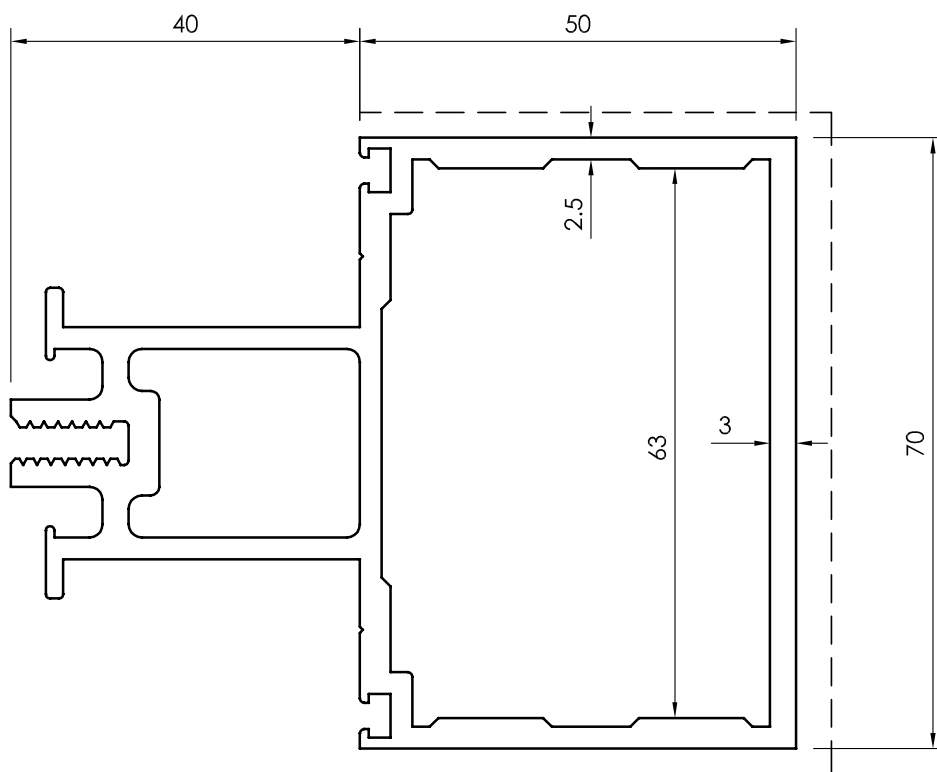
**14128**  
 (2.487 kg/m)  
 CURTAIN WALL  
 MULLION / TRANSOM



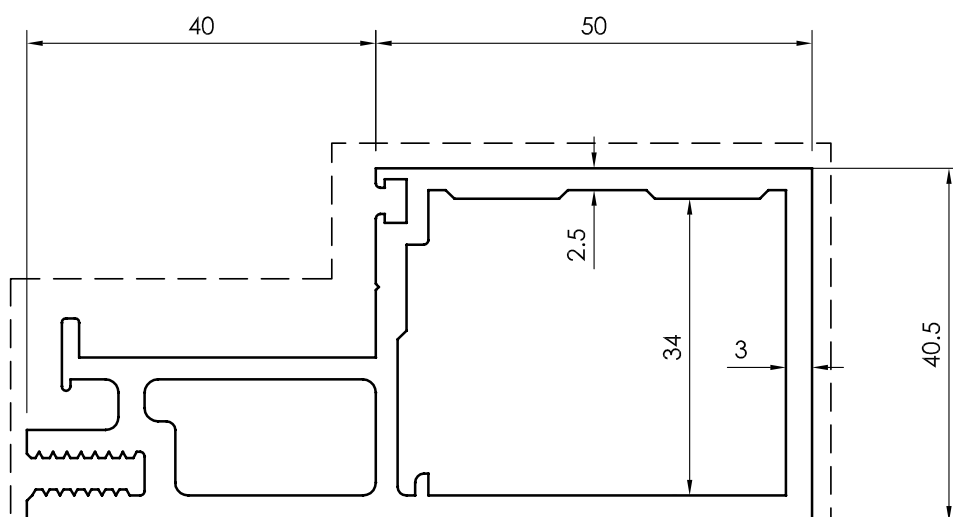
All dimensions in mm  
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## Mullion / Transom Profiles

**13510**  
 (2.845 kg/m)  
 CURTAIN WALL  
 MULLION / TRANSOM

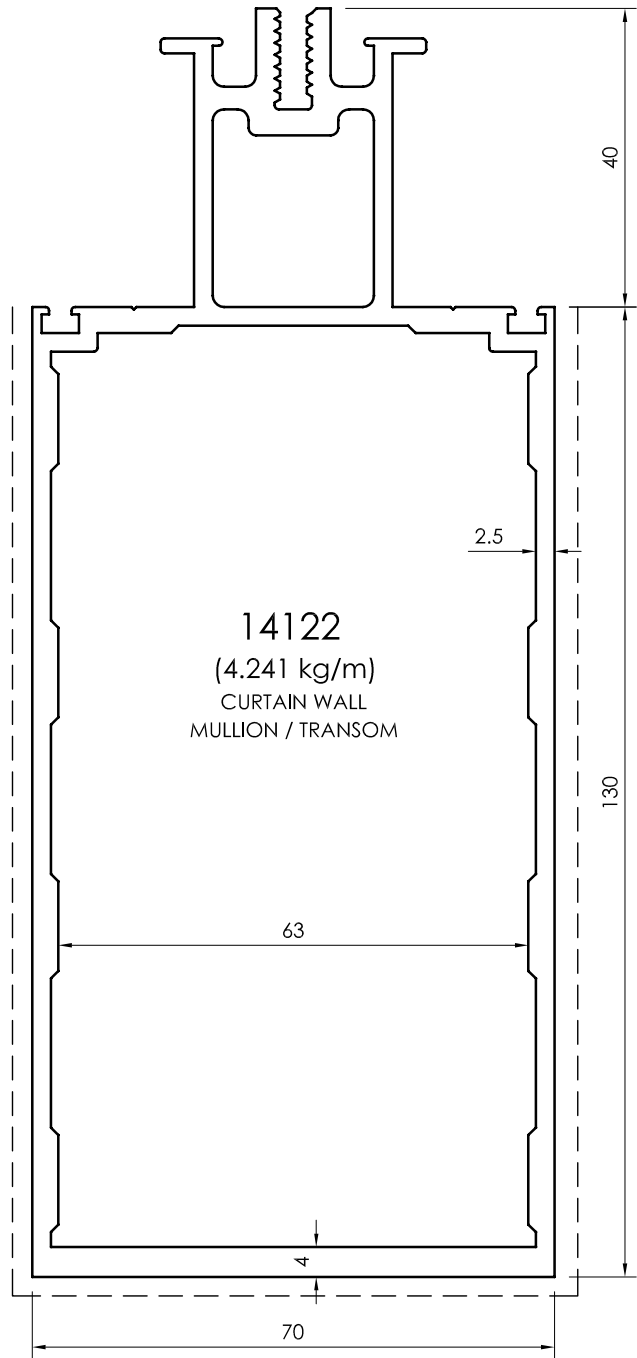
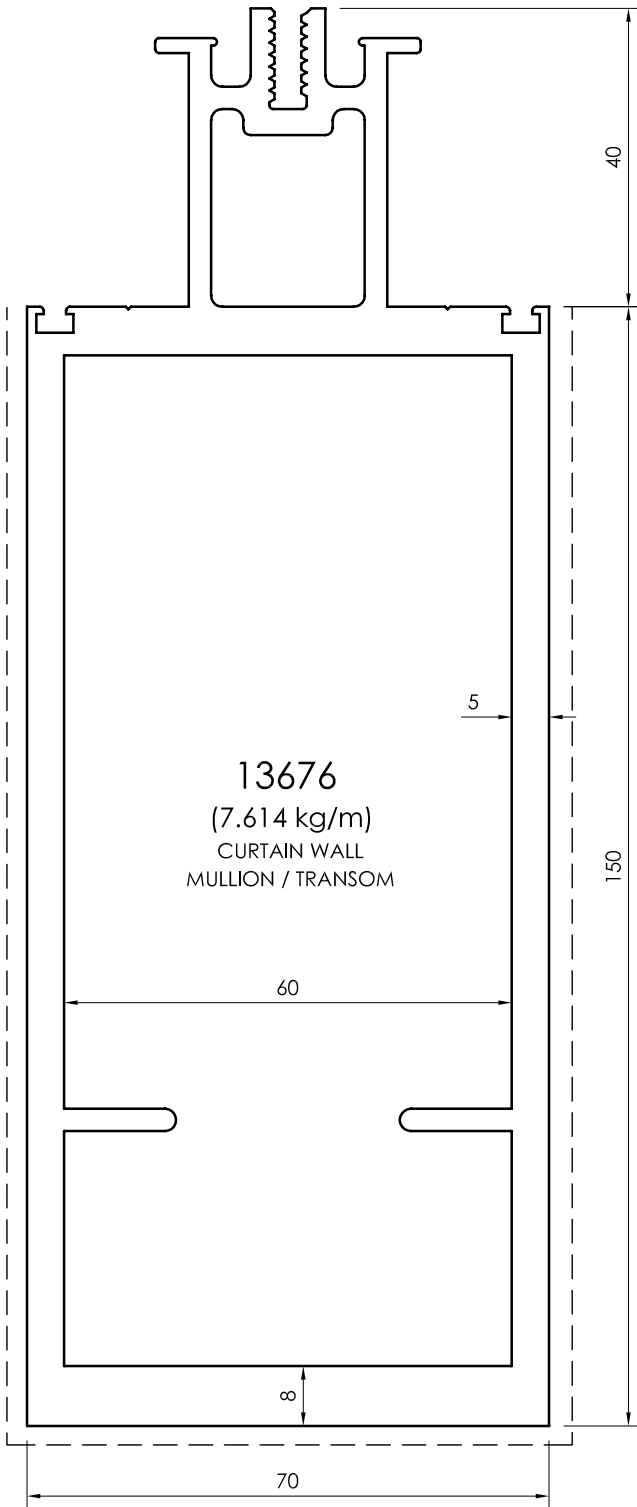


**13621**  
 (2.242 kg/m)  
 CURTAIN WALL  
 END PROFILE



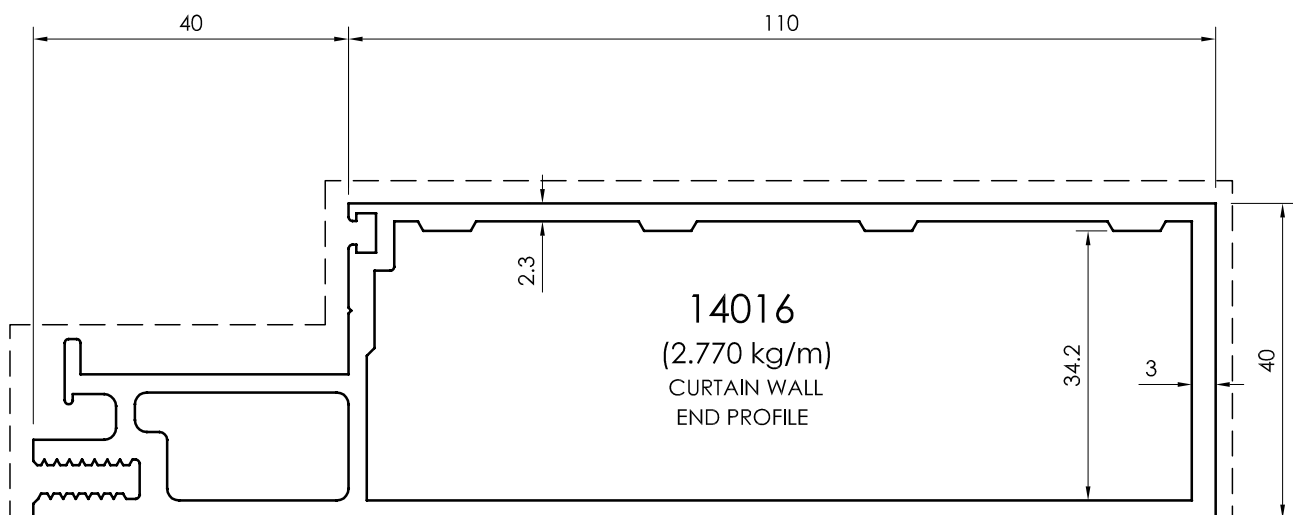
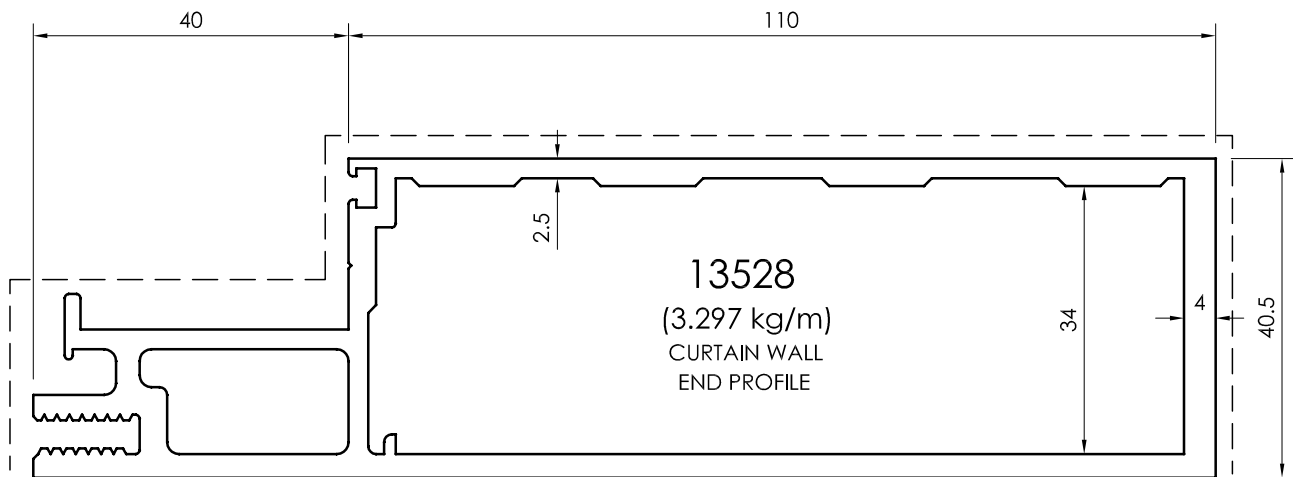
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Mullion / Transom Profiles



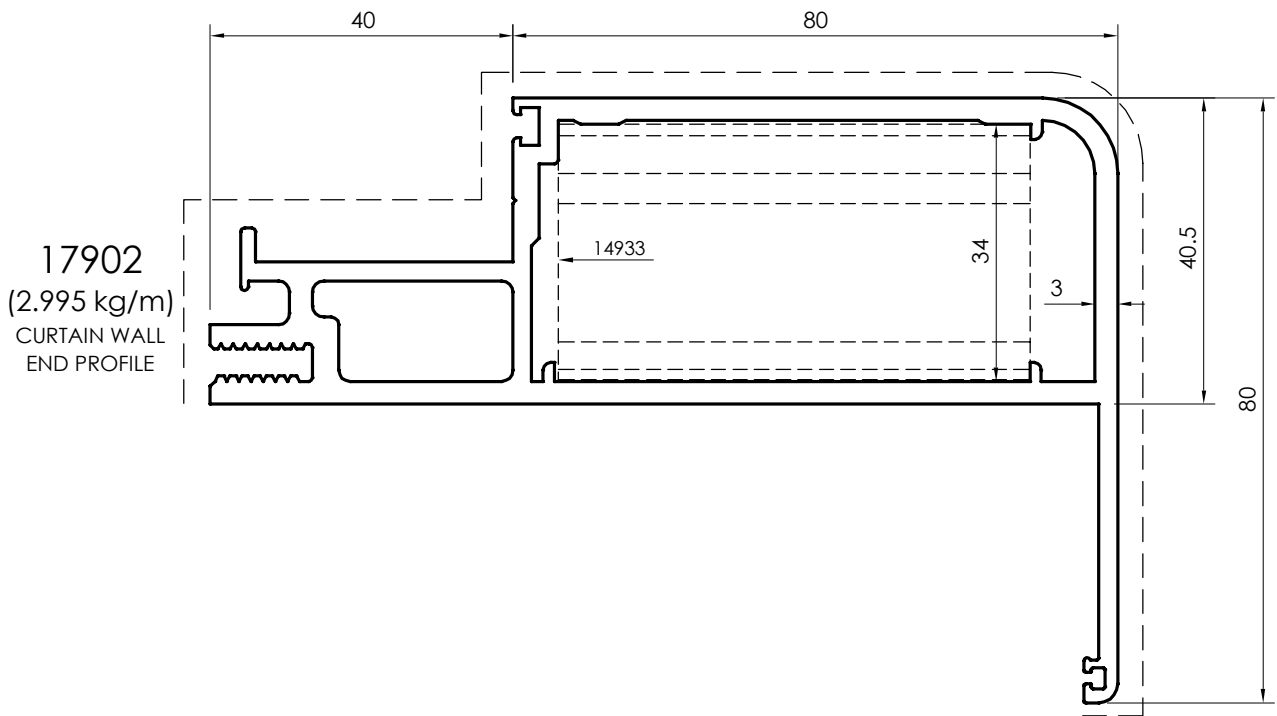
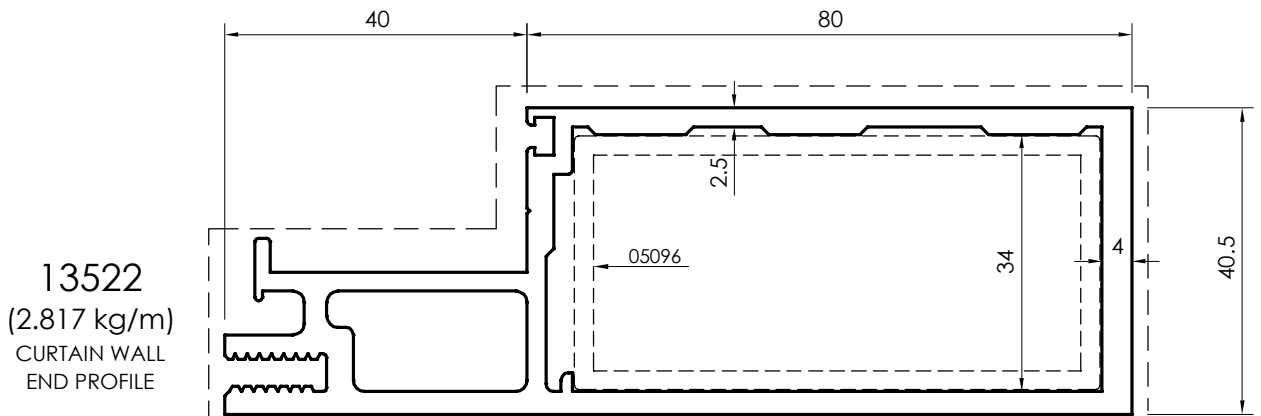
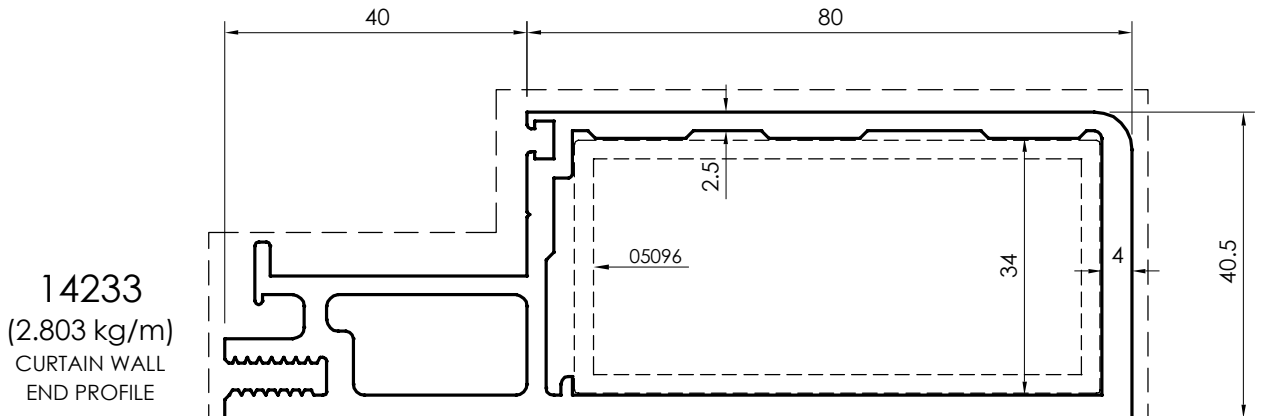
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## Mullion / Transom Profiles



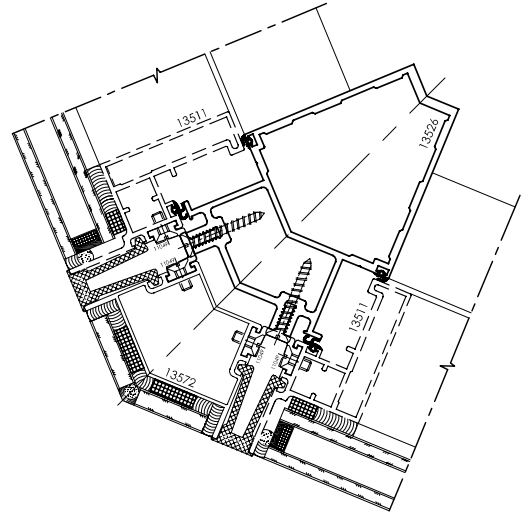
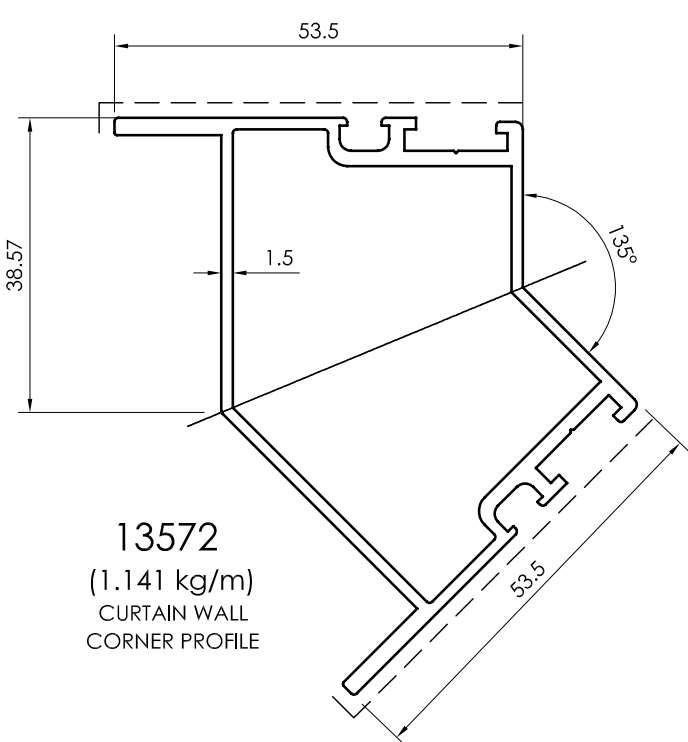
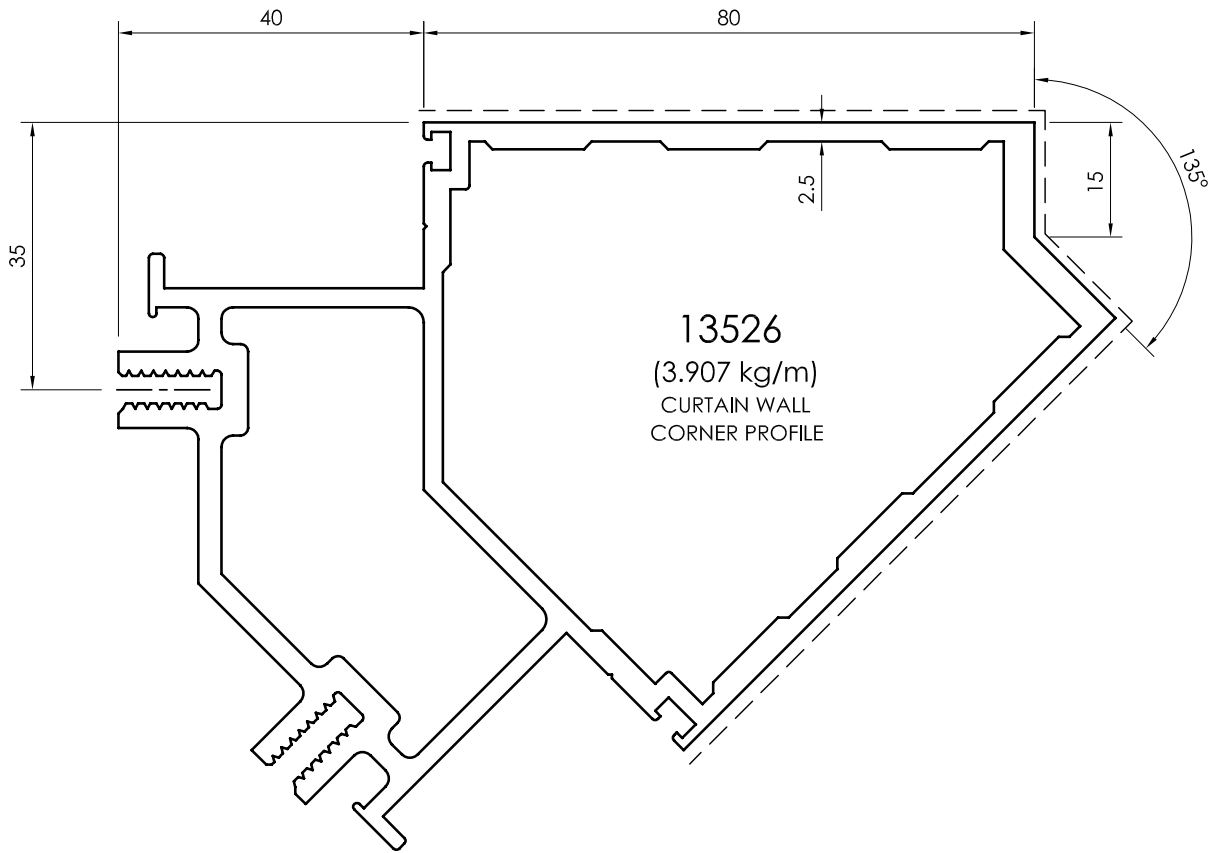
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Mullion / Transom Profiles



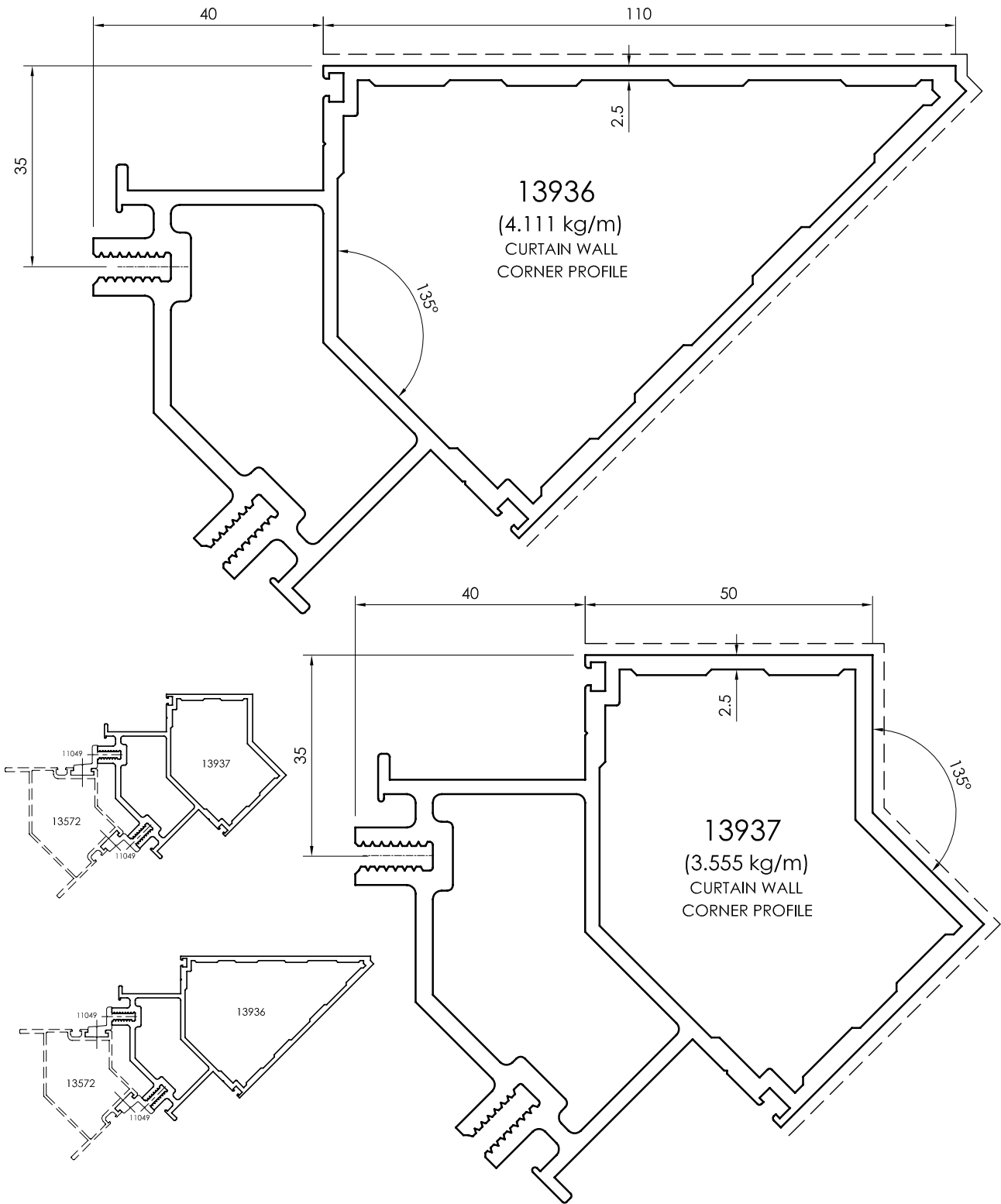
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Corner Profiles



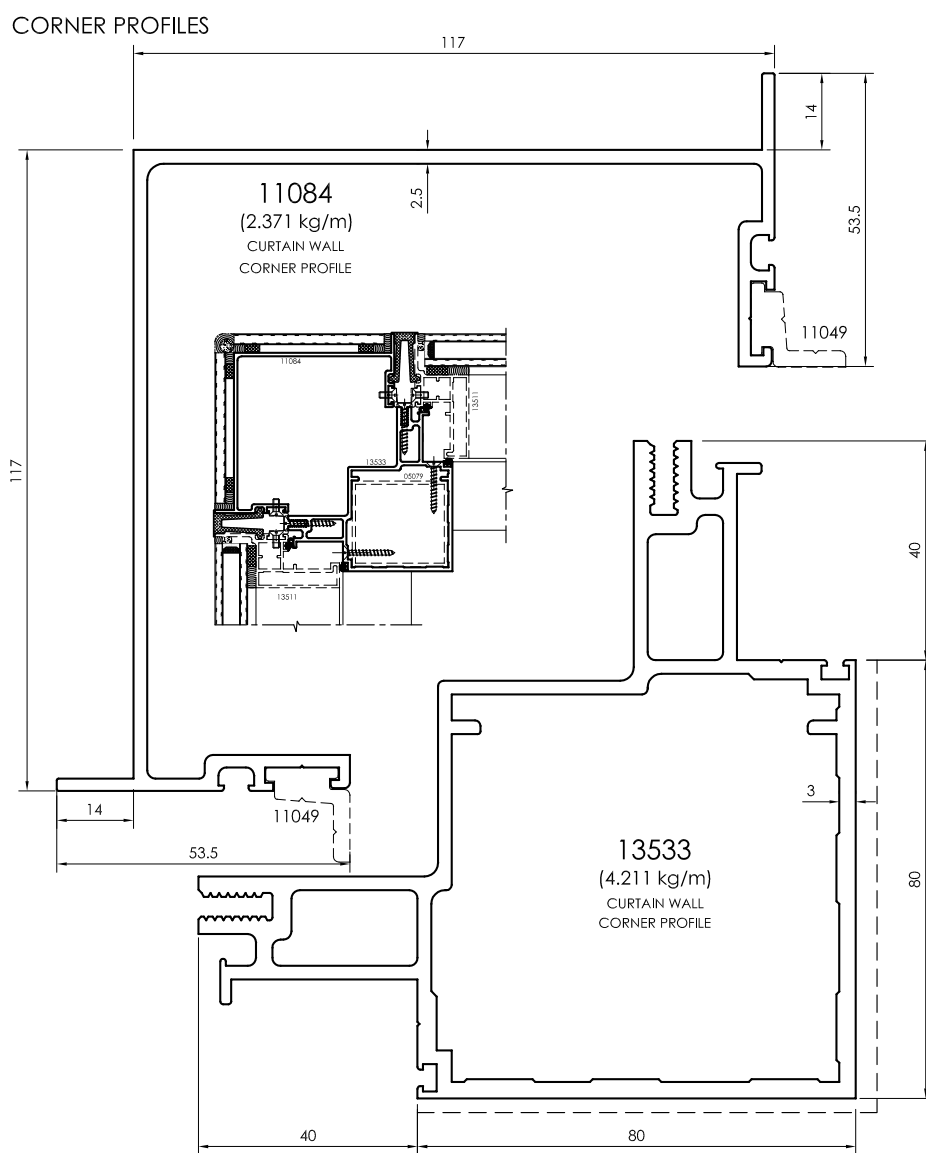
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Corner Profiles



All dimensions in mm  
----- Visible area

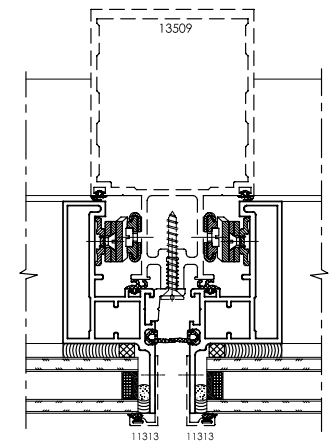
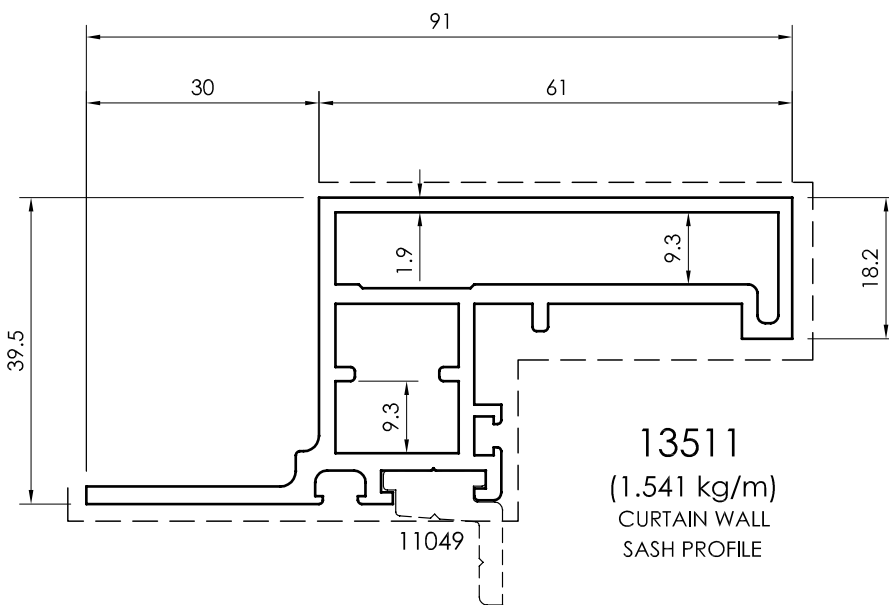
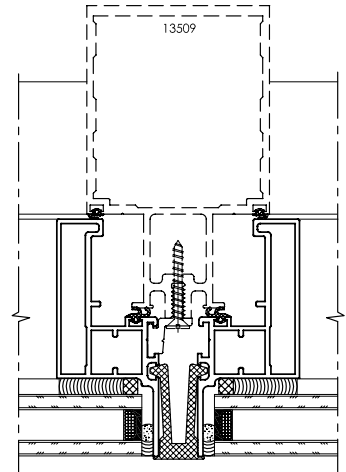
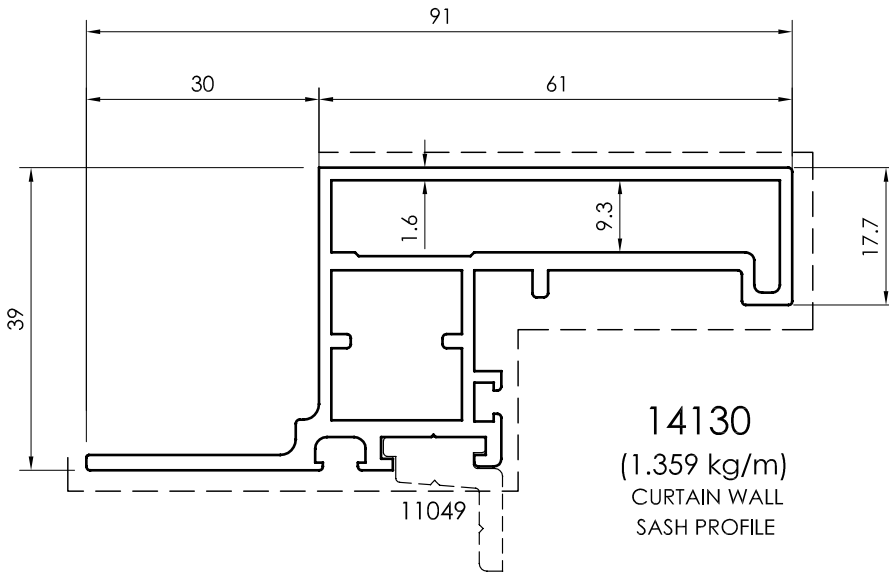
Corner Profiles



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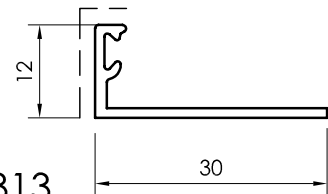
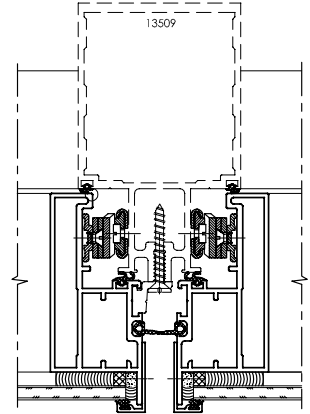
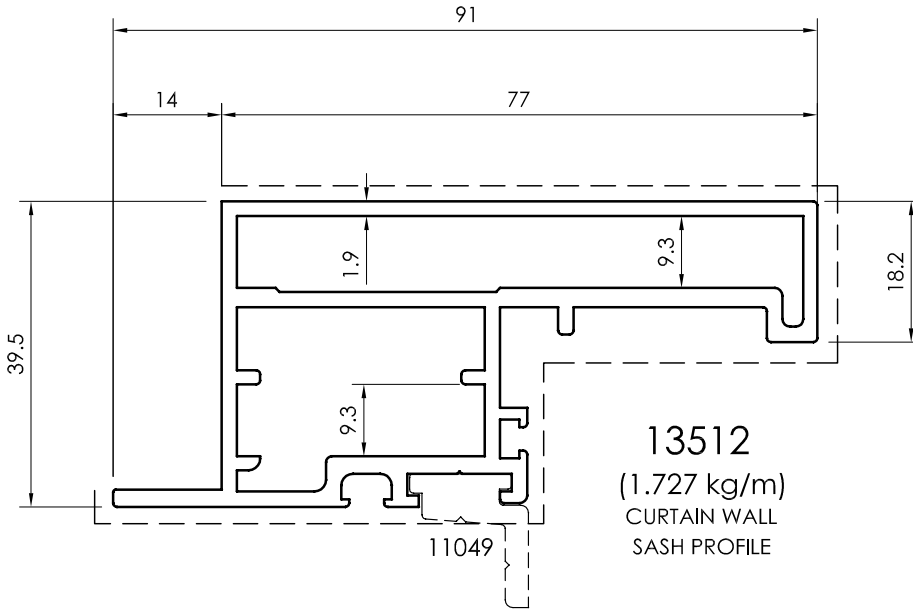
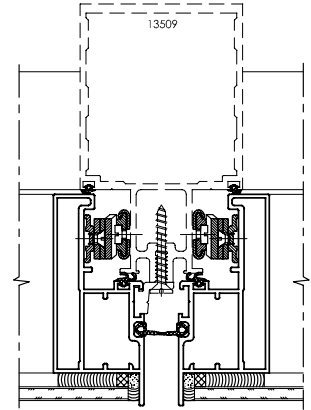
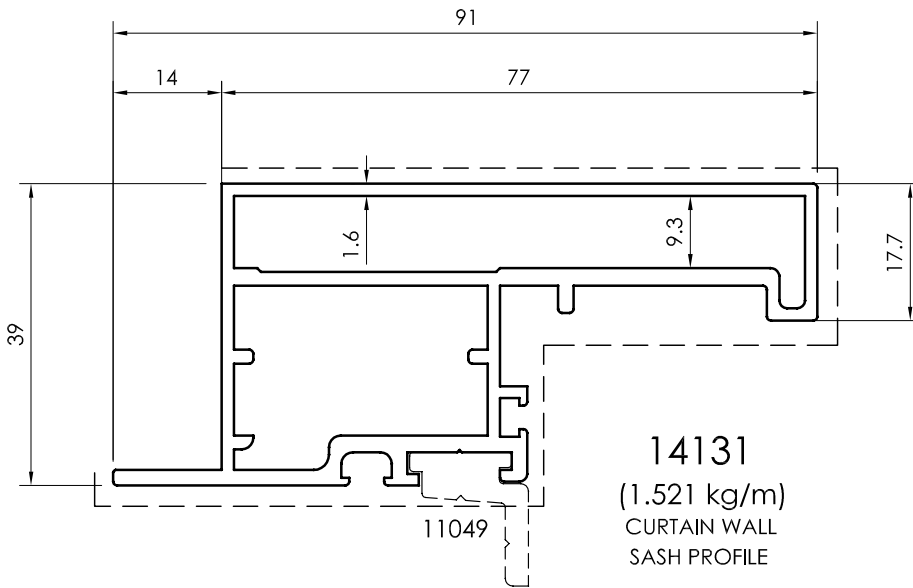


Sash Profiles



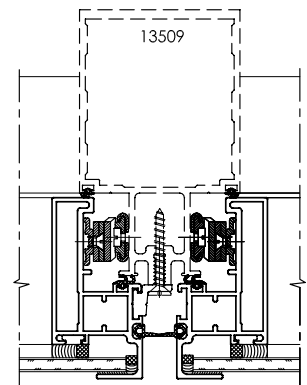
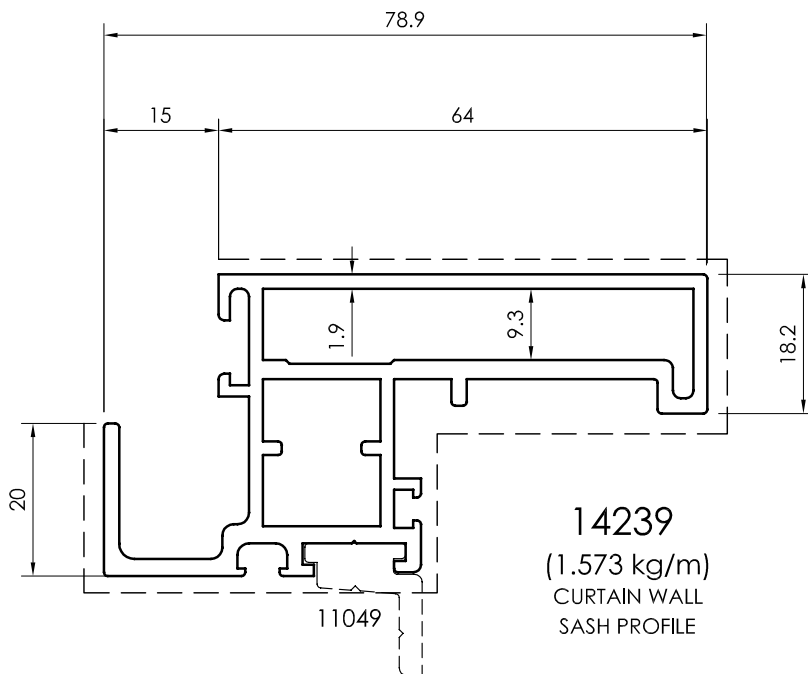
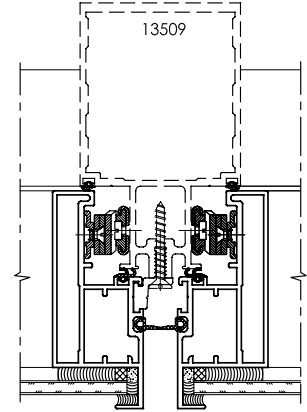
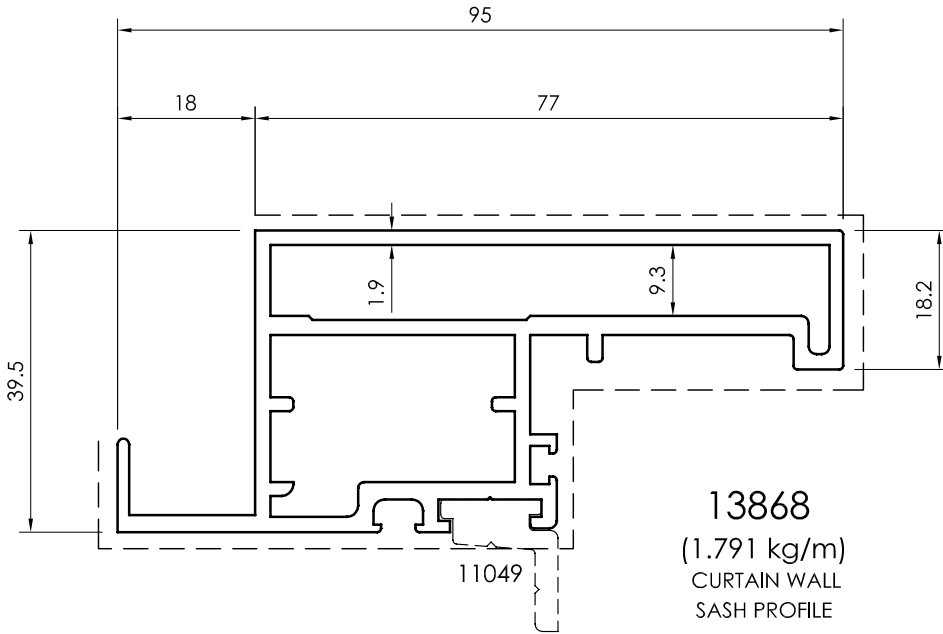
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Sash Profiles



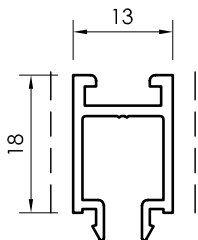
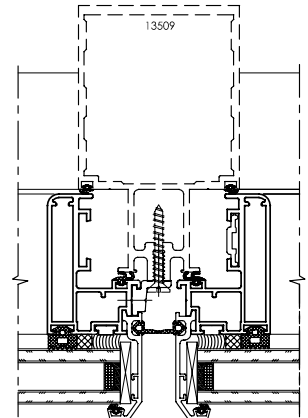
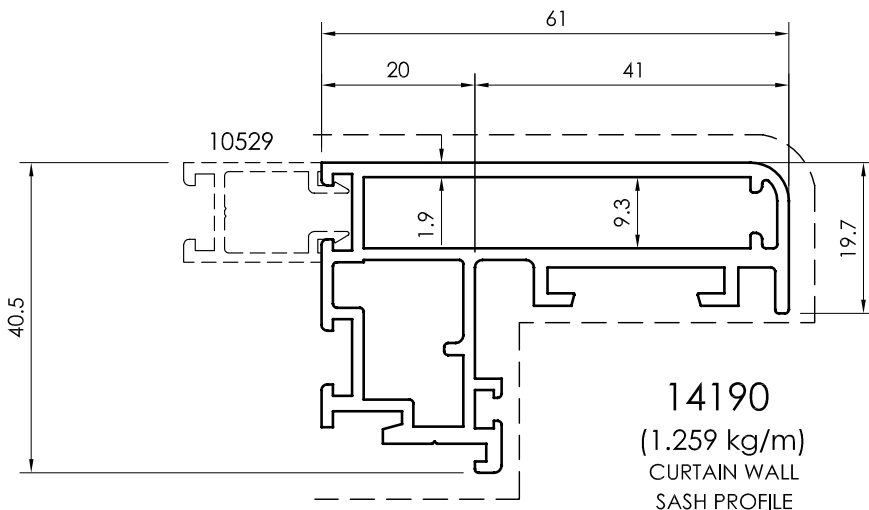
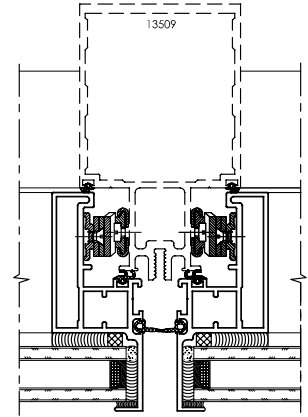
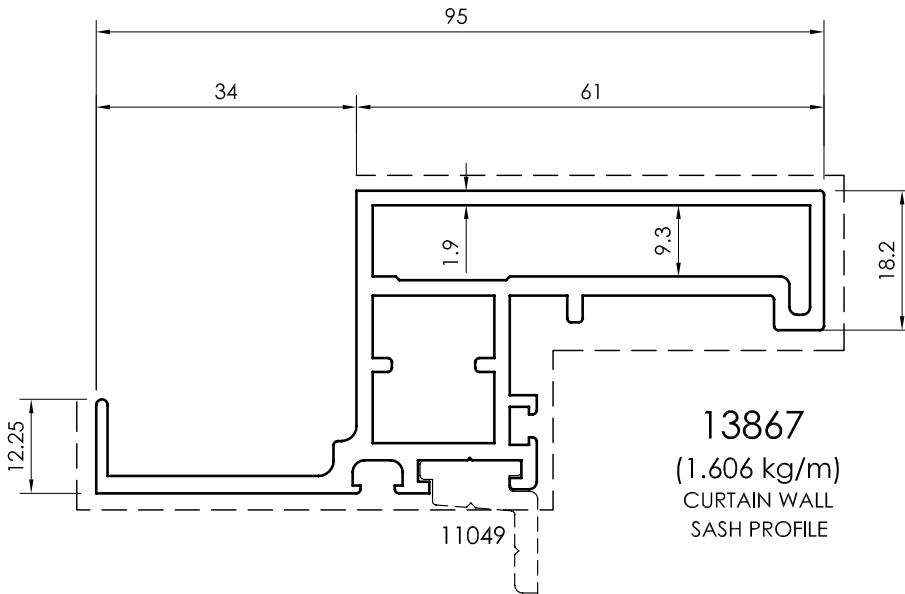
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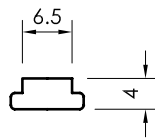


All dimensions in mm  
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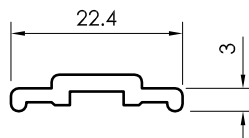
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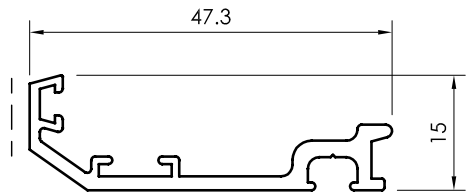
10529  
(0.213 kg/m)  
SINGLE GLASS  
ADAPTOR



11432  
(0.087 kg/m)  
BONDING PROFILE



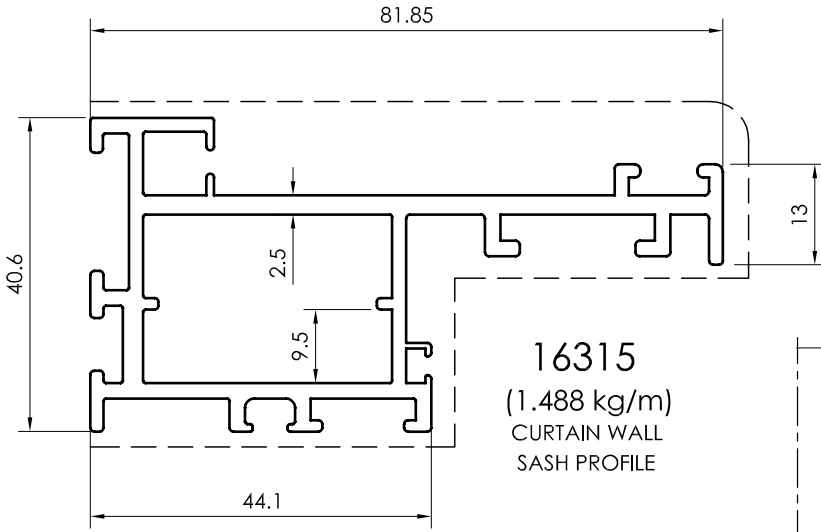
11759  
(0.153 kg/m)  
LOCK PROFILE



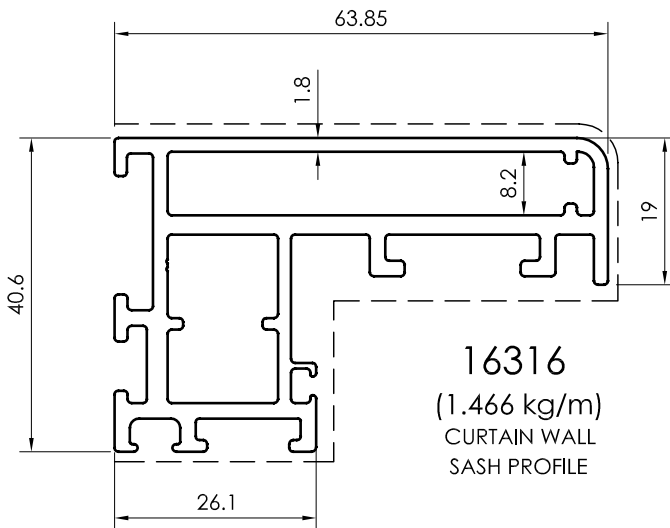
11761  
(0.384 kg/m)  
GLASS HOLDER

All dimensions in mm  
Visible area\_\_\_\_\_

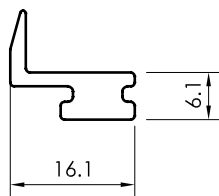
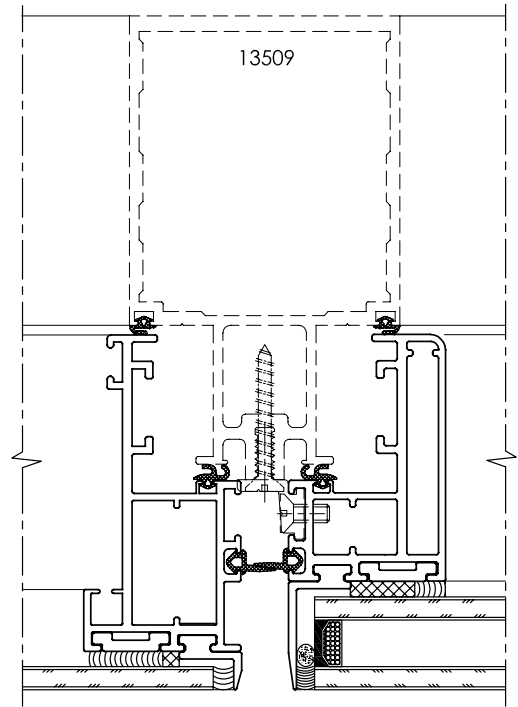
Sash Profiles



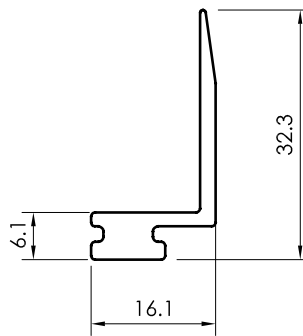
**16315**  
(1.488 kg/m)  
CURTAIN WALL  
SASH PROFILE



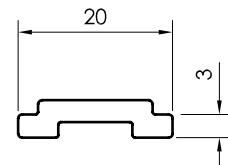
**16316**  
(1.466 kg/m)  
CURTAIN WALL  
SASH PROFILE



**22847**  
(0.206 kg/m)  
GLASS HOLDER



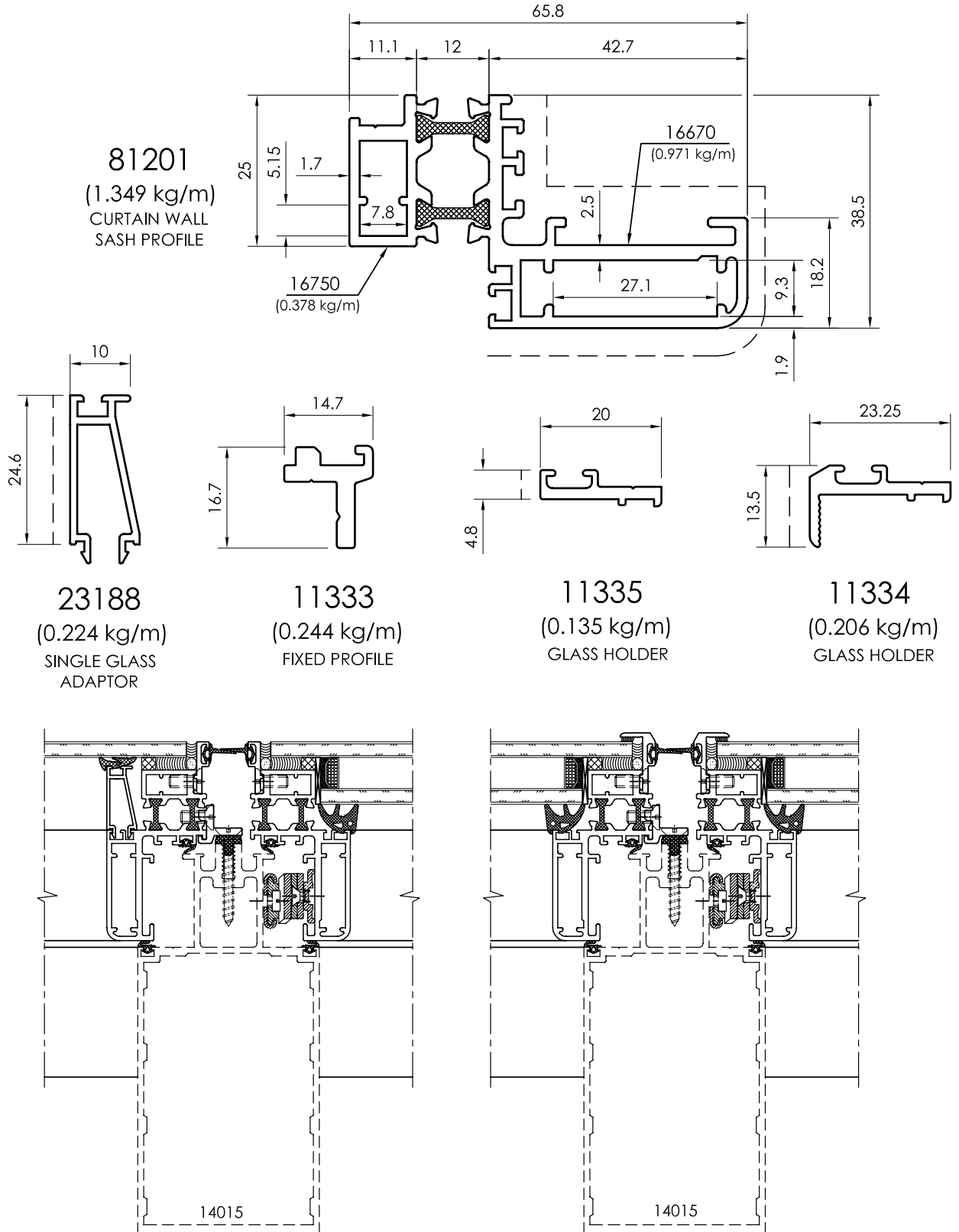
**22848**  
(0.297 kg/m)  
GLASS HOLDER



**22849**  
(0.183 kg/m)  
LOCK PROFILE

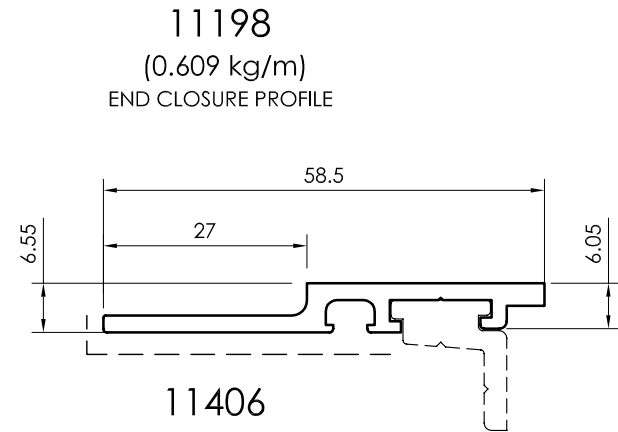
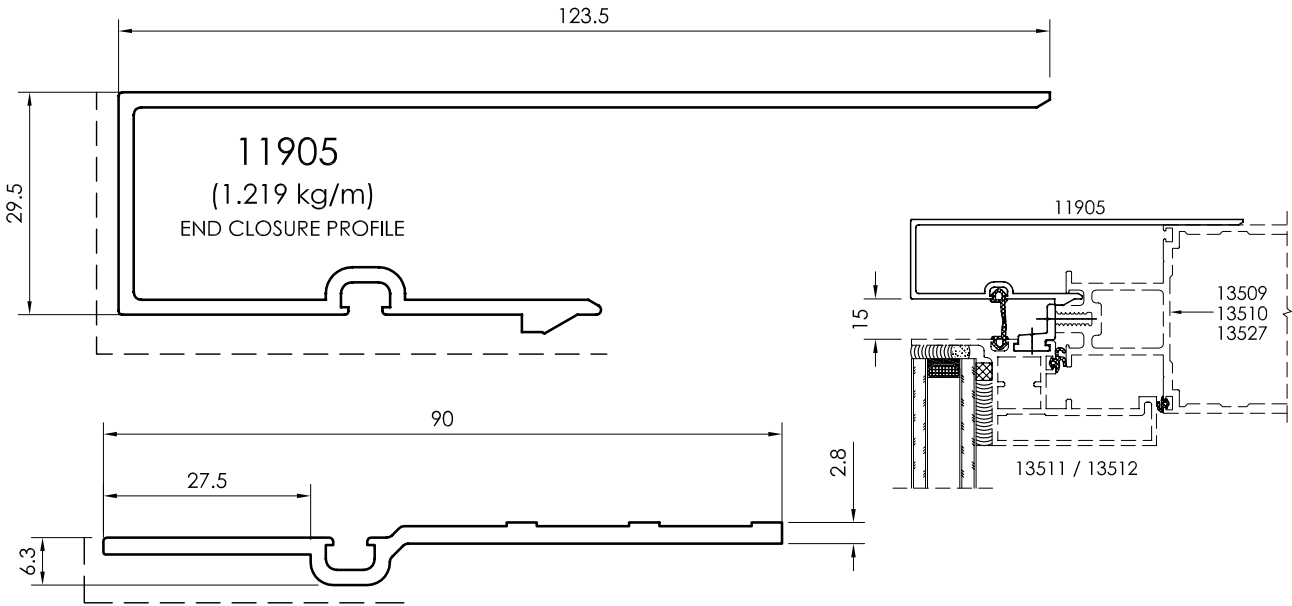
All dimensions in mm  
----- Visible area

**Sash Profiles**  
Thermal Break

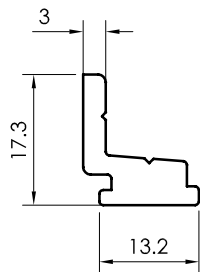


All dimensions in mm  
Visible area\_\_\_\_\_

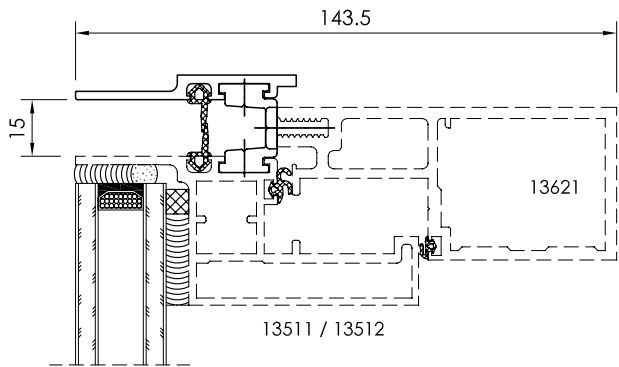
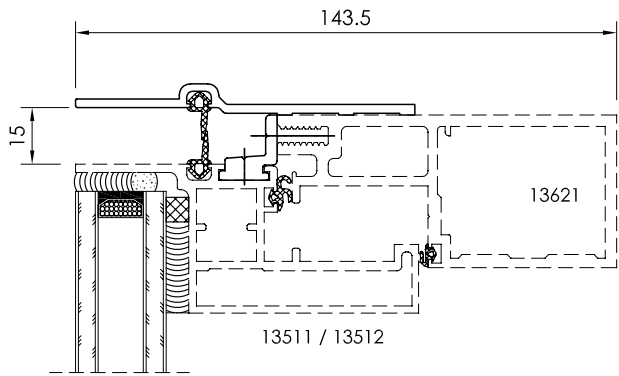
Complementary Profiles



11406  
(0.459 kg/m)  
END CLOSURE PROFILE

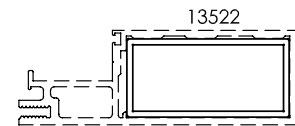
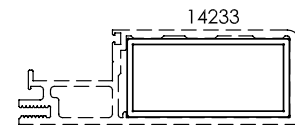
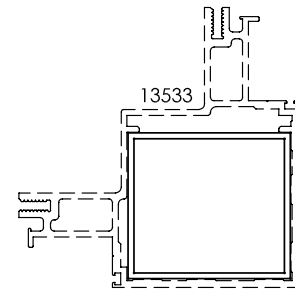
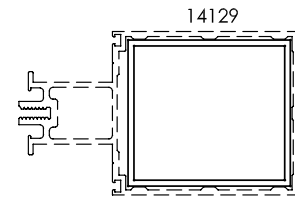
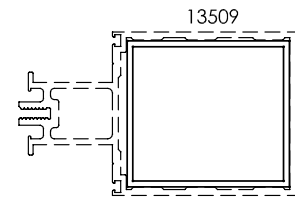
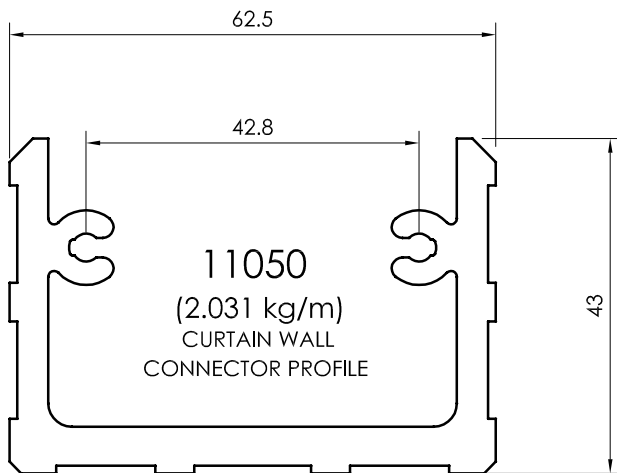
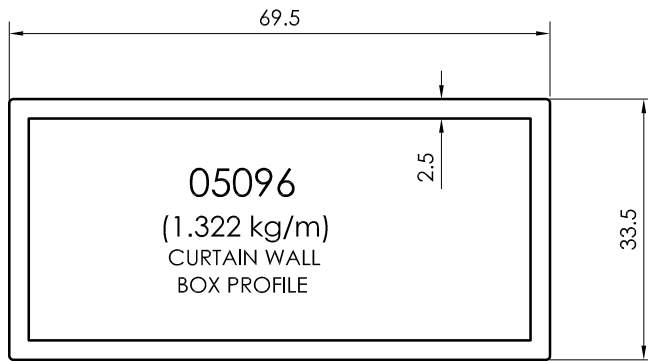
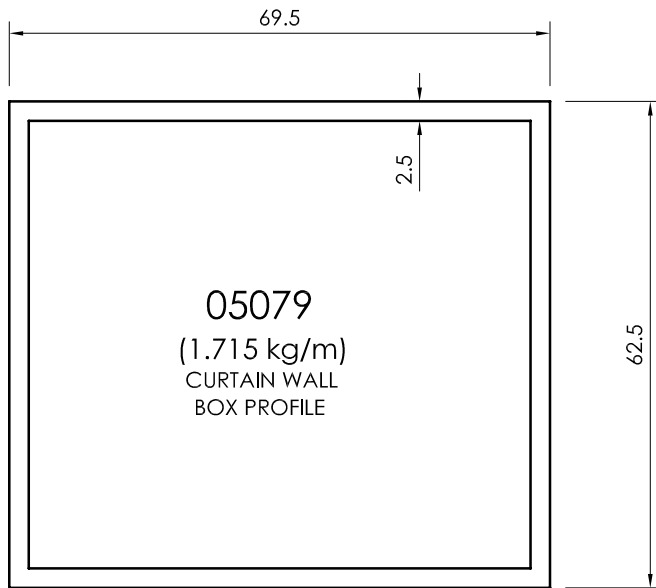


11049  
(0.295 kg/m)  
FIXED PROFILE



All dimensions in mm  
- - - - - Visible area

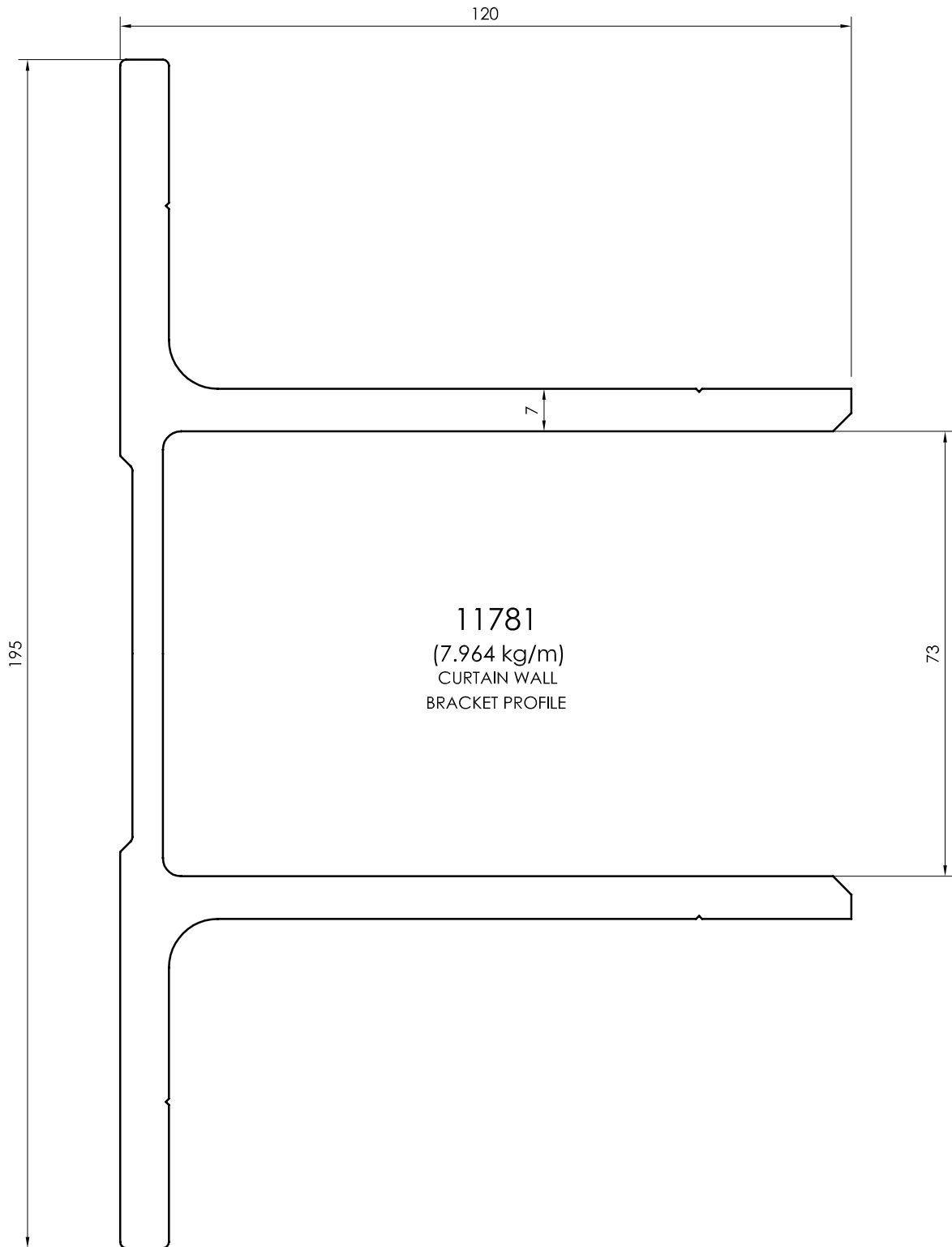
Complementary Profiles



All dimensions in mm  
Visible area\_\_\_\_\_

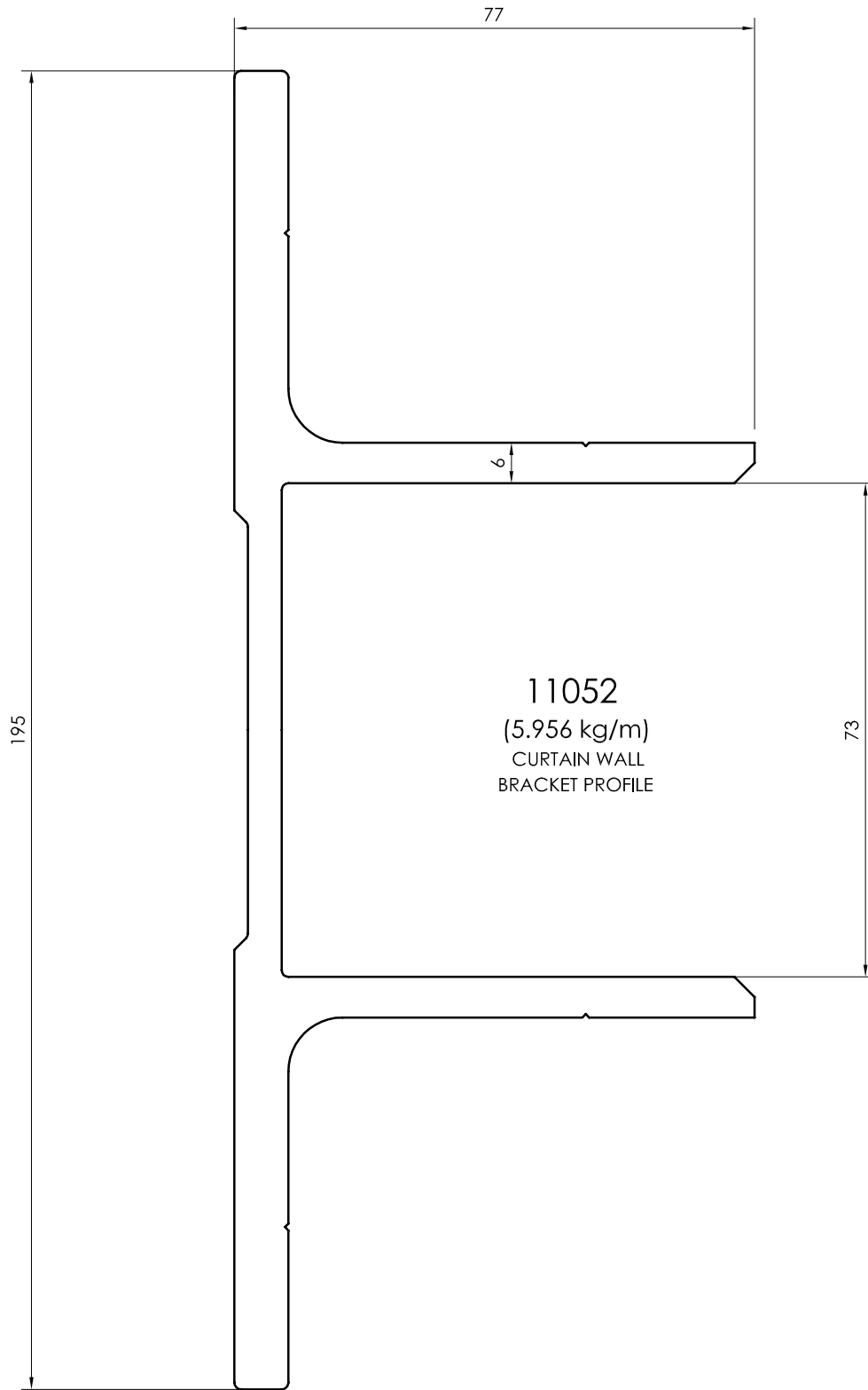


Bracket Profiles



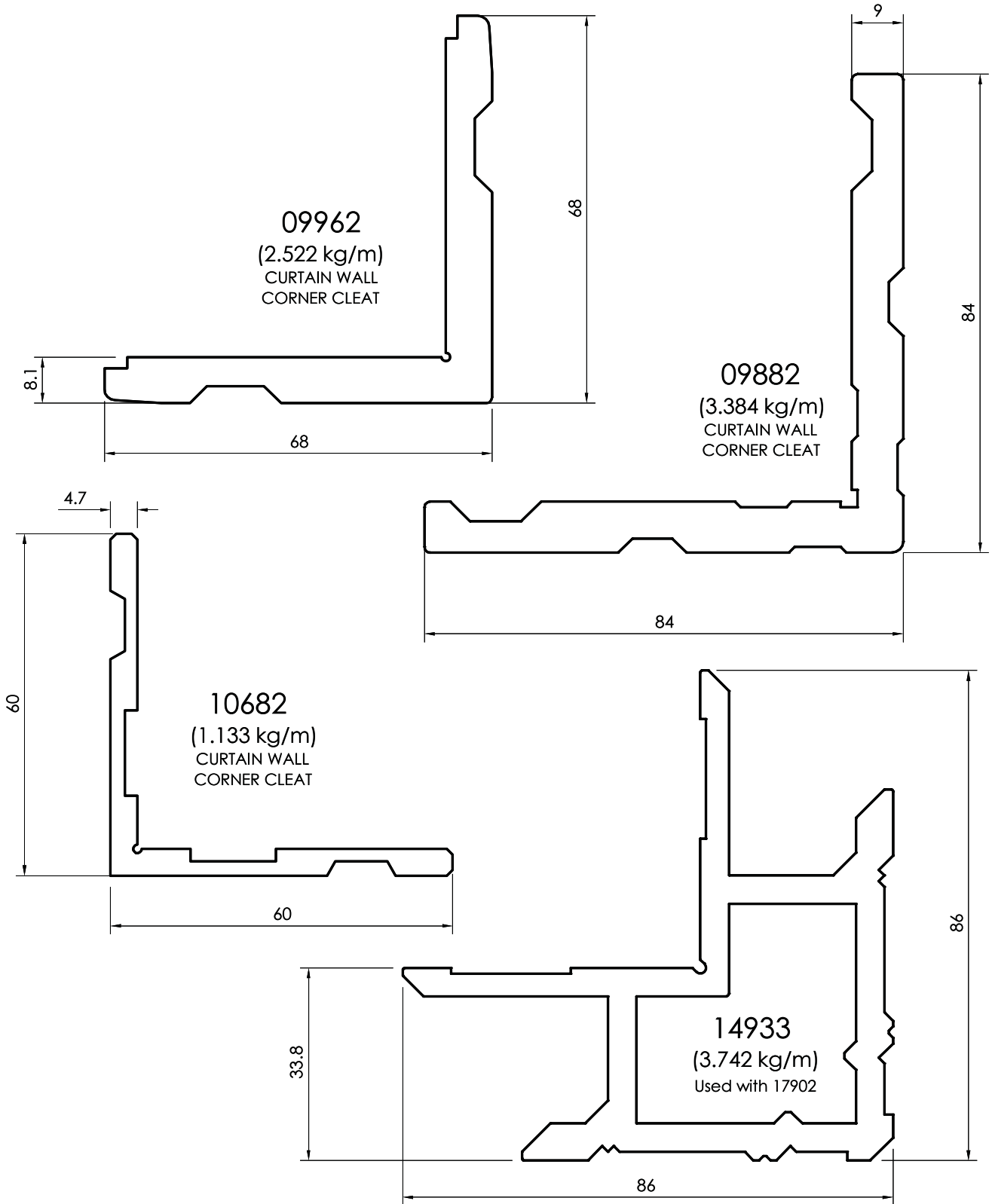
All dimensions in mm  
----- Visible area

Bracket Profiles



All dimensions in mm  
Visible area\_\_\_\_\_

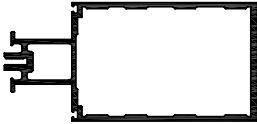
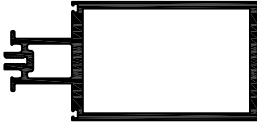
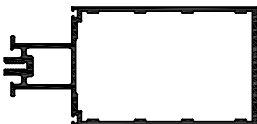
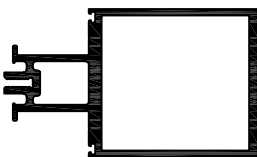
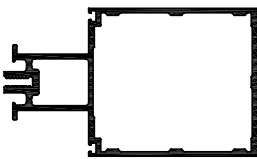
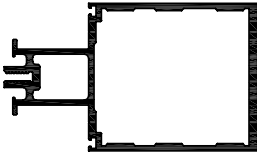
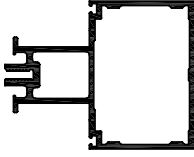
Corner Cleat Profiles

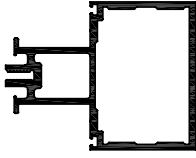
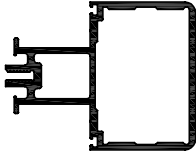




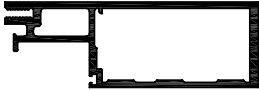


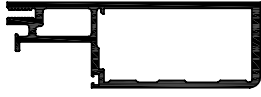
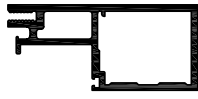
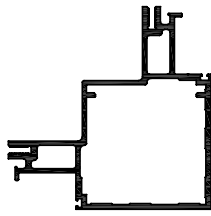
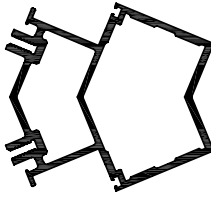
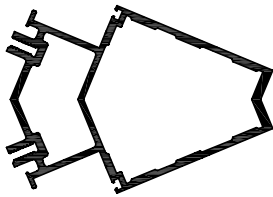
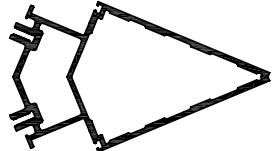
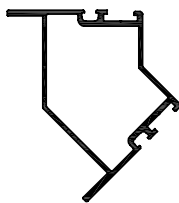
All dimensions in mm  
----- Visible area



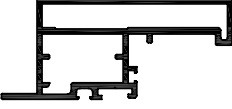
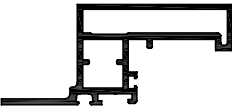
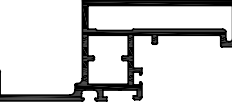
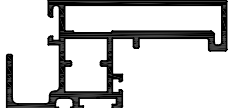
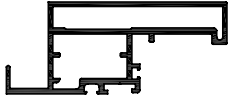
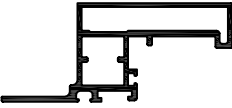
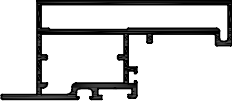
# PROFILE LIST

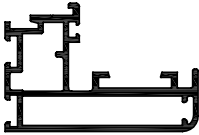
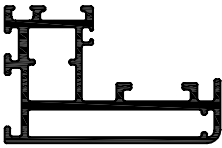
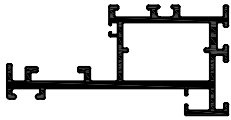
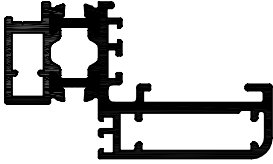
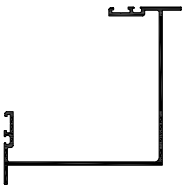


Profile Reference	Child Profile	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
13527	--		12	3.971	93.364	380.153	26.674	48.840
13660	--		12	5.194	118.582	447.364	33.880	58.381
14015	--		13	3.495	82.034	332.116	23.437	43.967
13659	--		13	4.014	77.025	219.890	22.006	36.124
14129	--		14	2.876	60.638	172.497	17.324	28.744
13509	--		14	3.495	73.605	210.039	21.029	32.818
14128	--		15	2.487	44.234	80.923	12.638	17.144





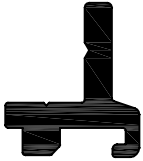
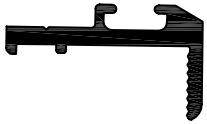

Profile Reference	Child Profile	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
13510	--		16	2.845	51.558	88.792	14.730	18.379
14234	--		15	2.817	50.358	87.053	14.387	18.172
13676	--		17	7.614	190.316	1077.15	54.375	102.292
14122	--		17	4.241	528.329	104.76	60.618	29.930
13528	--		18	3.297	30.246	287.497	13.075	37.715
14016	--		18	2.770	25.244	243.489	11.275	31.975
13522	--		19	2.817	23.829	156.084	10.102	25.114

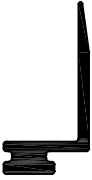
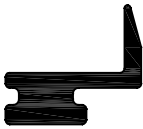



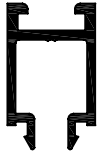

Profile Reference	Child Profile	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
14233	--		19	2.803	23.566	154.411	9.943	24.958
13621	--		16	2.242	16.928	66.086	6.935	14.107
13533	--		22	4.211	204.404	206.537	28.972	29.072
13937	--		21	3.555	92.334	124.885	20.762	22.795
13526	--		20	3.907	95.995	225.137	21.584	30.612
13936	--		21	4.111	96.397	311.90	21.675	32.660
13572	--		20	1.141	23.307	13.032	5.022	3.542

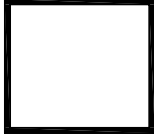




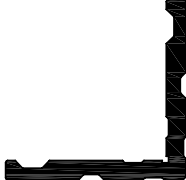



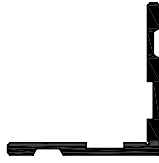
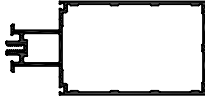
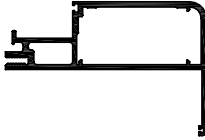

Profile Reference	Child Profile	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
13512	--		24	1.727	11.375	38.750	5.150	8.375
13511	--		23	1.541	10.274	28.752	4.861	5.811
13867	--		26	1.606	10.911	34.995	5.327	6.811
14239	--		25	1.573	28.632	9.769	6.824	4.461
13868	--		25	1.791	12.089	43.934	5.631	9.158
14130	--		23	1.359	9.020	25.204	4.386	5.096
14131	--		24	1.521	10.016	33.70	4.654	7.302

Profile Reference	Child Profile	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
14190	--		26	1.259	6.204	16.942	2.416	4.970
16316	--		27	1.466	8.204	21.291	3.304	5.700
16315	--		27	1.488	7.477	33.767	3.498	6.908
81201	16750 + 16670		28	1.349	6.712	19.454	3.242	5.215
11804	--		22	2.371	179.967	179.871	23.959	23.939
11406	--		29	0.459	0.077	4.500	0.228	1.423
11905	--		29	1.219	7.339	54.641	3.635	6.978

Profile Reference	Child Profile	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
11198	--		29	0.609	0.069	14.572	0.122	3.225
11761	--		26	0.384	0.175	3.496	6.156	1.460
11313	--		24	0.157	0.080	0.537	0.088	0.270
11335	--		28	0.135	0.007	0.179	0.022	0.172
11333	--		28	0.244	0.172	0.130	0.164	0.156
11334	--		28	0.206	0.053	0.410	0.057	0.286
11049	--		29	0.295	0.230	0.209	0.198	0.225

Profile Reference	Child Profile	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
22848	--		27	0.297	0.806	0.306	0.353	0.323
22847	--		27	0.206	0.666	0.179	0.068	0.214
22849	--		27	0.183	0.011	0.232	0.044	0.232
11432	--		26	0.087	0.019	0.004	0.040	0.019
11759	--		26	0.153	0.007	0.227	0.27	0.203
10529	--		26	0.213	0.314	0.196	0.254	0.302
23188	--		28	0.224	0.602	0.125	0.401	0.189


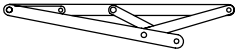

Profile Reference	Child Profile	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
05079	--		30	1.715	39.214	46.267	12.549	13.314
05096	--		30	1.322	9.325	29.961	5.567	8.622
11050	--		30	2.031	12.963	41.679	4.738	13.337
11052	--		32	5.956	106.576	619.368	18.148	63.525
11781	--		31	7.964	421.702	742.129	49.983	76.116
09882	--		33	3.384	--	--	--	--
09962	--		33	2.522	--	--	--	--

Profile Reference	Child Profile	Profile Section	Page	Weight KG/M	IX cm <sup>4</sup>	IY cm <sup>4</sup>	WX cm <sup>3</sup>	WY cm <sup>3</sup>
10682	--		33	1.133	--	--	--	--
18712	--		12	3.255	77.2801	316.202	22.078	41.972
17902	--		18	2.995	175.456	37.325	26.801	7.064
14933	--		33	3.742	--	--	--	--

# ACCESSORIES

Gasket/Accessories Reference	Section	Description	Unit
CW / 70 RUB / 1		EPDM RUBBER USED WITH SASH	Linear Meter
CW / 70 RUB / 3		EPDM RUBBER USED WITH MULLION / TRANSOM	Linear Meter
CW / 70 RUB / 2		EPDM RUBBER CENTRAL GASKET	Linear Meter
CW / 70 RUB / 6		EPDM RUBBER USED WITH SASH 81201	Linear Meter
CW / 70 RUB / 5		EPDM RUBBER USED WITH SASH 81201	Linear Meter
CW / 70 RUB / 4		THERMAL STRP	Linear Meter
GE-I-01		THERMAL STRP	Linear Meter
GE-G-020		EPDM RUBBER USED WITH SASH 14190	Linear Meter
GE-I-02		THERMAL STRP	Linear Meter
GE-G-054		EPDM RUBBER USED WITH GLASS HOLDER 11313	Linear Meter

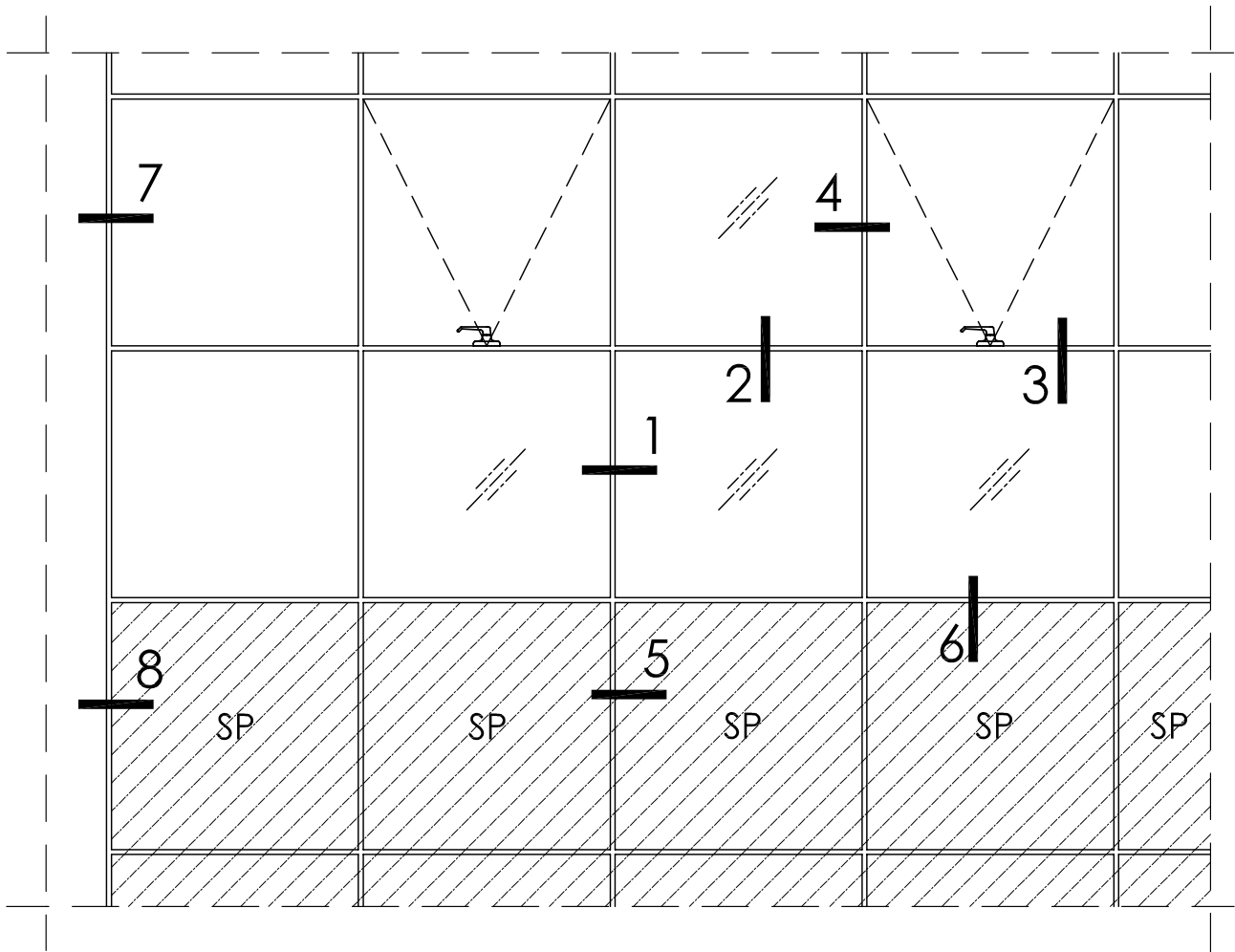


Gasket/Accessories Reference	Section	Description	Unit
GE-G-007		EPDM RUBBER USED WITH SINGLE GLASS ADAPTOR 23188	Linear Meter
GE-STAY ARM		FRICTION STAY ARM	Piece
GE-LOCKING SYSTEM		LOCKING SYSTEM	Piece



# ASSEMBLY DRAWINGS

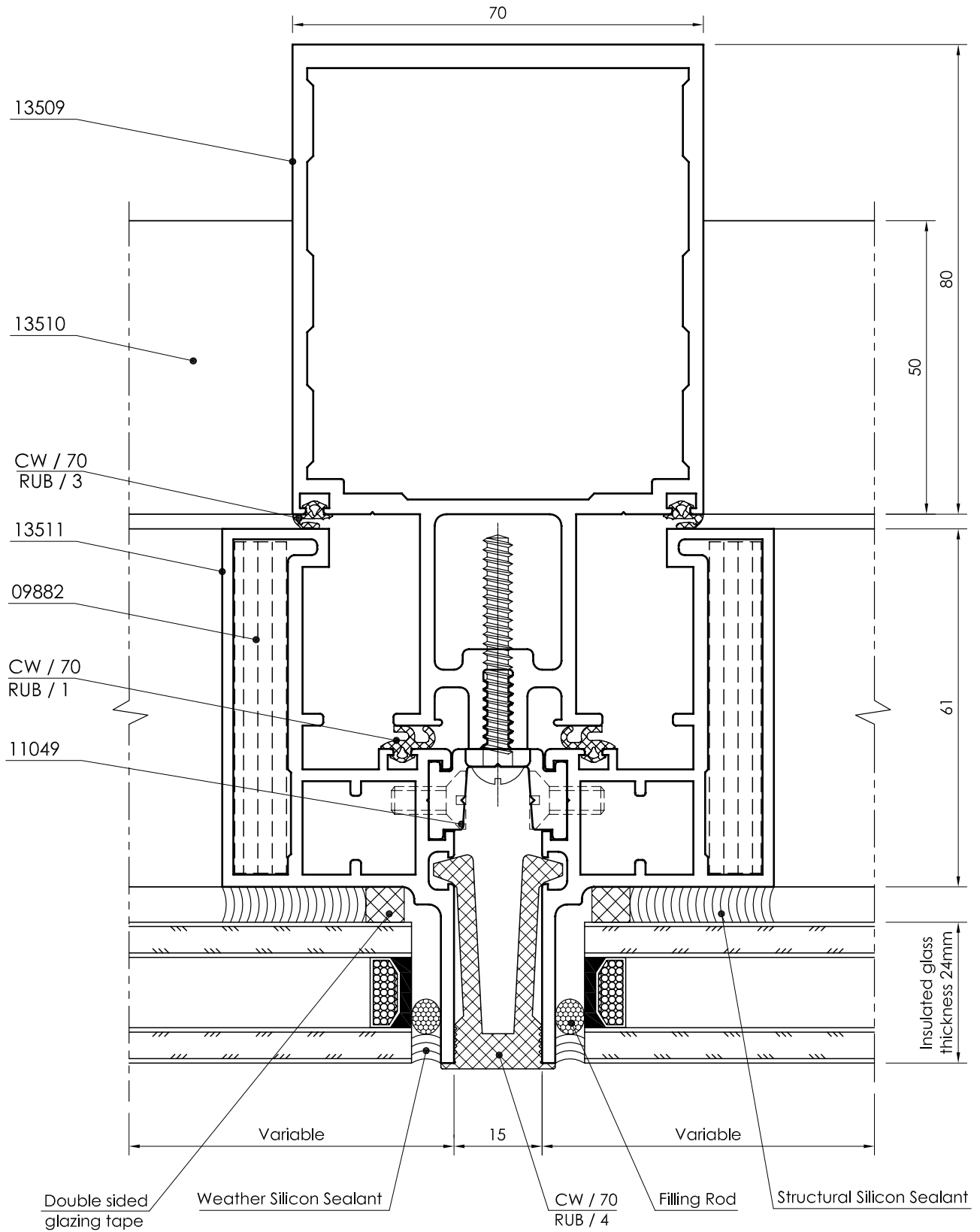
## 70mm 4-way Structural Glazing



All dimensions in cross sections are shown in mm  
Profile are not necessarily shown to scale

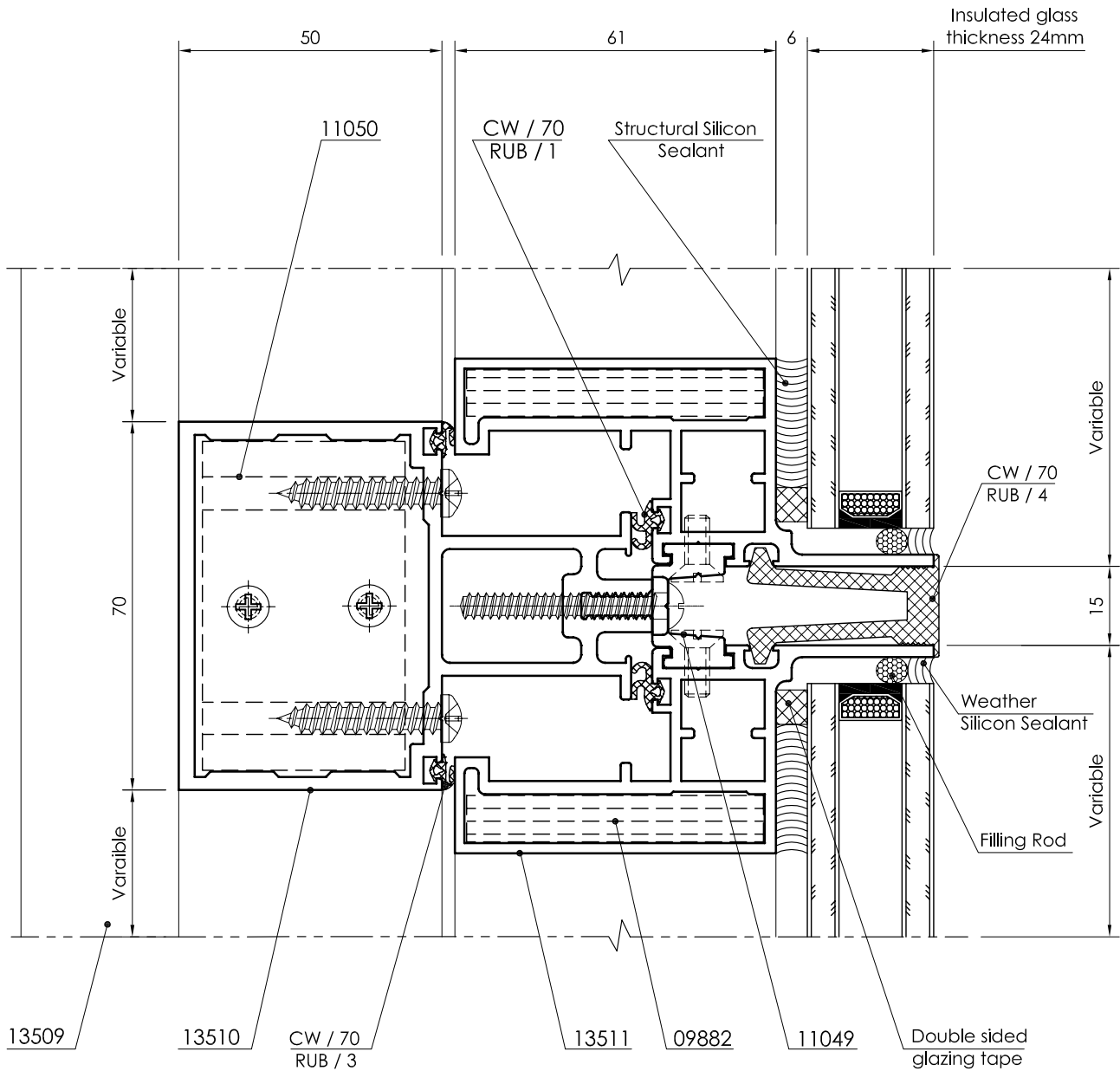
70mm 4-way Structural Glazing

Detail - 1



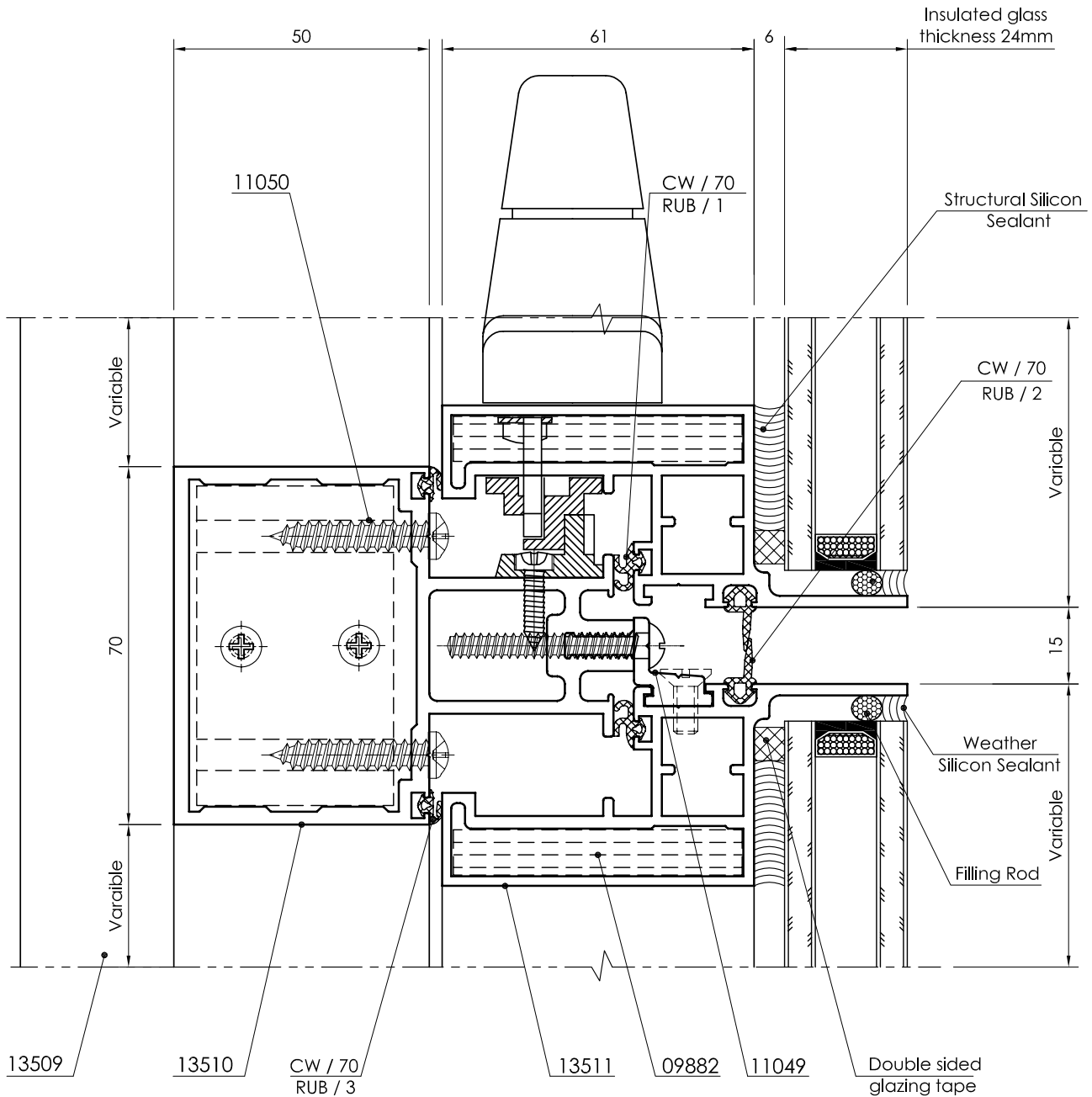
All dimensions in mm  
----- Visible area

**70mm 4-way Structural Glazing**  
Detail - 2



All dimensions in mm  
Visible area\_\_\_\_\_

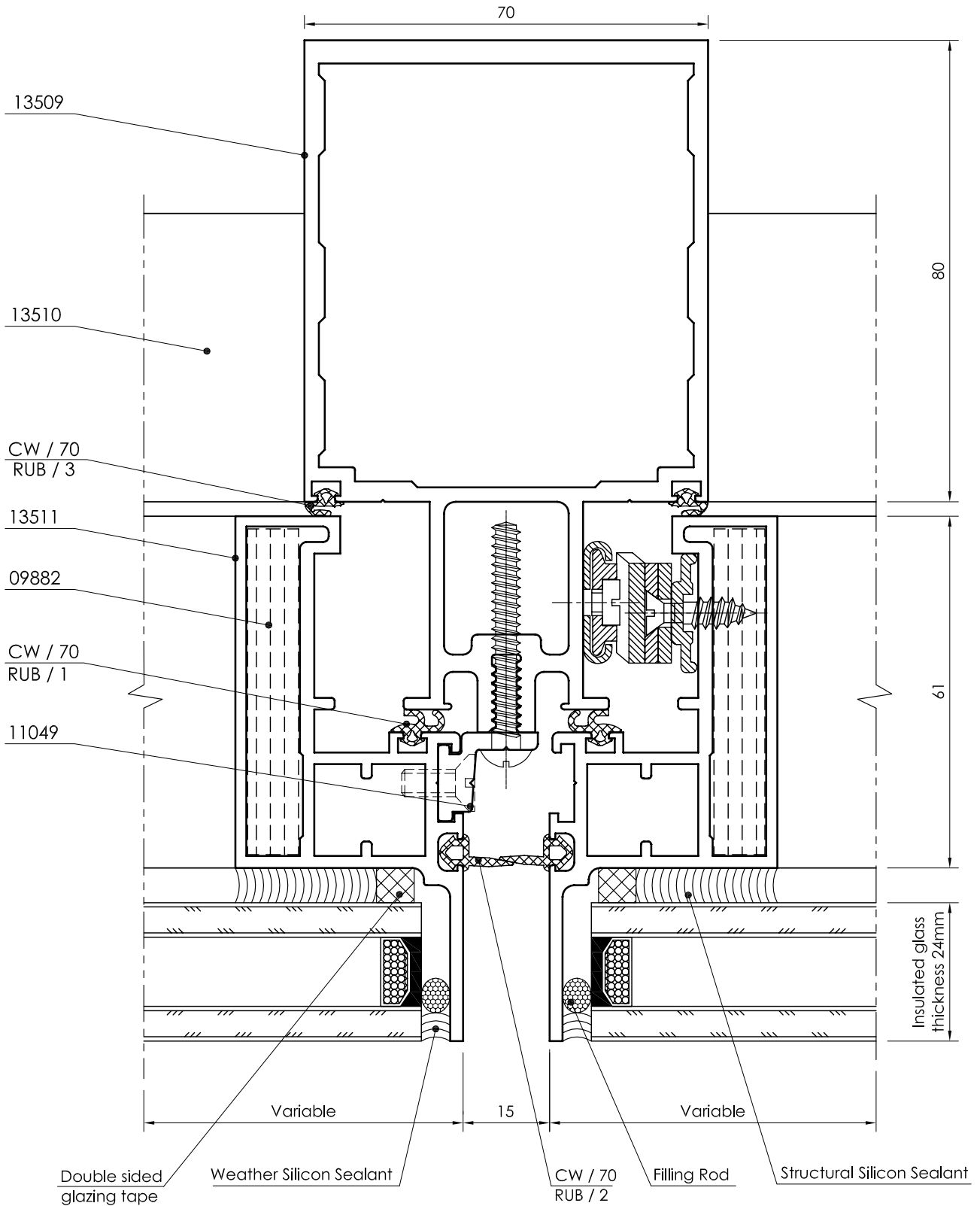
**70mm 4-way Structural Glazing**  
Detail - 3



All dimensions in mm  
----- Visible area

70mm 4-way Structural Glazing

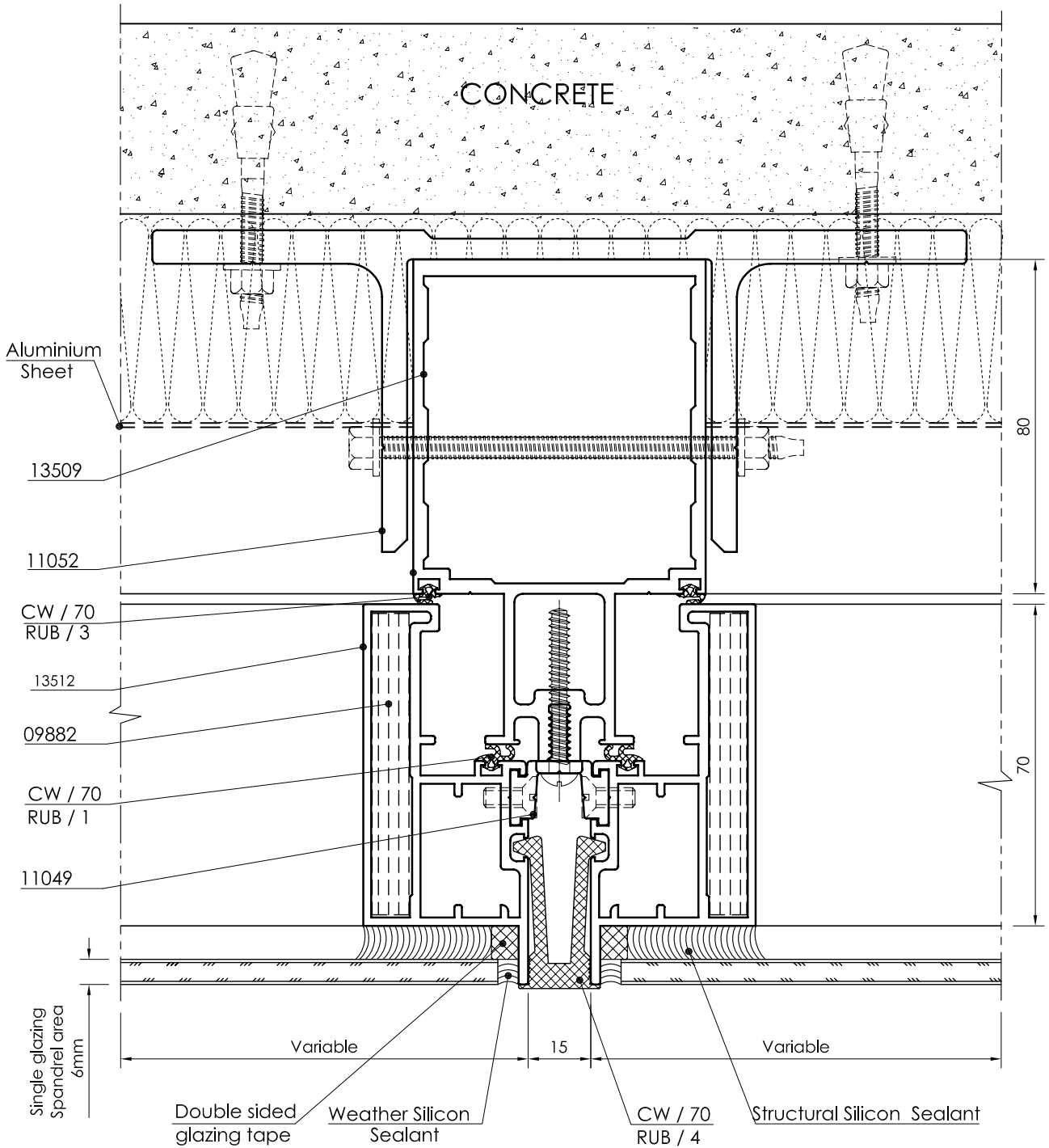
Detail - 4



All dimensions in mm  
Visible area\_\_\_\_\_

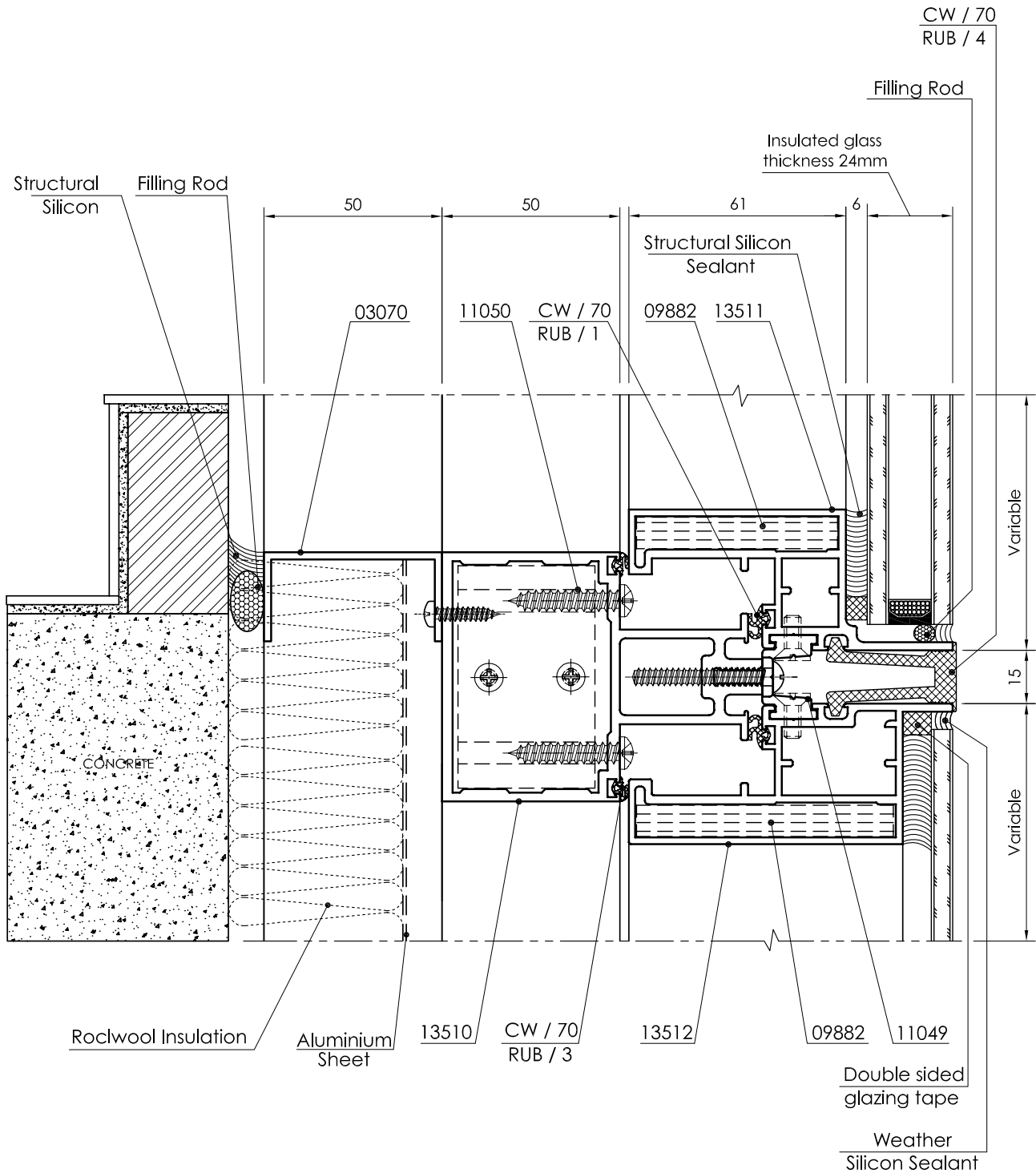


70mm 4-way Structural Glazing  
Detail - 5



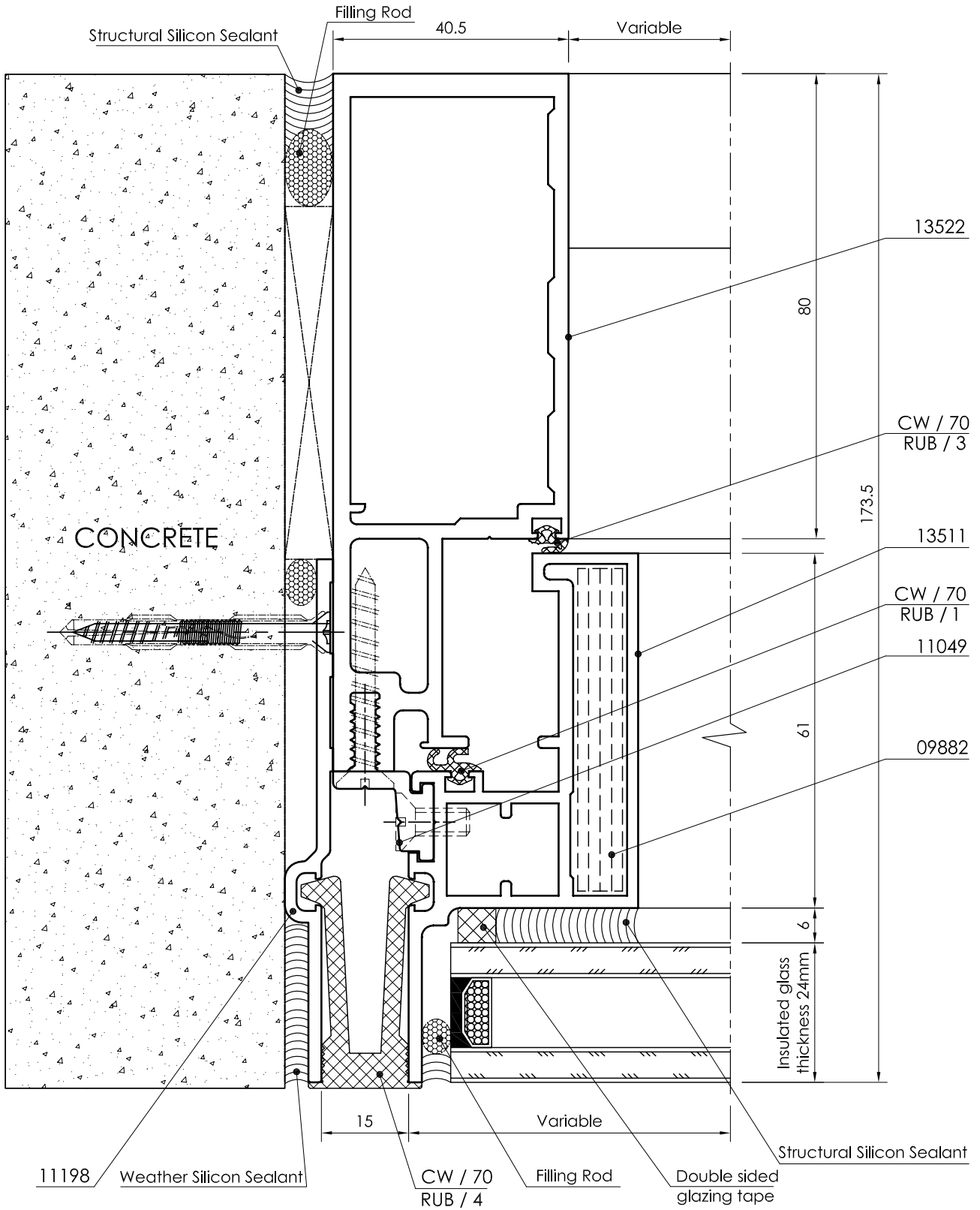
All dimensions in mm  
----- Visible area

**70mm 4-way Structural Glazing**  
Detail - 6



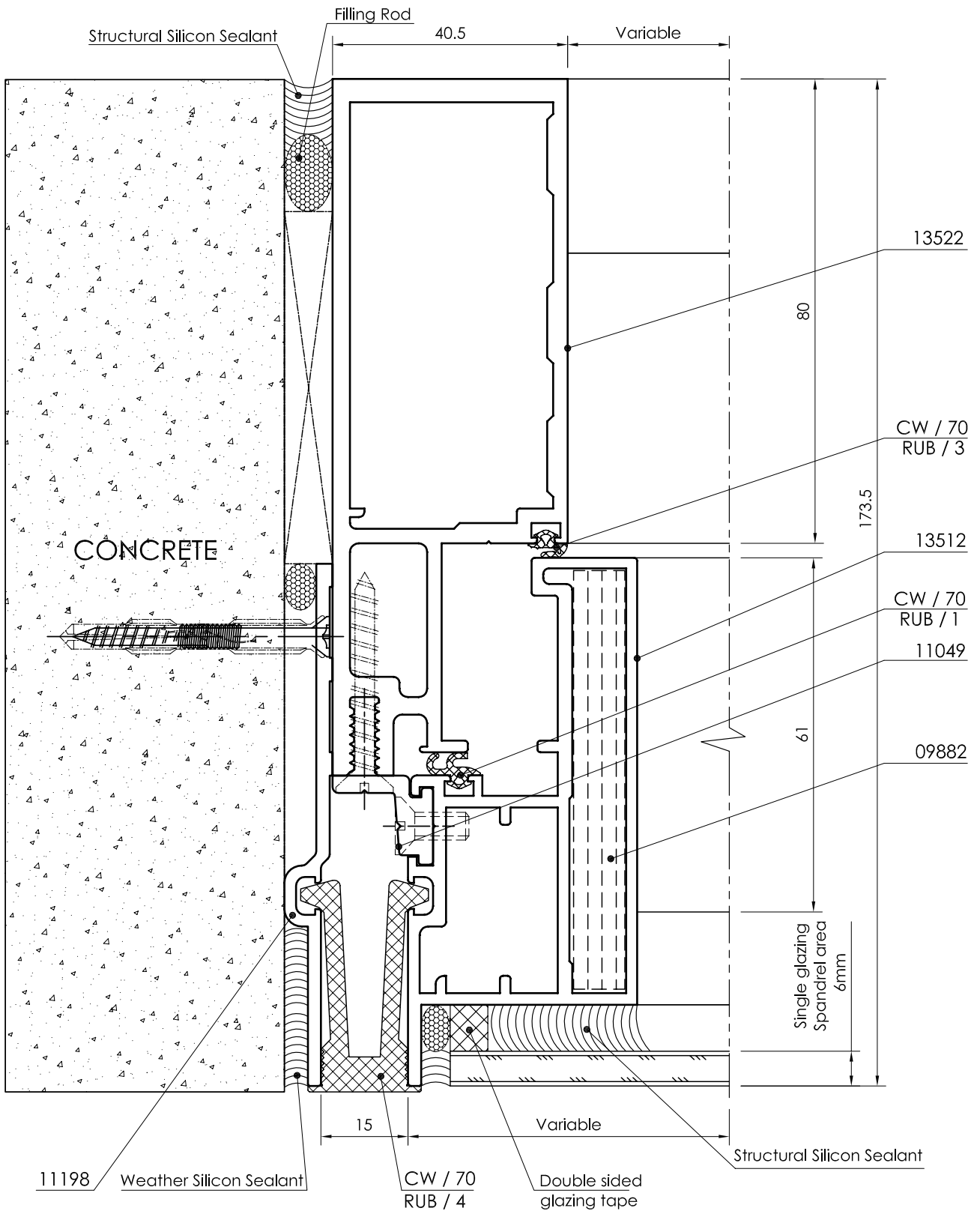
All dimensions in mm  
Visible area\_\_\_\_\_

70mm 4-way Structural Glazing  
Detail - 7



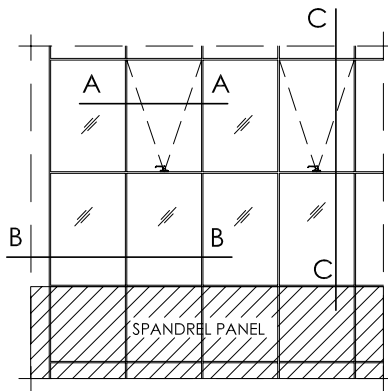
All dimensions in mm  
----- Visible area

**70mm 4-way Structural Glazing**  
Detail - 8



All dimensions in mm  
Visible area\_\_\_\_\_

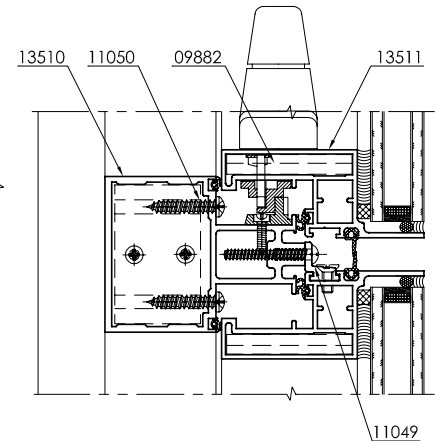
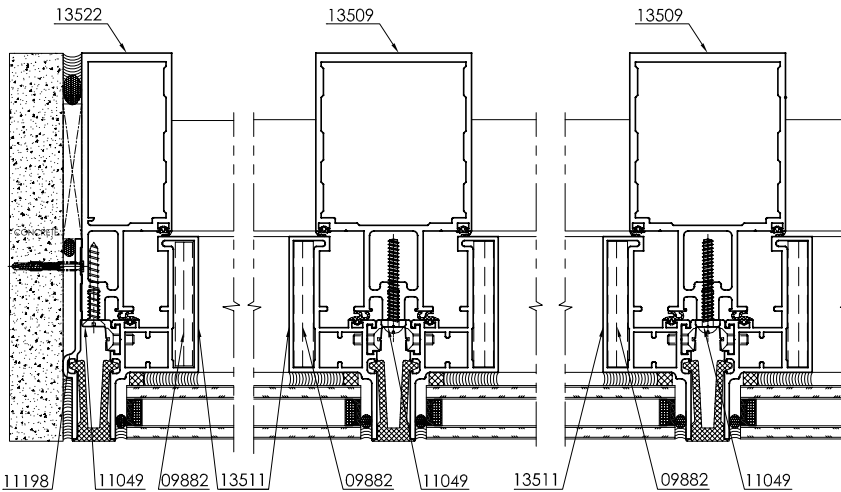
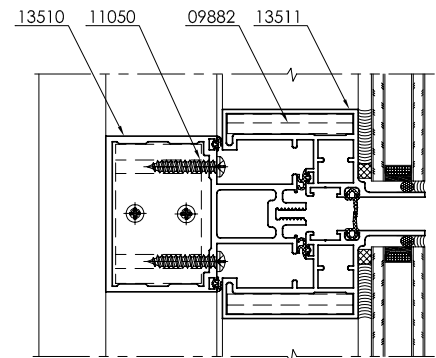
70mm 4-way Structural Glazing



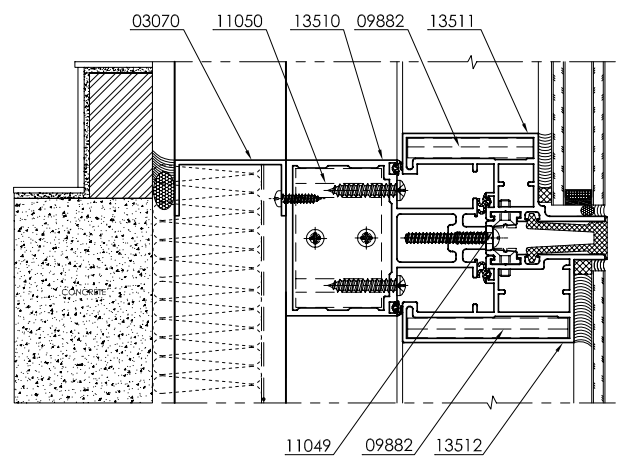
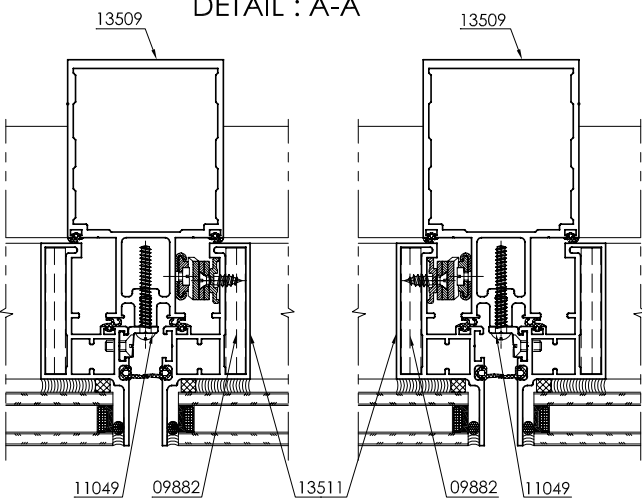
DETAIL : B-B

Profiles		
Description	Shape	Section No.
Mullion		13509
Transom		13510
Half Mullion		13522
Sash		13511
Sash		13512
Fixed Profile		11049
End Closure Profile		11198
Corner Cleat		09882
Connector		11050
U-Channel		03070
Bracket		11052

DETAIL : C-C

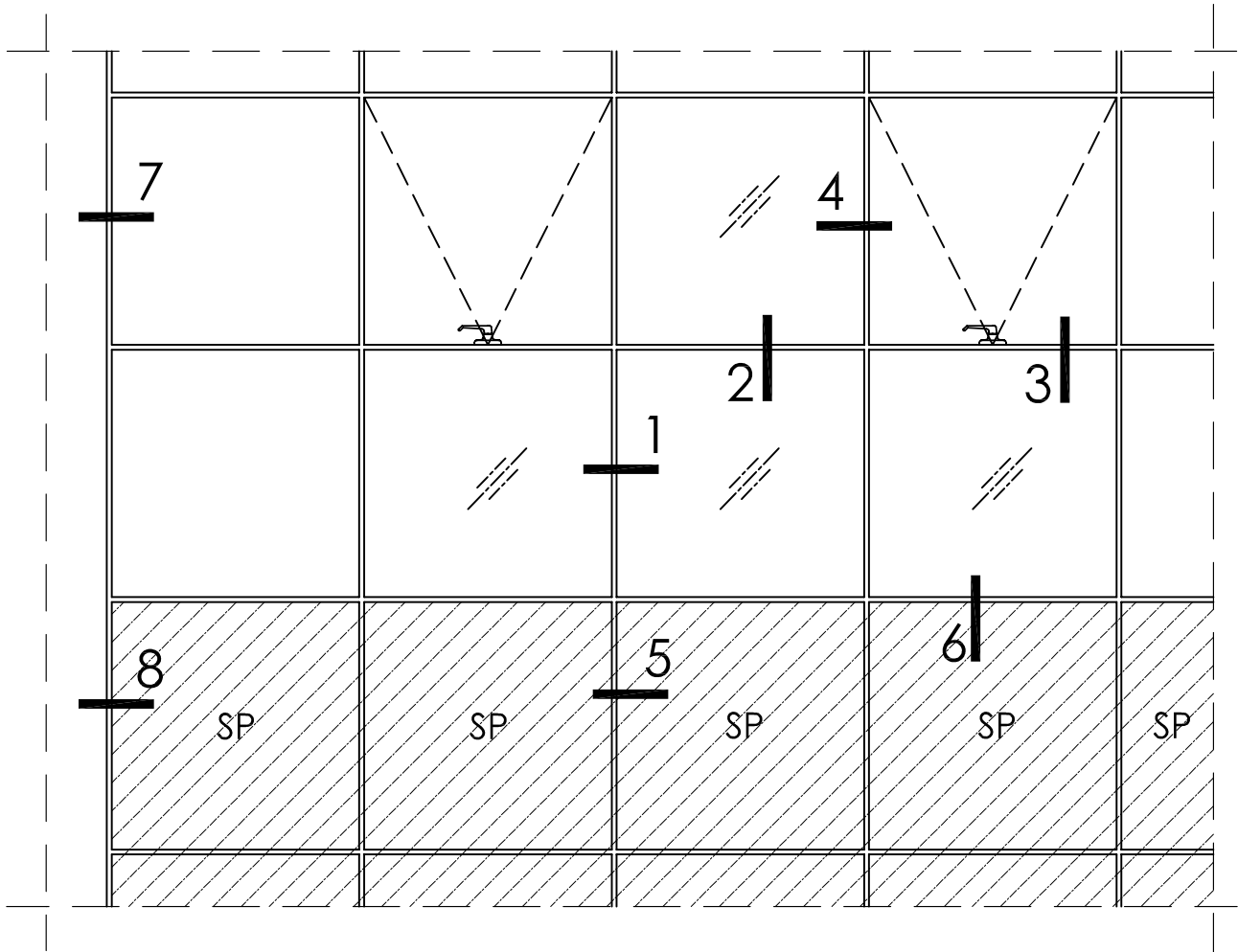


DETAIL : A-A



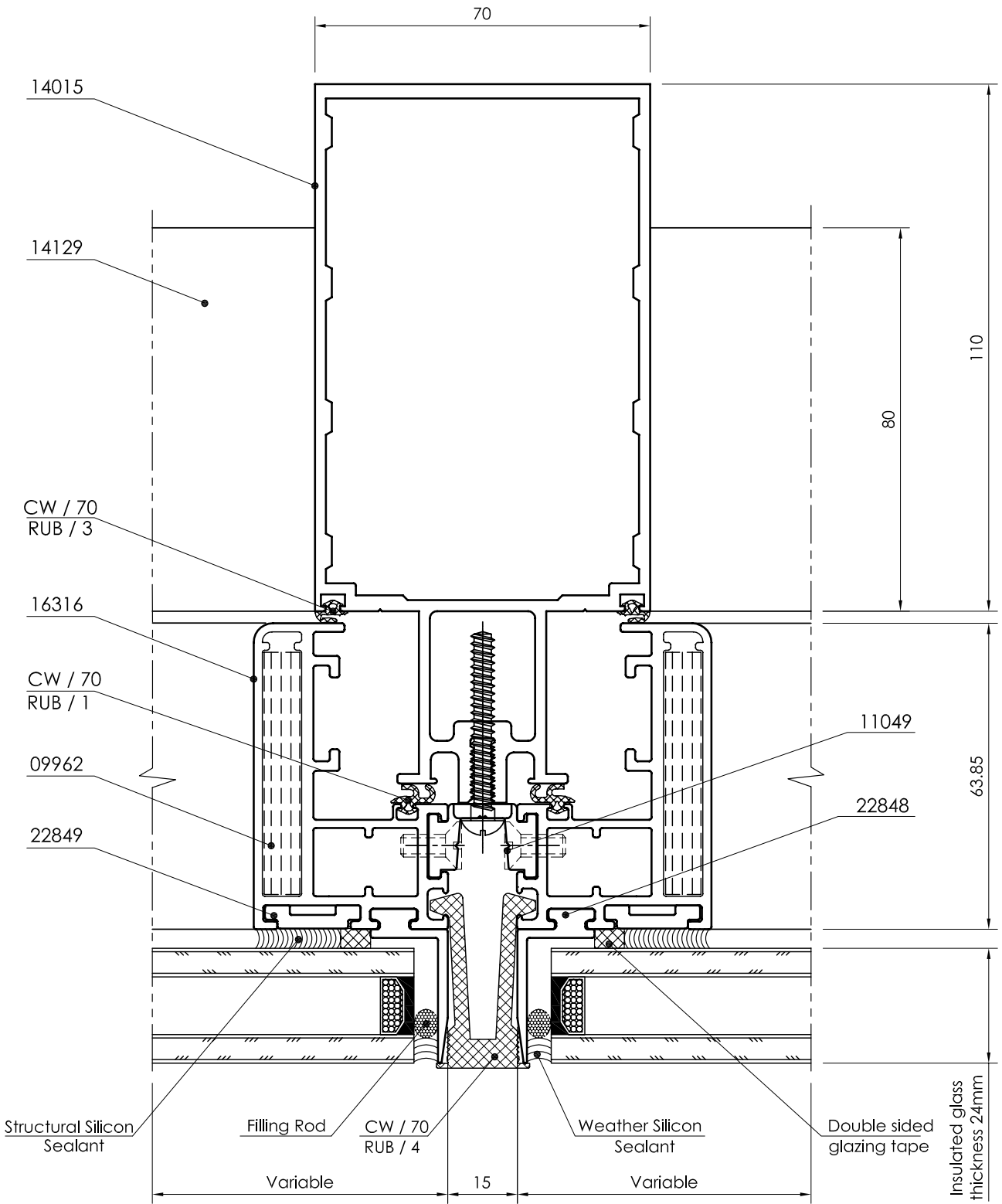
All dimensions in mm  
 ----- Visible area

## 70mm 4-way Structural Glazing



All dimensions in cross sections are shown in mm  
Profile are not necessarily shown to scale

**70mm 4-way Structural Glazing**  
Detail - 1

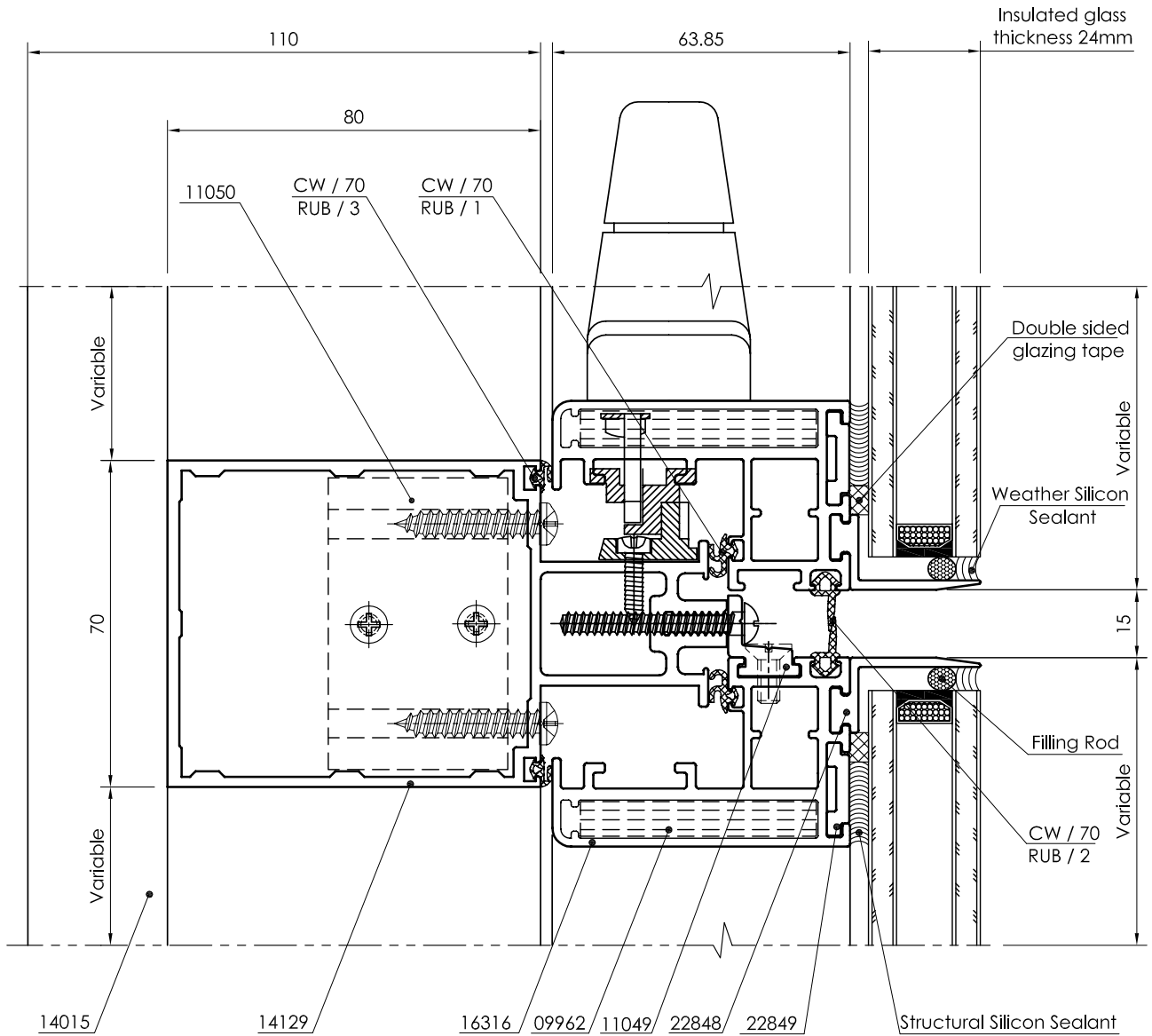


All dimensions in mm  
----- Visible area



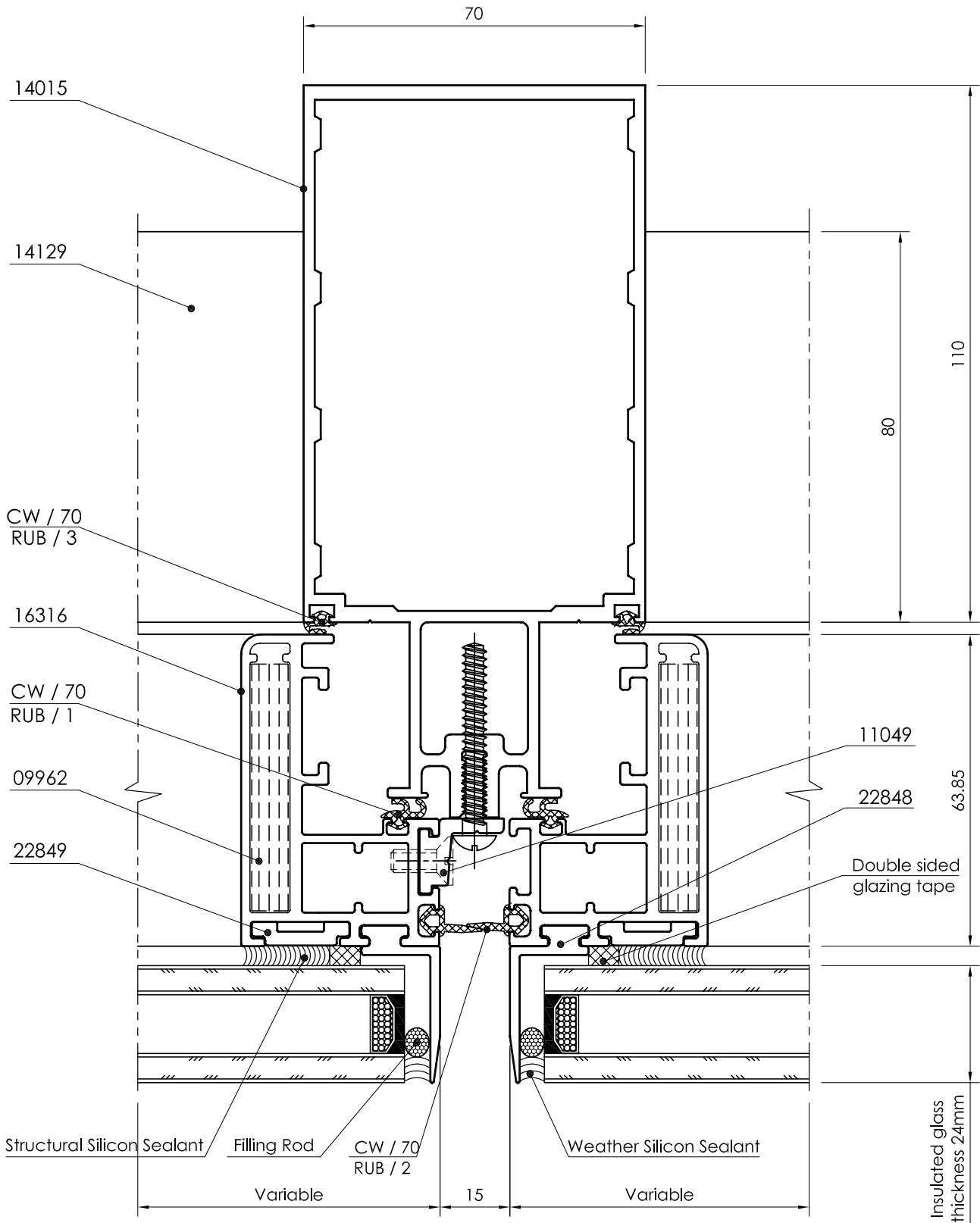


**70mm 4-way Structural Glazing**  
Detail - 3



70mm 4-way Structural Glazing

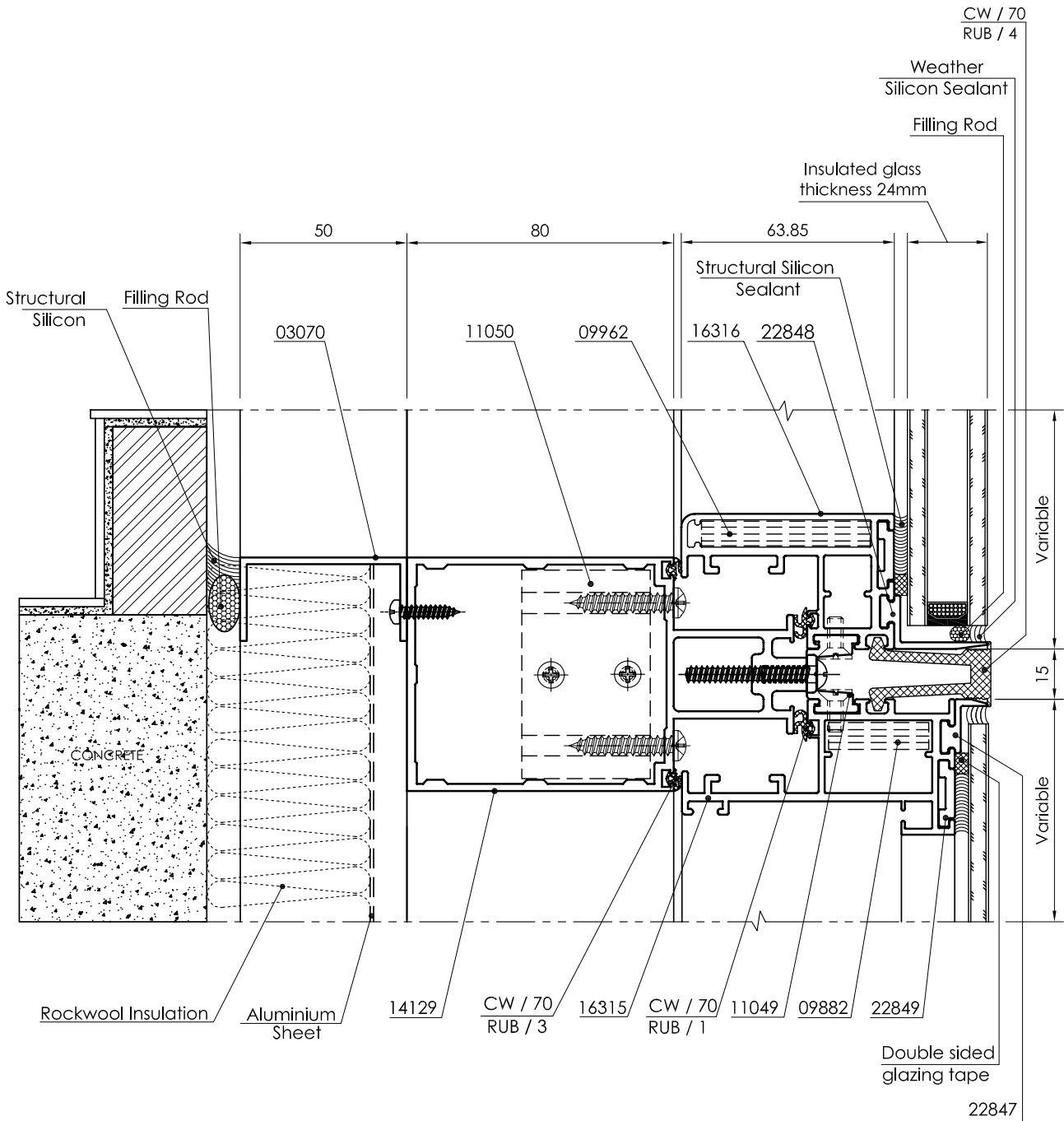
Detail - 4



All dimensions in mm  
Visible area\_\_\_\_\_

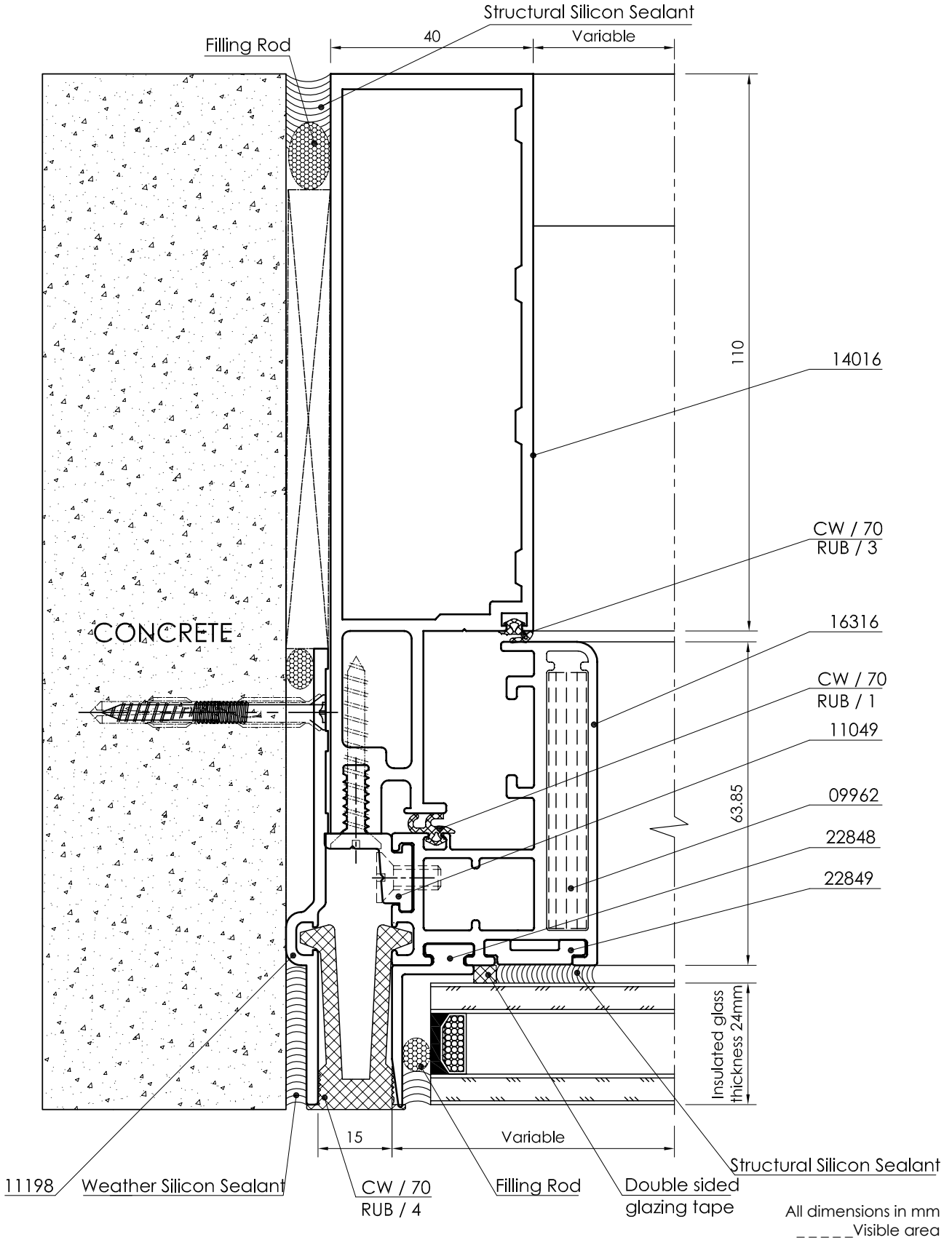


**70mm 4-way Structural Glazing**  
Detail - 6

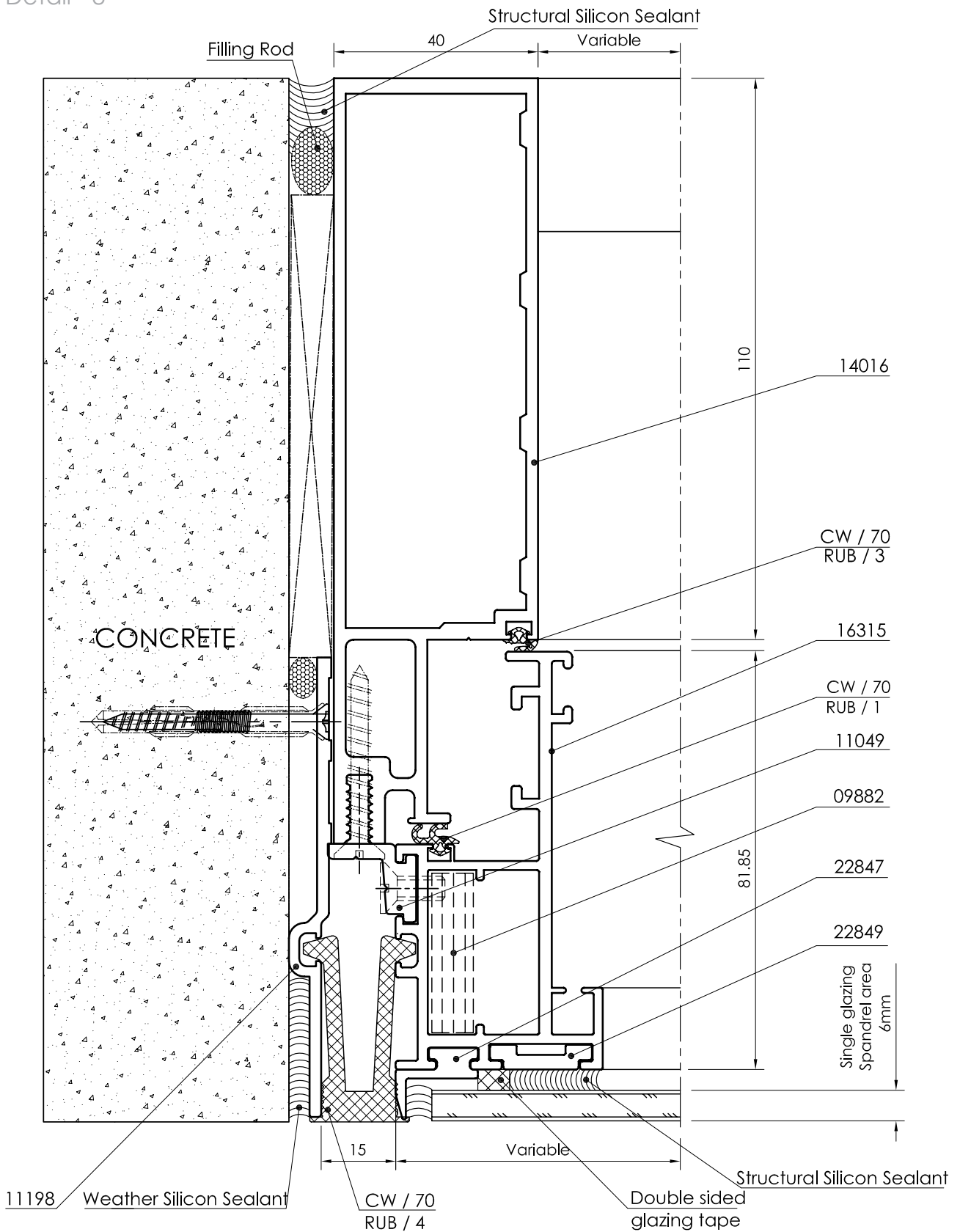


All dimensions in mm  
Visible area\_\_\_\_\_

**70mm 4-way Structural Glazing**  
Detail - 7

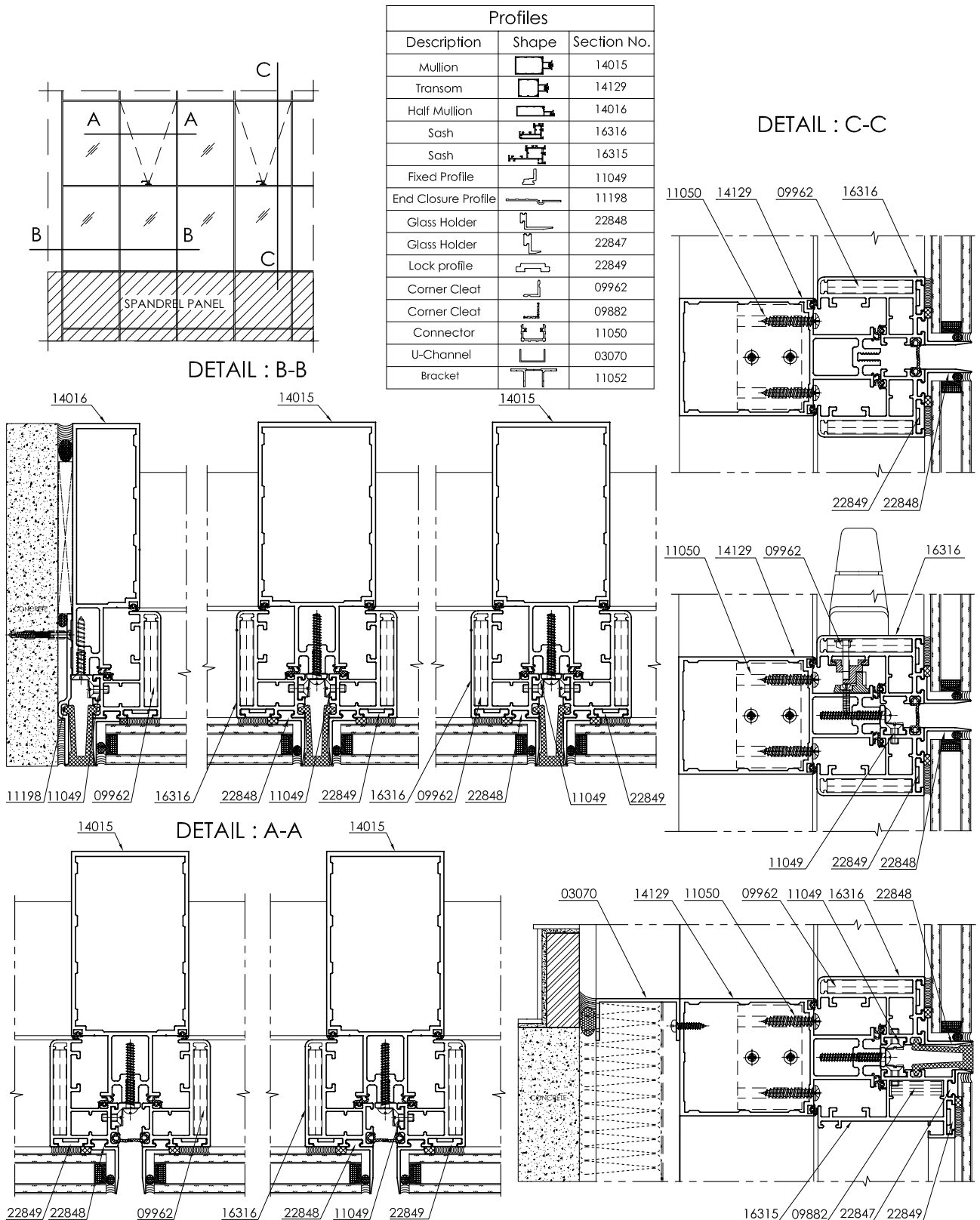


**70mm 4-way Structural Glazing**  
Detail - 8



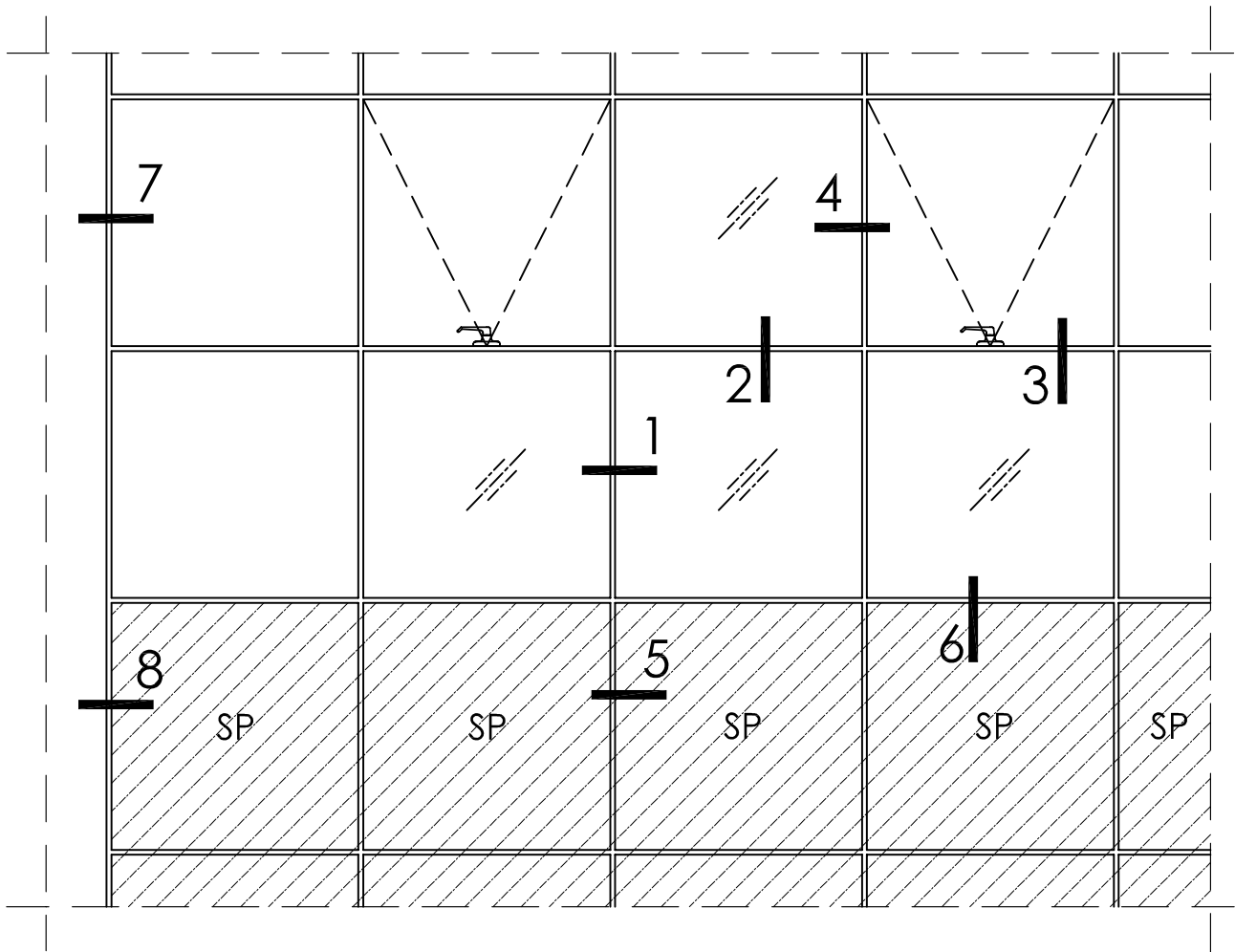
All dimensions in mm  
Visible area\_\_\_\_\_

## 70mm 4-way Structural Glazing



All dimensions in mm  
 ----- Visible area

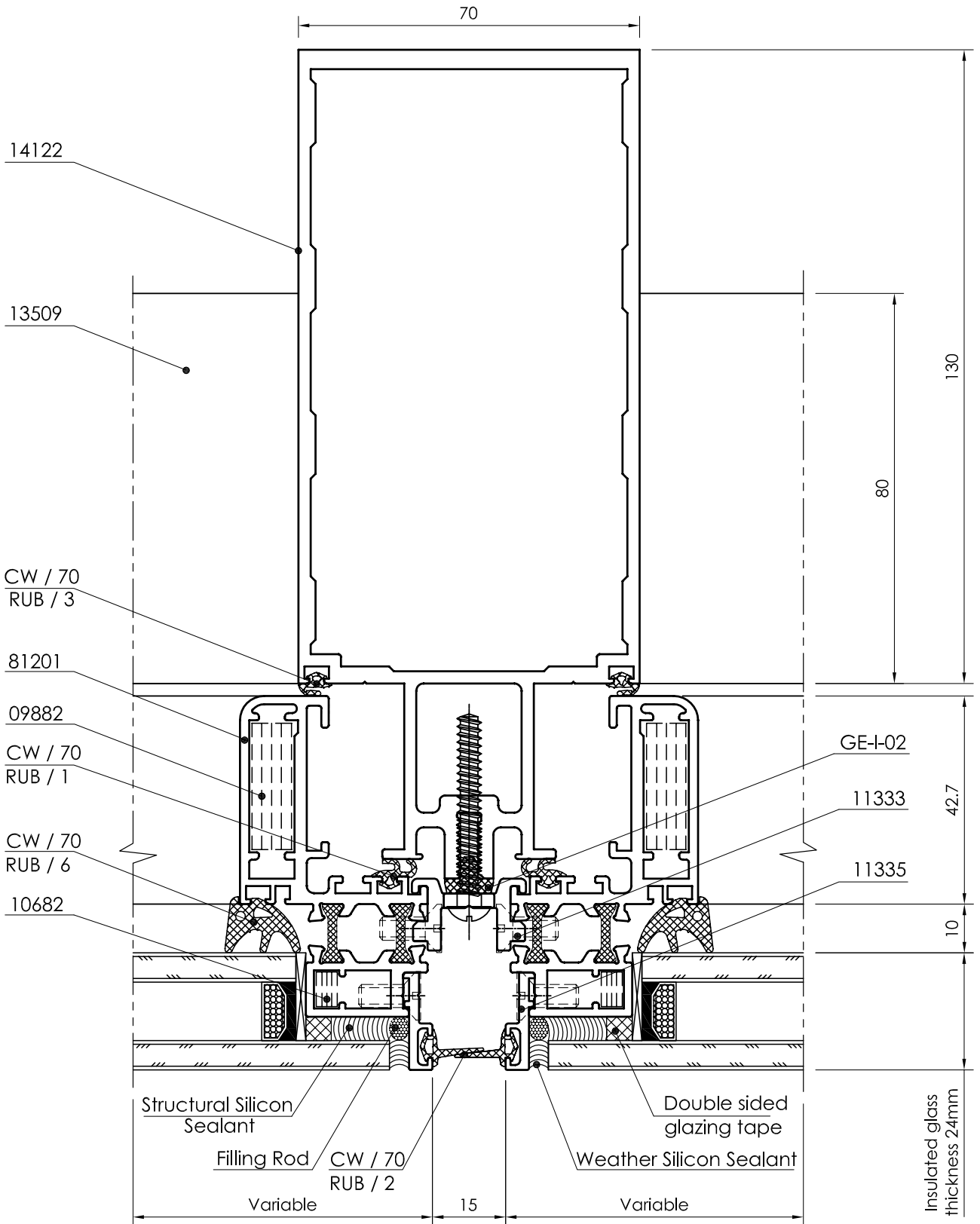
**70mm 4-way Structural Glazing**  
Thermal Break



All dimensions in cross sections are shown in mm  
Profile are not necessarily shown to scale

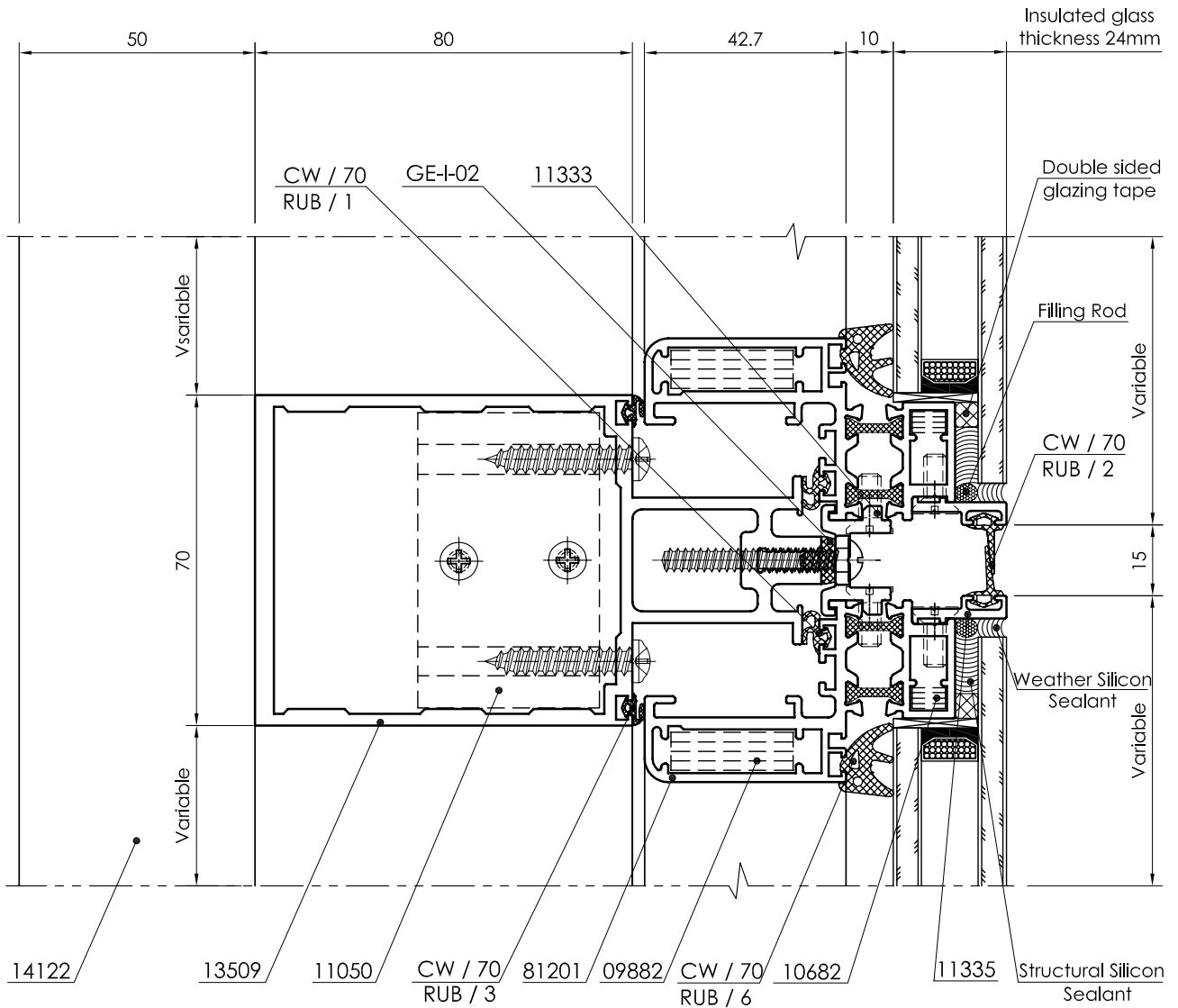


**70mm 4-way Structural Glazing**  
Detail - 1



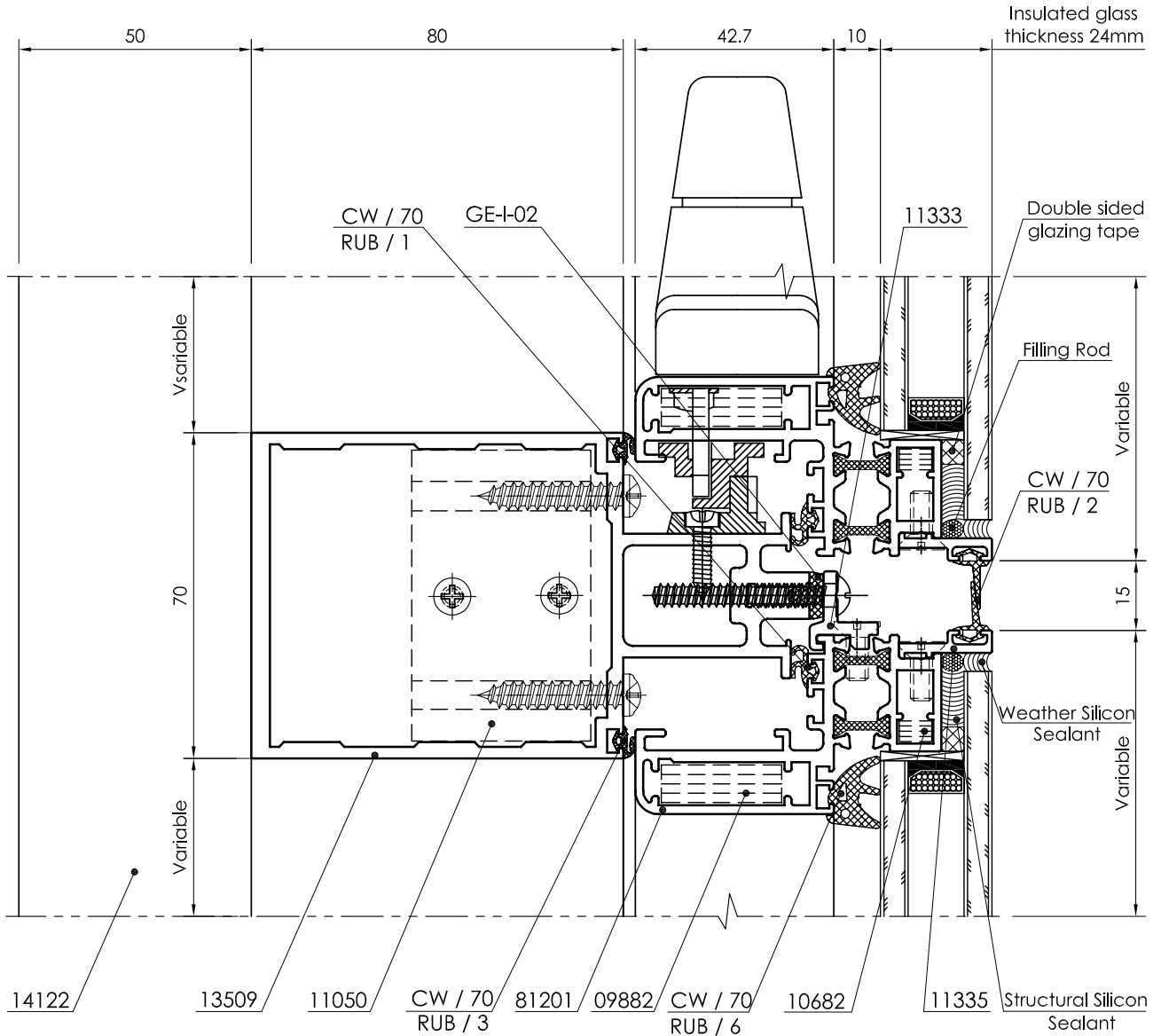
All dimensions in mm  
----- Visible area

**70mm 4-way Structural Glazing**  
Detail - 2



All dimensions in mm  
Visible area\_\_\_\_\_

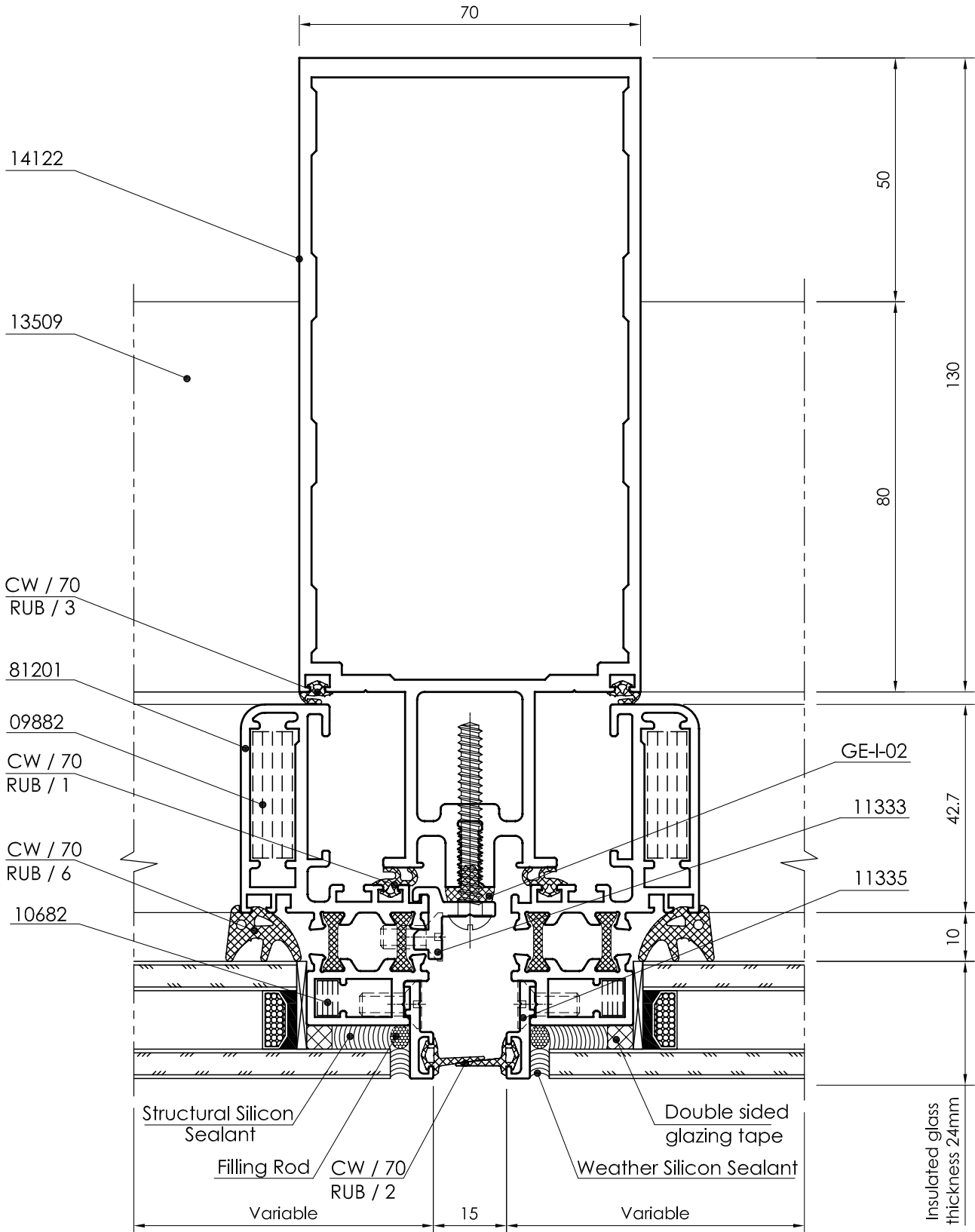
**70mm 4-way Structural Glazing**  
Detail - 3



All dimensions in mm  
----- Visible area

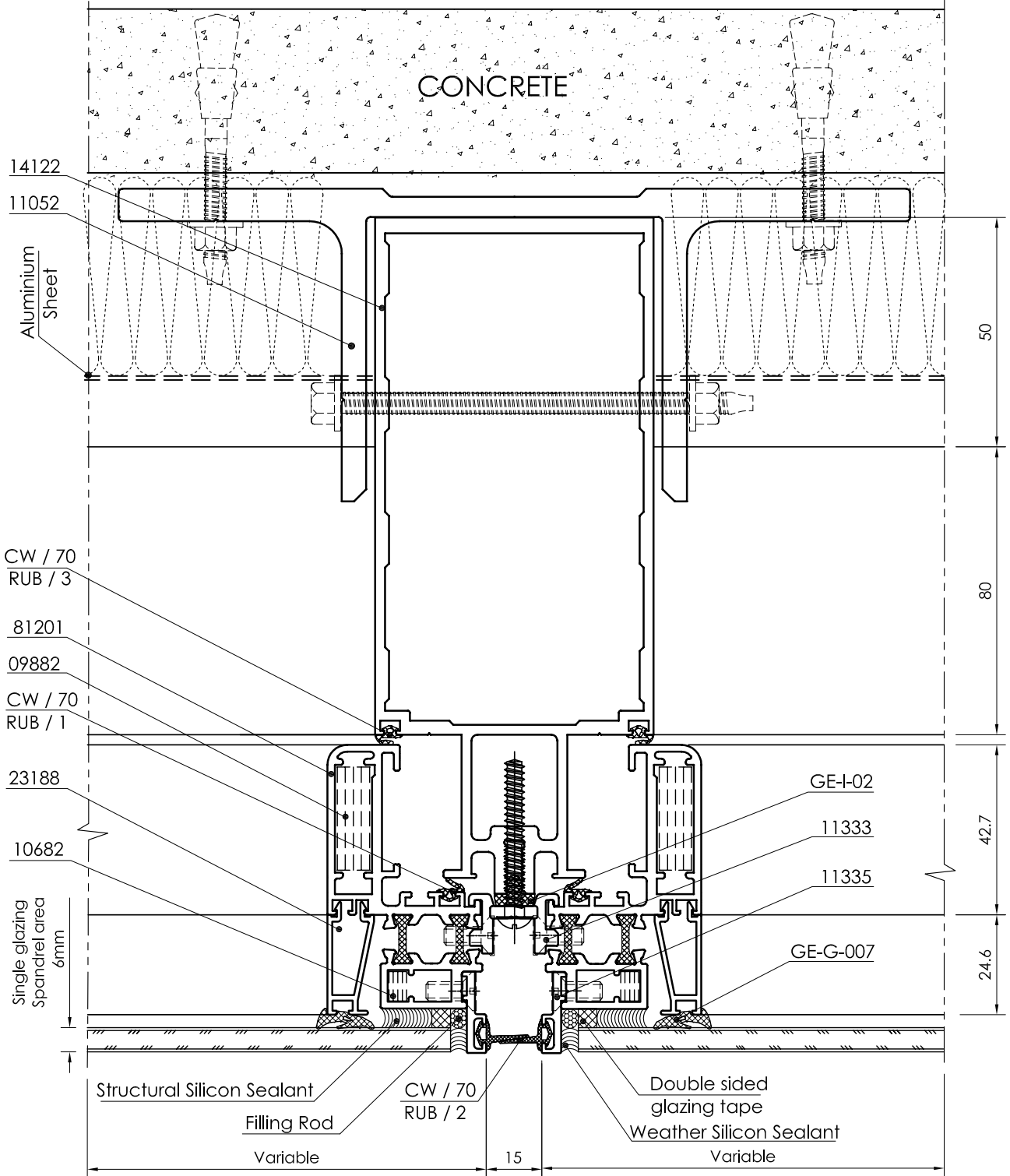
70mm 4-way Structural Glazing

Detail - 4



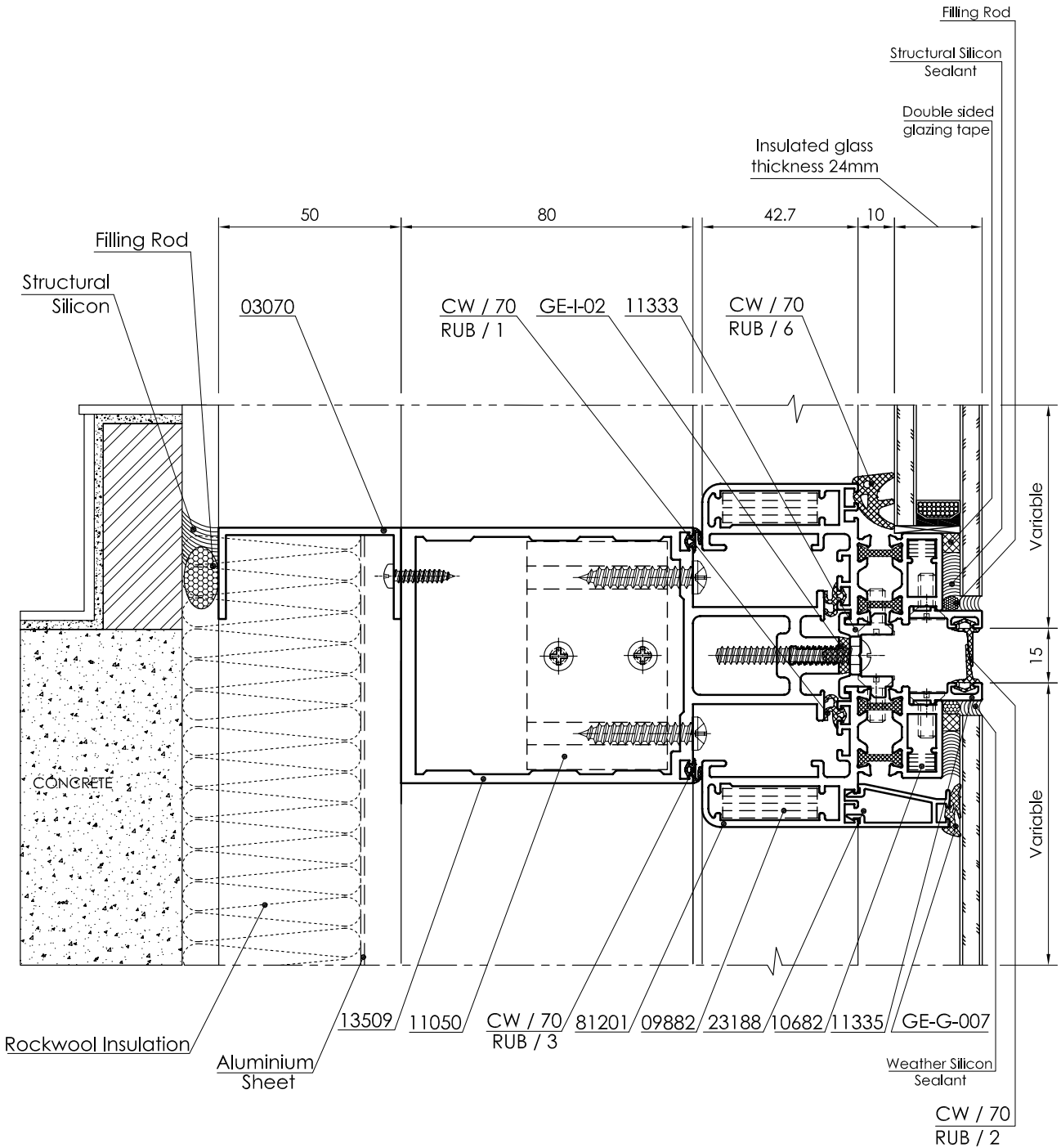
All dimensions in mm  
Visible area\_\_\_\_\_

70mm 4-way Structural Glazing  
Detail - 5



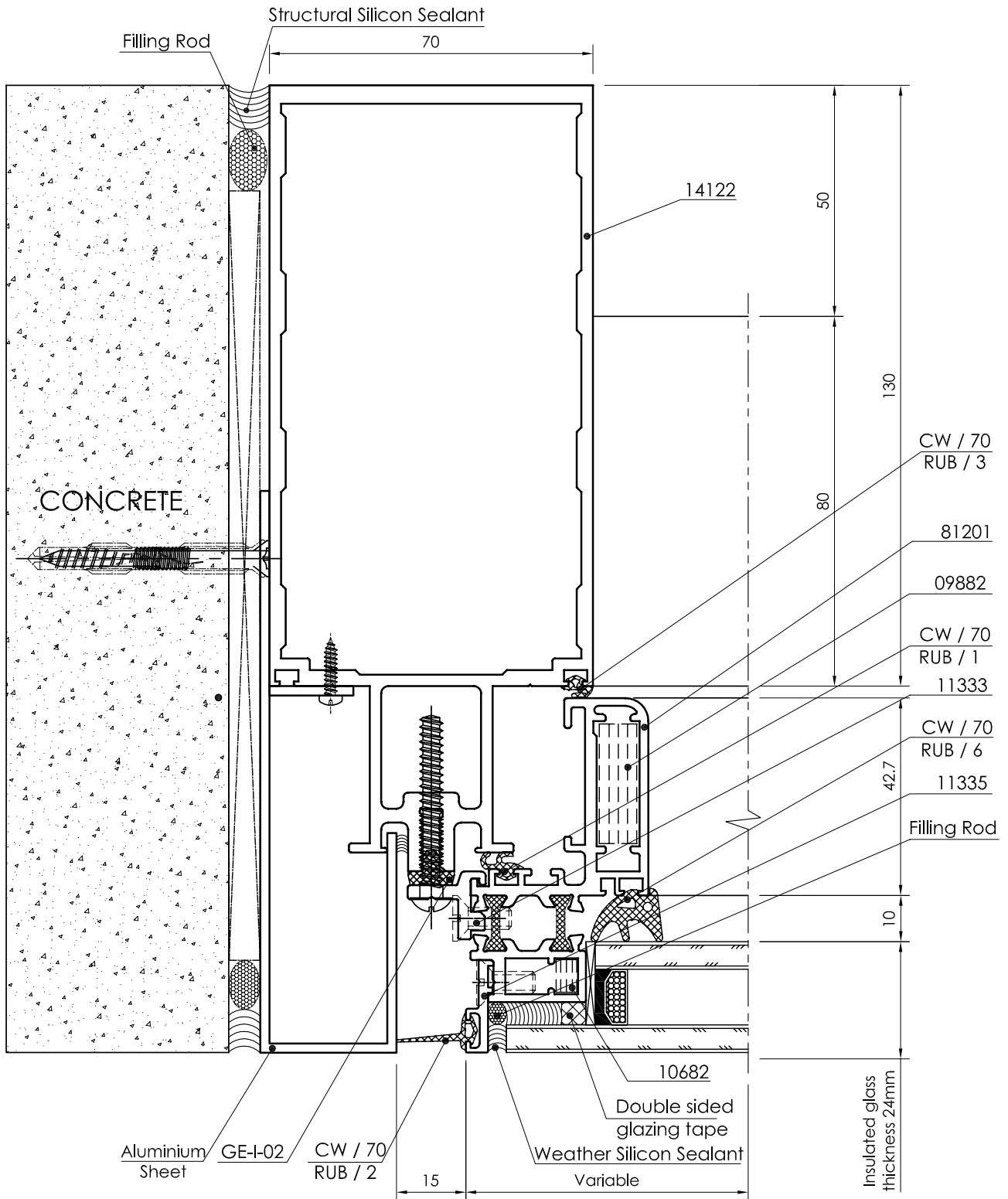
All dimensions in mm  
--- Visible area

**70mm 4-way Structural Glazing**  
Detail - 6



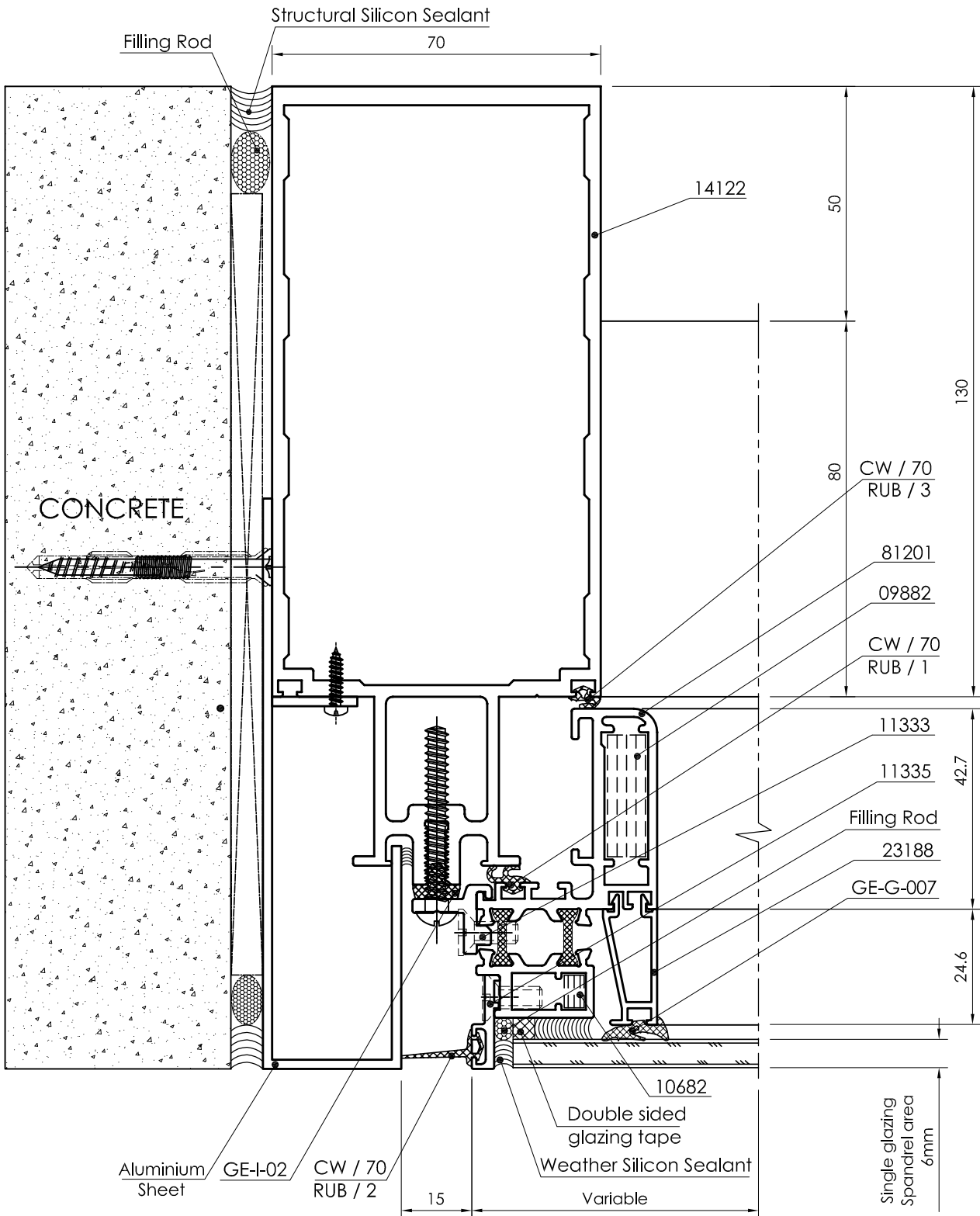
All dimensions in mm  
Visible area\_\_\_\_\_

70mm 4-way Structural Glazing  
Detail - 7



All dimensions in mm  
----- Visible area

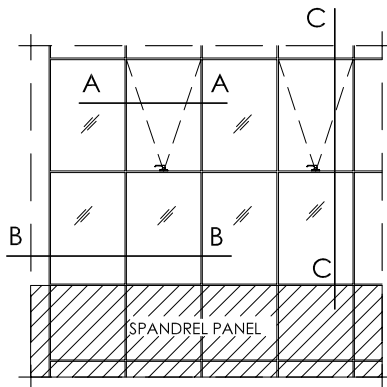
**70mm 4-way Structural Glazing**  
Detail - 8



All dimensions in mm  
Visible area\_\_\_\_\_

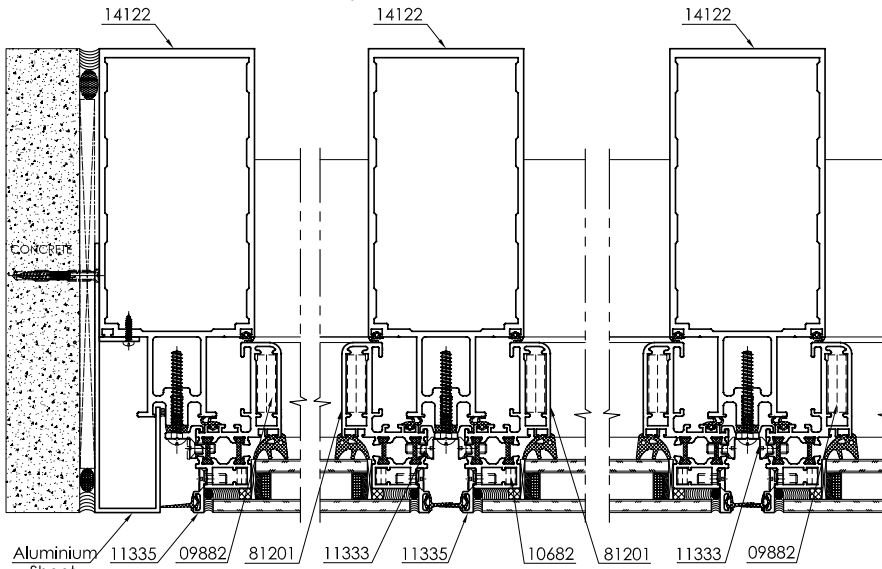


**70mm 4-way Structural Glazing**  
Thermal Break

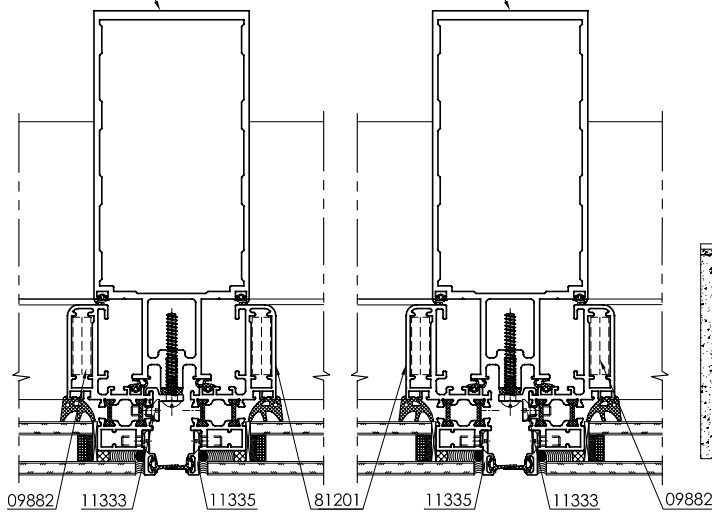


Profiles		
Description	Shape	Section No.
Mullion		14122
Transom		13509
Sash		81201
Fixed Profile		11333
Glass Holder		11335
Single Glass Adaptor		23188
Corner Cleat		09882
Connector		11050
U-Channel		03070
Bracket		11052

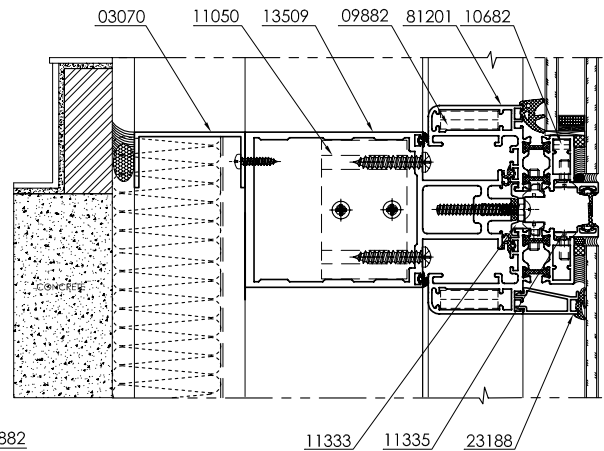
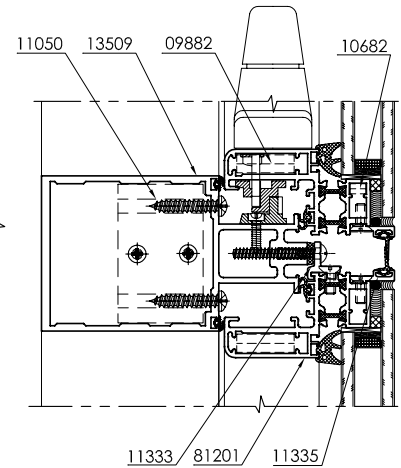
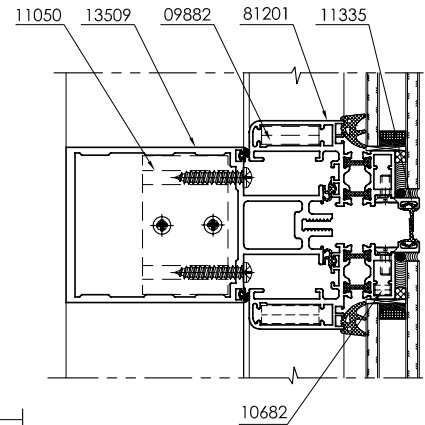
DETAIL : B-B



DETAIL : A-A

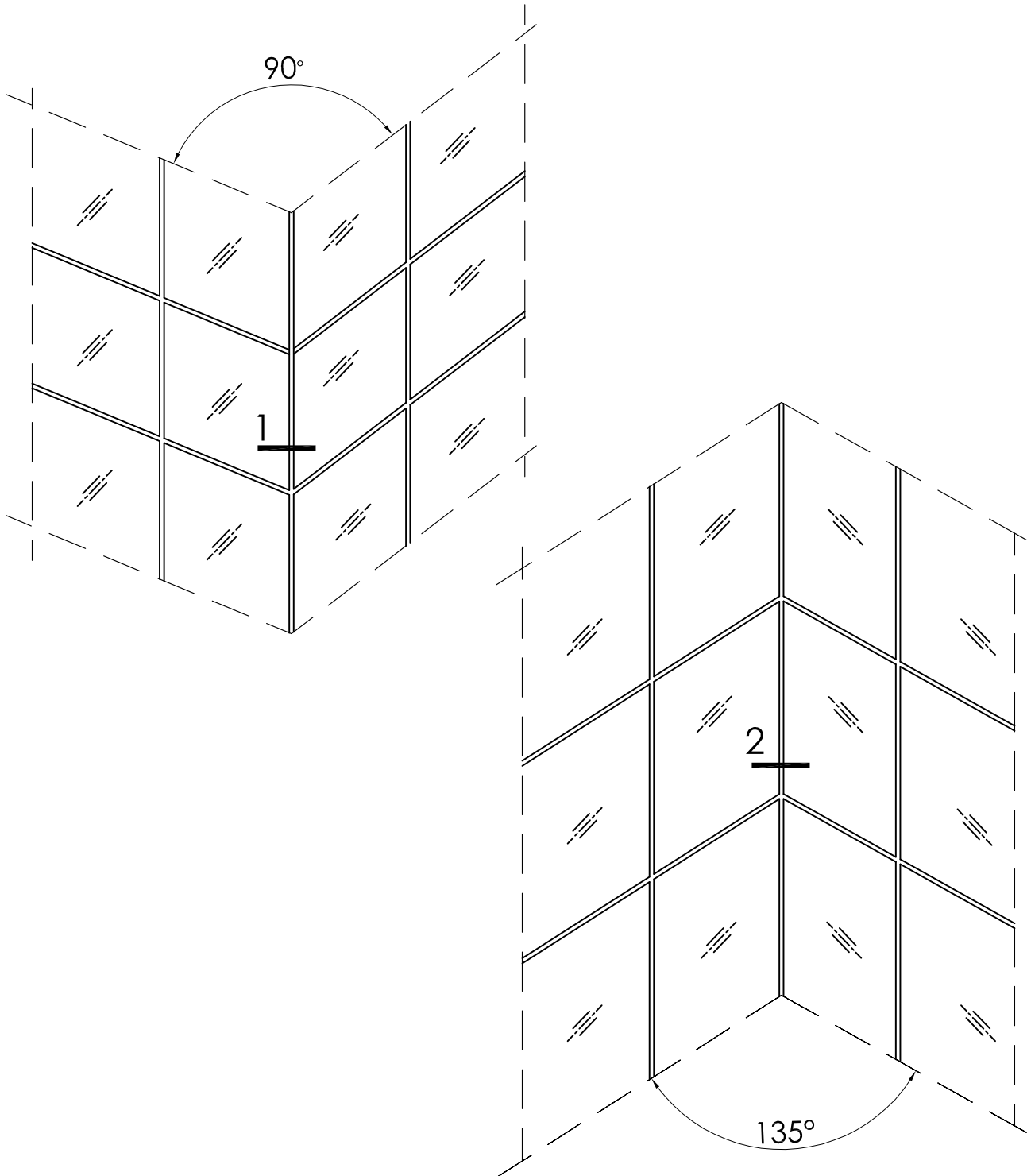


DETAIL : C-C



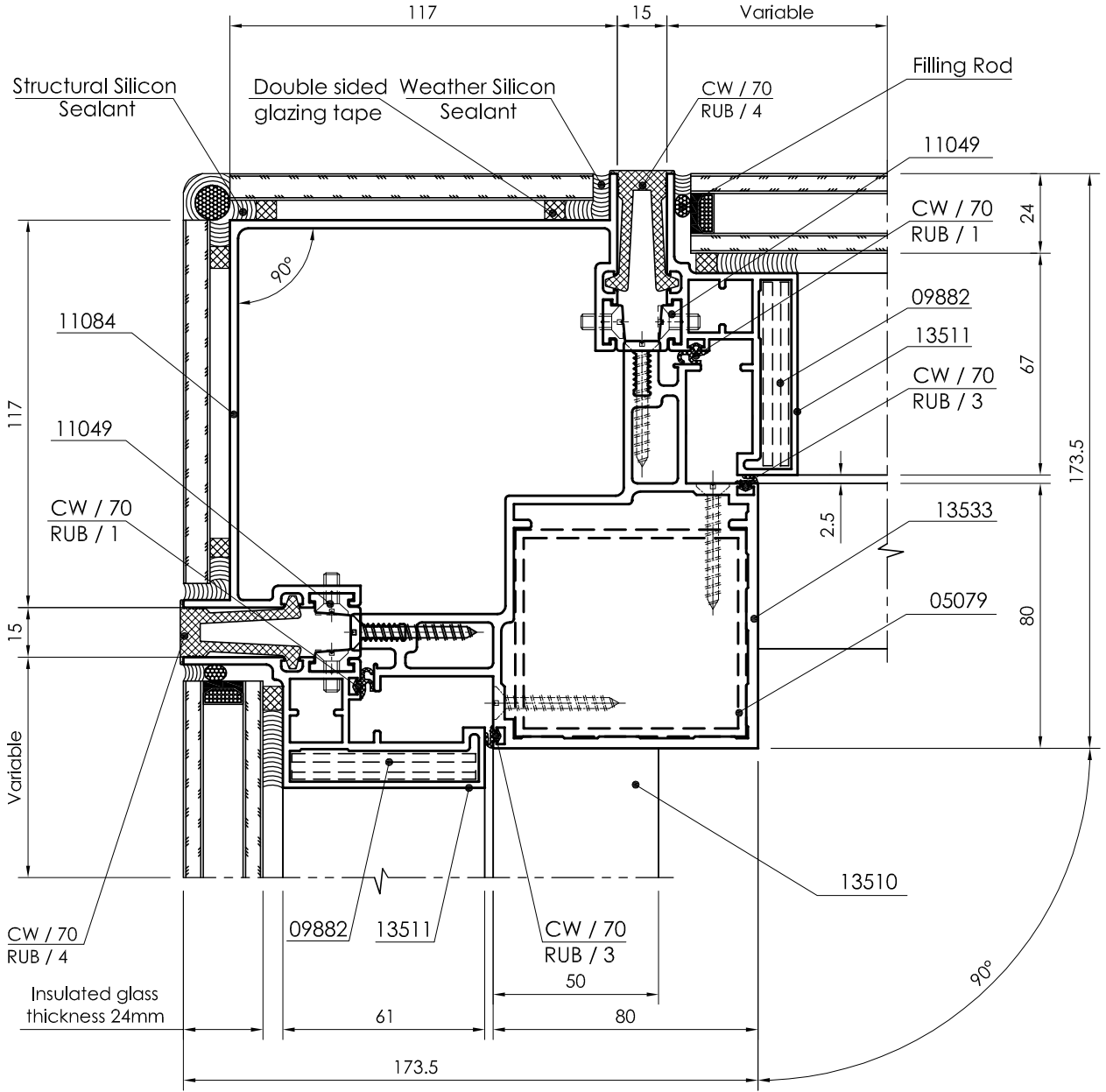
All dimensions in mm  
----- Visible area

### 70mm 4-way Structural Glazing 90° & 135° Corner



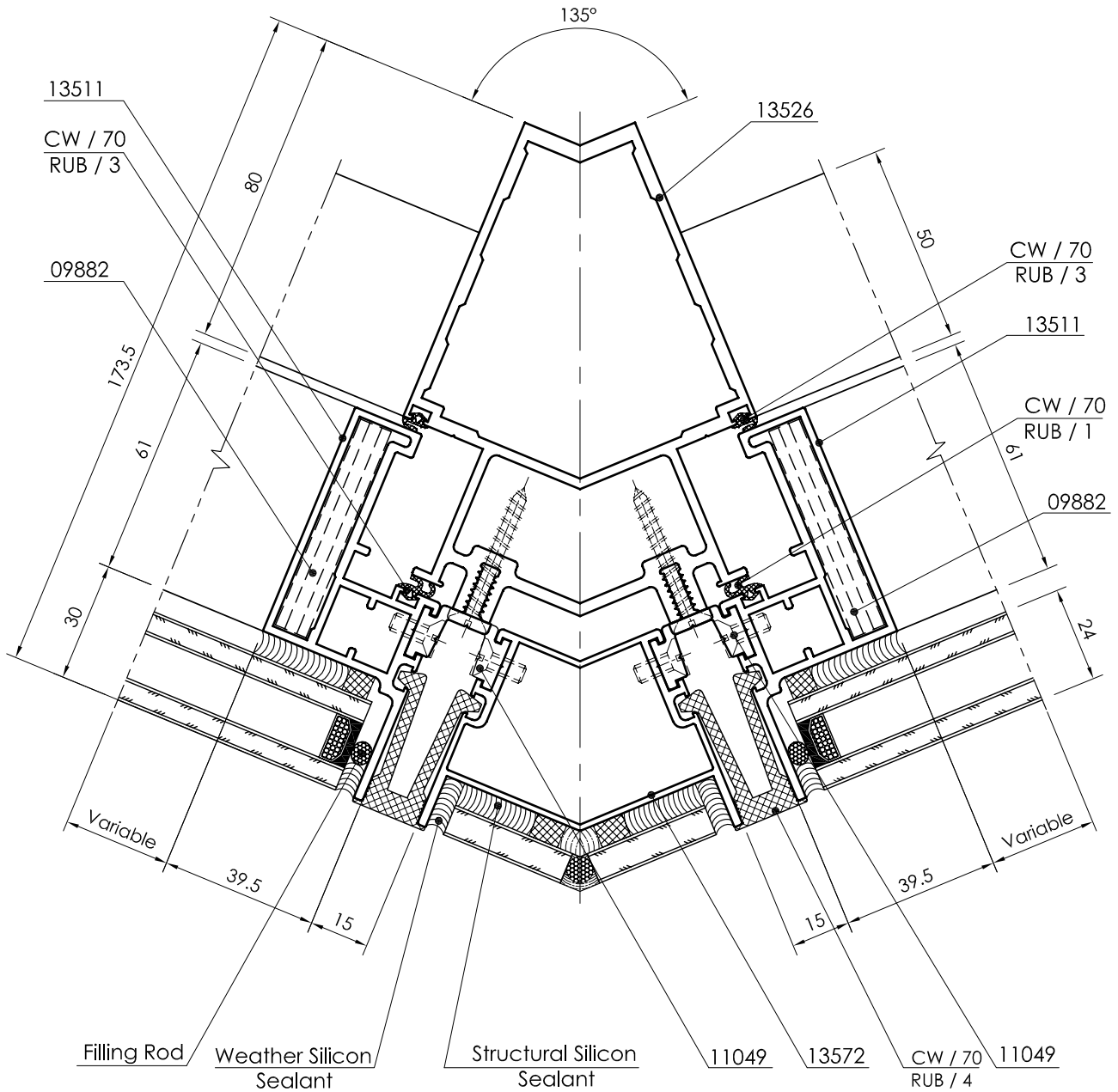
All dimensions in cross sections are shown in mm  
Profile are not necessarily shown to scale

**70mm 4-way Structural Glazing**  
 90° Corner  
 Detail - 1



All dimensions in mm  
 ----- Visible area

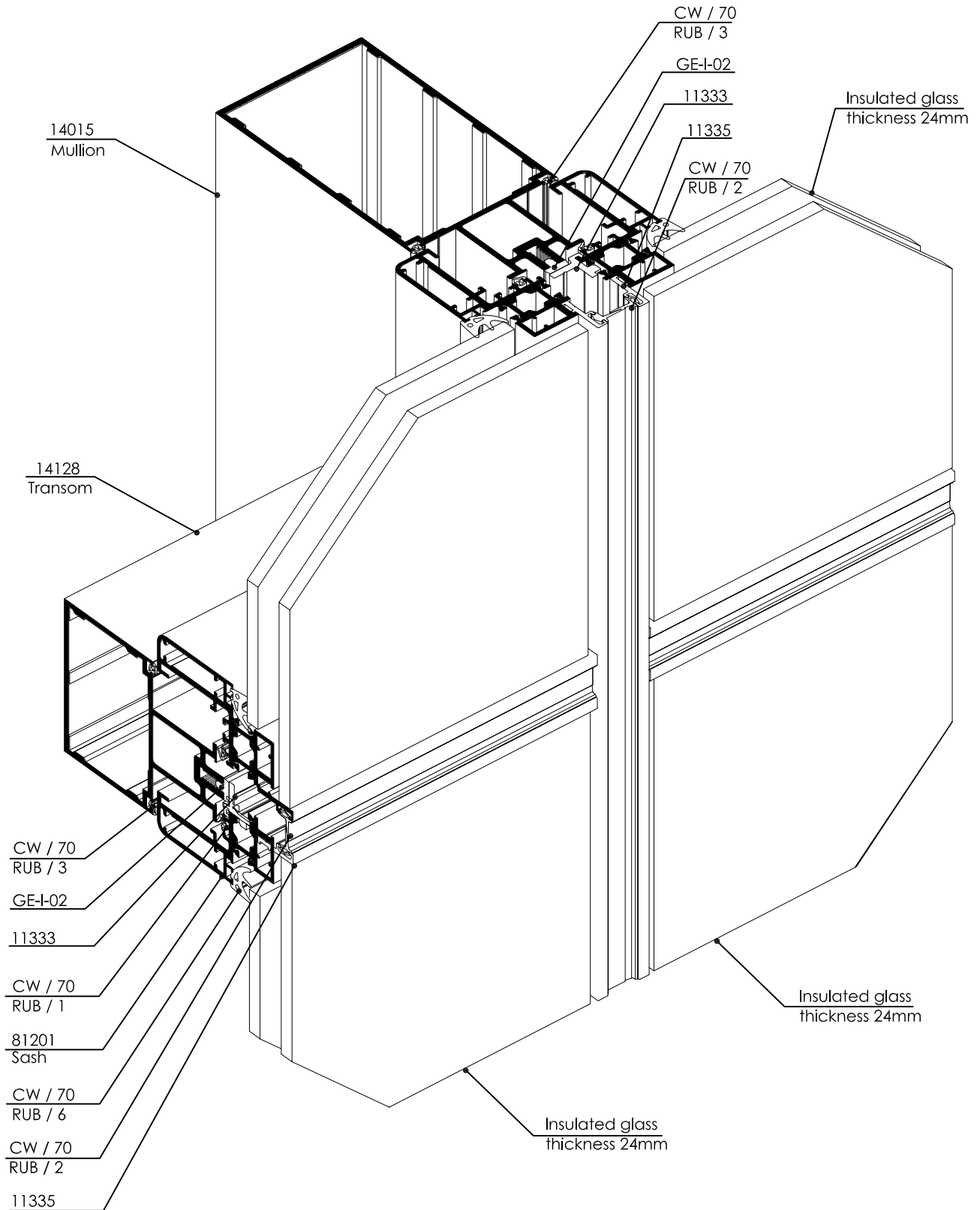
**70mm 4-way Structural Glazing**  
 135° Corner  
 Detail - 2



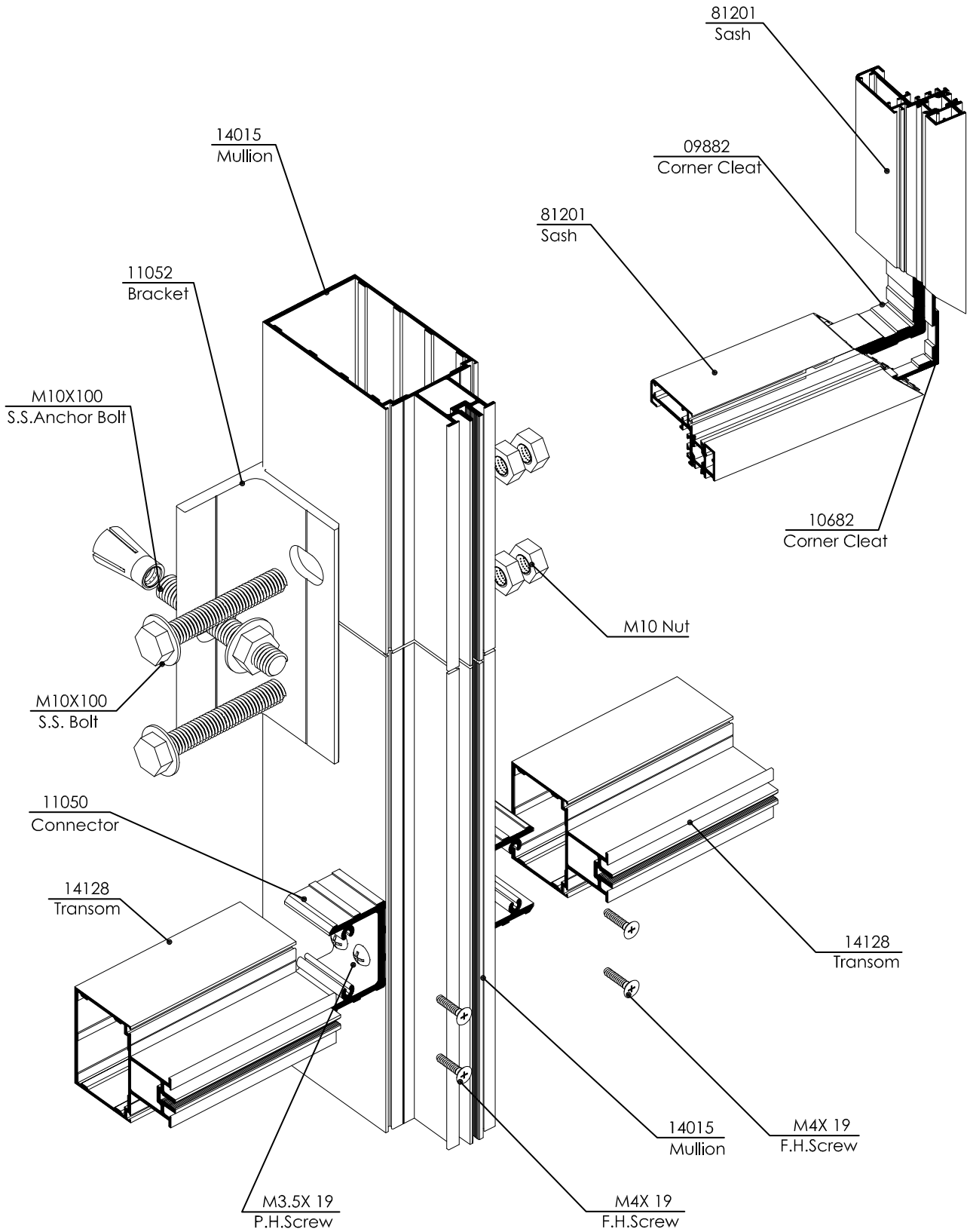
All dimensions in mm  
 Visible area\_\_\_\_\_

# 3D SECTIONS

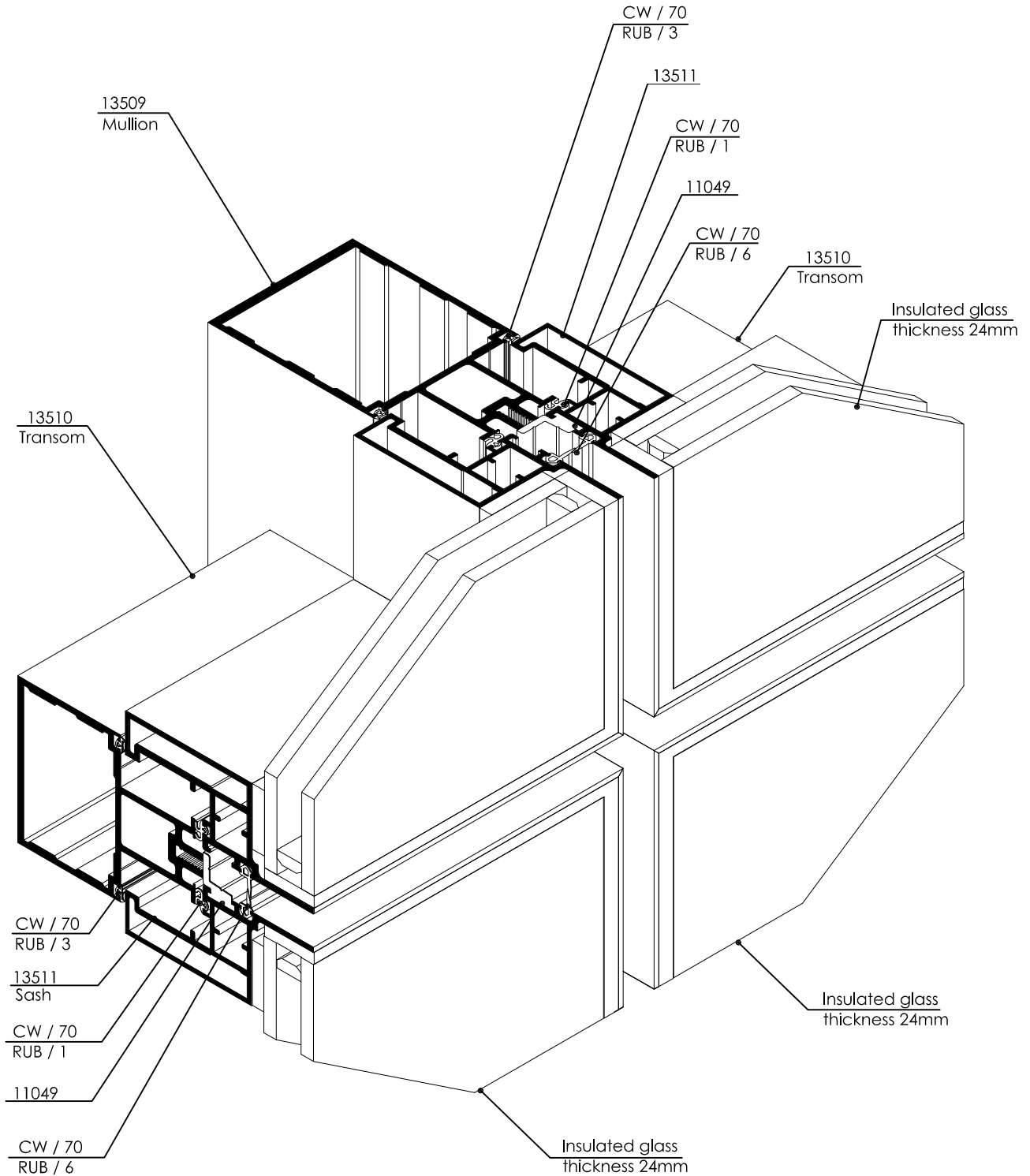
70mm 4-way Structural Glazing



70mm 4-way Structural Glazing

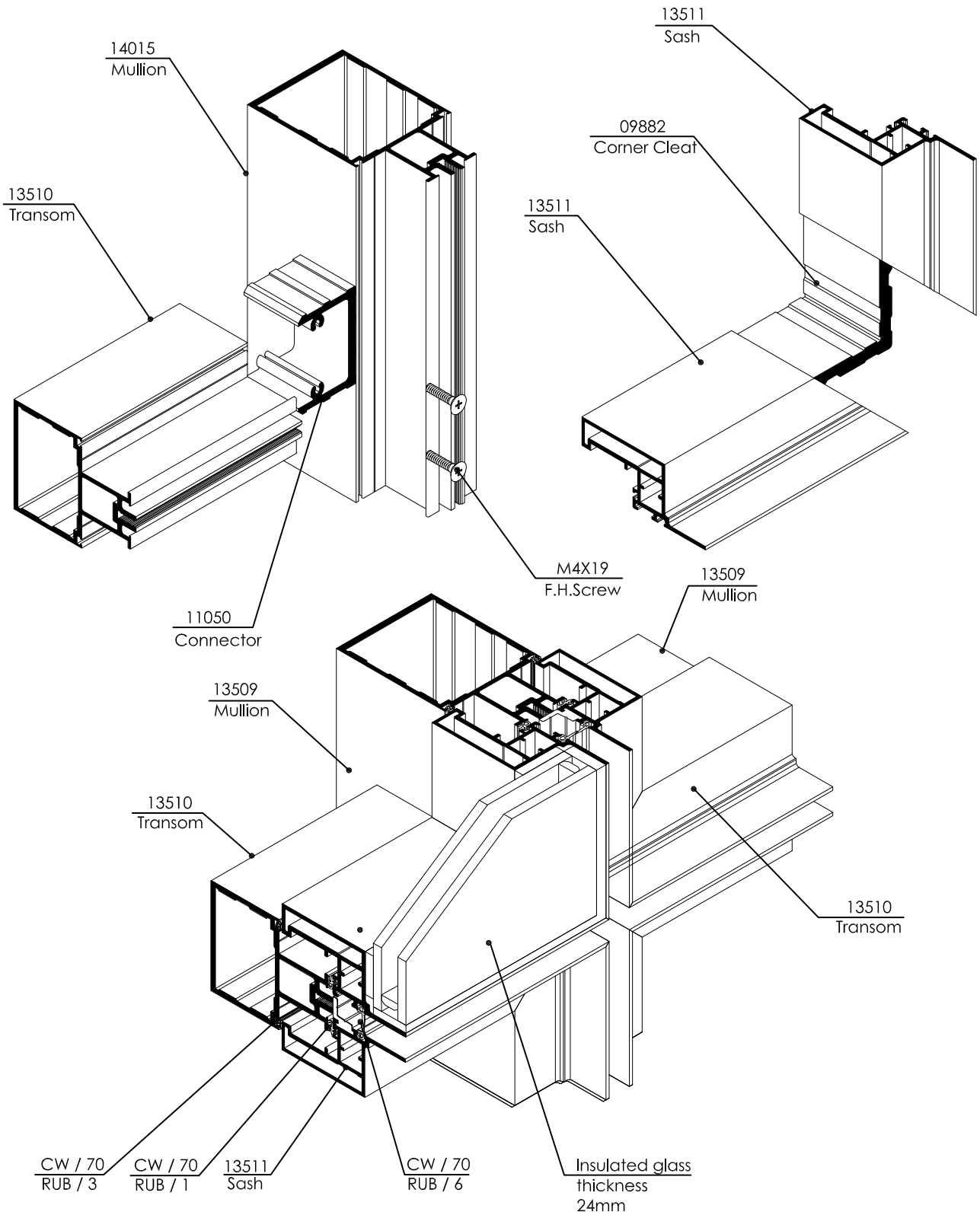


70mm 4-way Structural Glazing





70mm 4-way Structural Glazing





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