



TECHNICAL DOSSIER

POLYCARBONATE SYSTEM

PANELPIÙ 500/40



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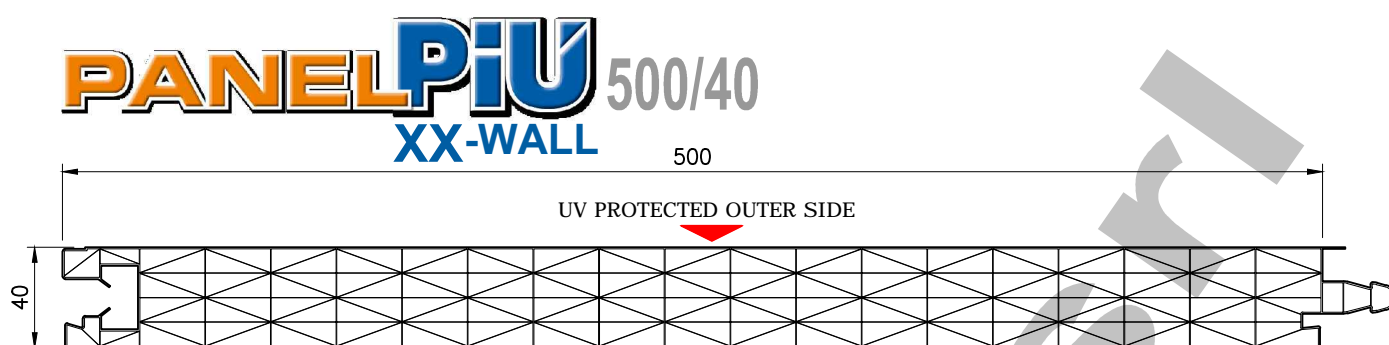
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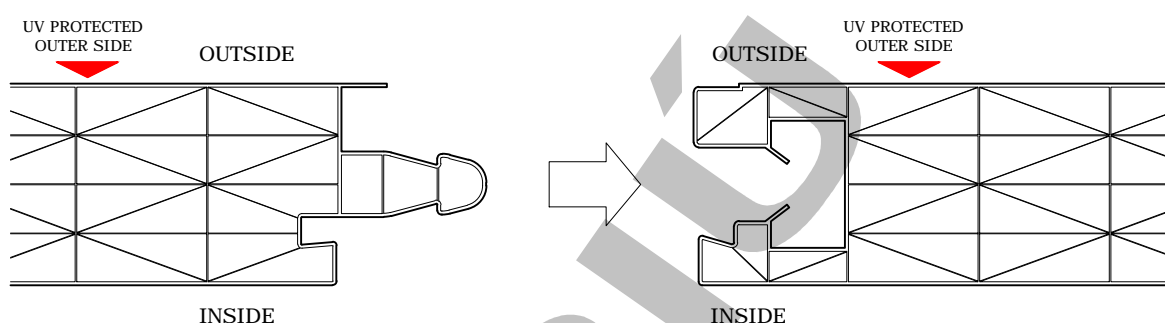


PANELPIU 500/40

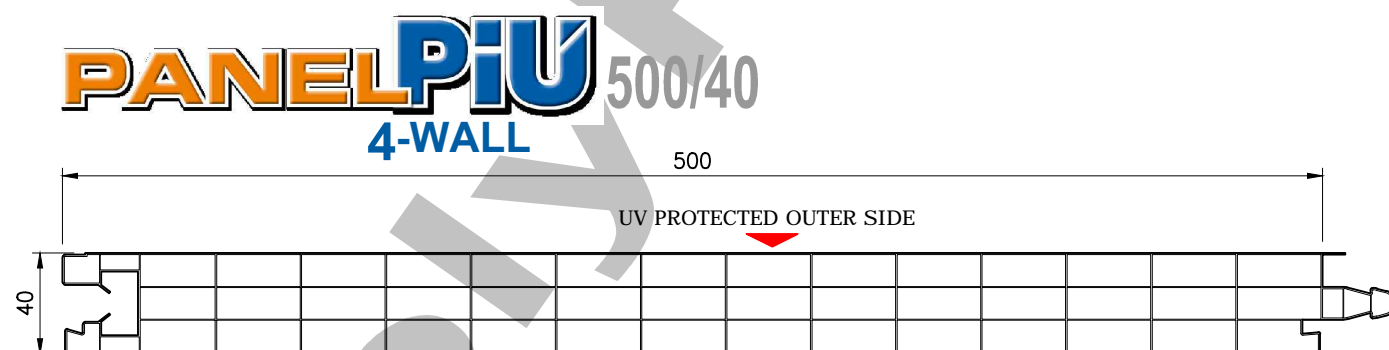
POLYCARBONATE SHEET CROSS SECTION



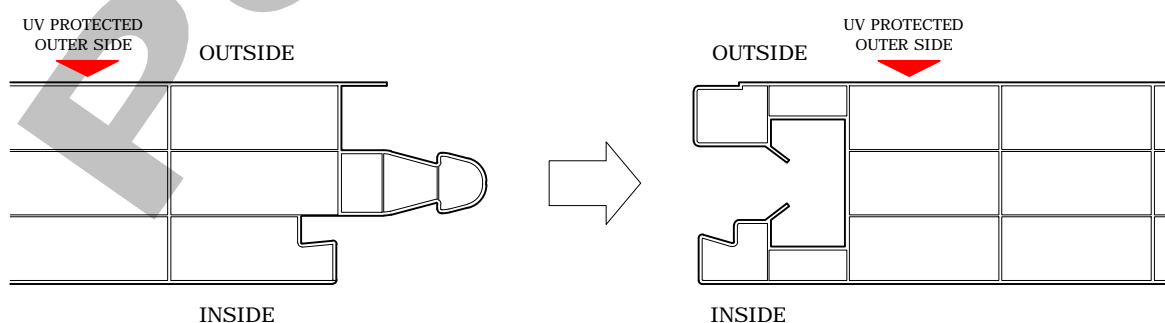
PANELPIÙ 500/40 XX-WALL SHEET CROSS SECTION



DETAIL OF TONGUE AND GROOVE JOINT



PANELPIÙ 500/40 4-WALL SHEET CROSS SECTION



DETAIL OF TONGUE AND GROOVE JOINT

Technical drawing of a rectangular frame with dimensions in millimeters (mm). The overall width is 52.6 mm and the overall height is 90 mm. The inner opening width is 43.6 mm and the inner opening height is 53.5 mm. The frame has a thickness of 1.5 mm. The bottom-left corner features a small rectangular protrusion with a width of 6.5 mm and a height of 3.5 mm. The total height of the frame, including the protrusion, is 55 mm.

Technical drawing of a U-shaped profile with the following dimensions (mm):

- Overall height: 70
- Overall width: 52.6
- Top flange width: 6.5
- Top flange height: 43.6
- Inner width: 43.6
- Bottom flange width: 5
- Bottom flange height: 47.6
- Inner height: 45.1
- Inner radius: 1.5
- Outer radius: 23
- Outer height: 29.5

Technical drawing of a profile with dimensions:

- Overall height: 113
- Top section height: 23
- Section height: 7.9
- Section height: 44.4
- Section height: 75.3
- Section height: 43.6
- Section height: 52.6
- Section height: 6.5
- Section height: 1.5
- Section height: 4.5
- Section height: 1.5
- Section height: 88.5

Technical drawing of a profile with dimensions: 6.5, 43.6, 1.5, 31.3, 9.4°, 30, 46.6, 28.2, 55, 91.1, 128.7.

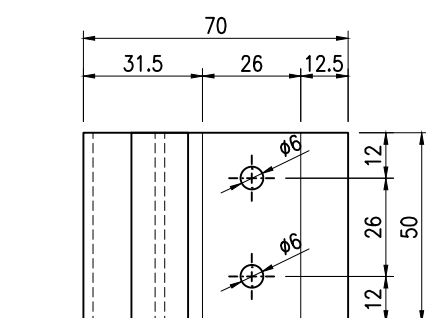
Technical drawing of a mechanical part. The drawing shows a side view of a component with a total length of 80. A vertical dimension of 1.5 is indicated on the left side. A horizontal dimension of 4 is indicated near the bottom right corner.

Technical drawing of a stepped profile with the following dimensions:

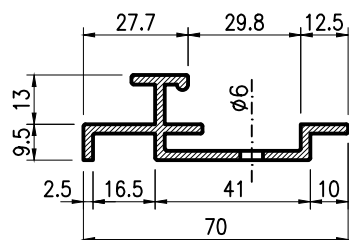
- Overall width: 80
- Overall height: 43.5
- Top horizontal segment width: 20
- Top horizontal segment height: 4.2
- Vertical segment height: 20
- Horizontal segment width: 21.9
- Horizontal segment height: 1.5
- Horizontal segment height: 1.7

Pg.4

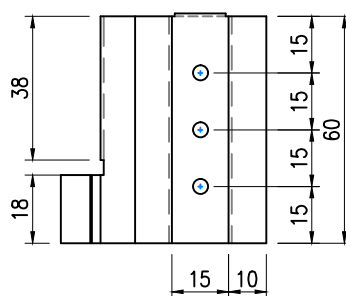
DETAIL OF ACCESSORIES



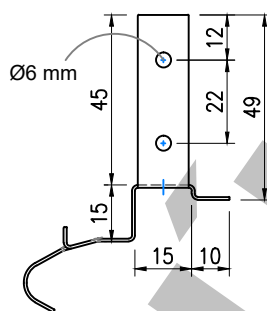
⑧a ALUMINIUM FASTENING CLAMP



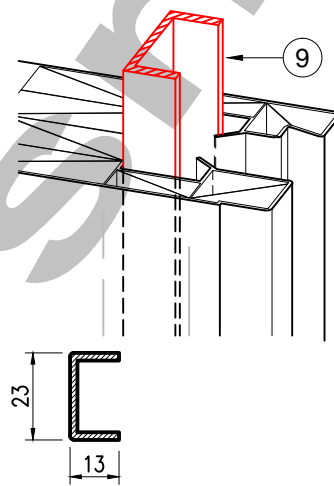
⑩ RUBBER GASKET TYPE DU153



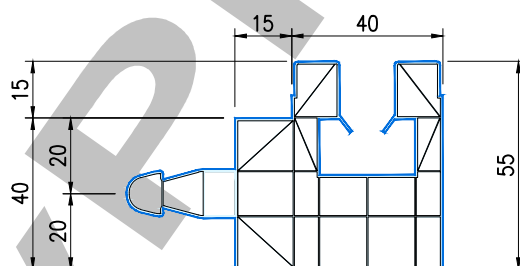
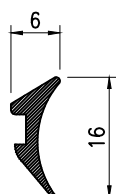
⑧b FASTENING CLAMP



NOTE:
FOR SHEETS IN LENGTHS BETWEEN 2 and 3mtr, UPON REQUEST THE REINFORCING PROFILE IS SUPPLIED ALREADY INSERTED IN THE PANELPIU' SHEET.



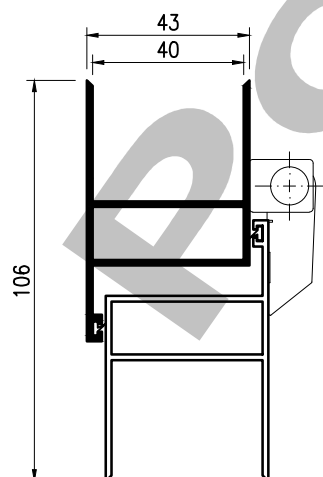
⑨ REINFORCING PROFILE



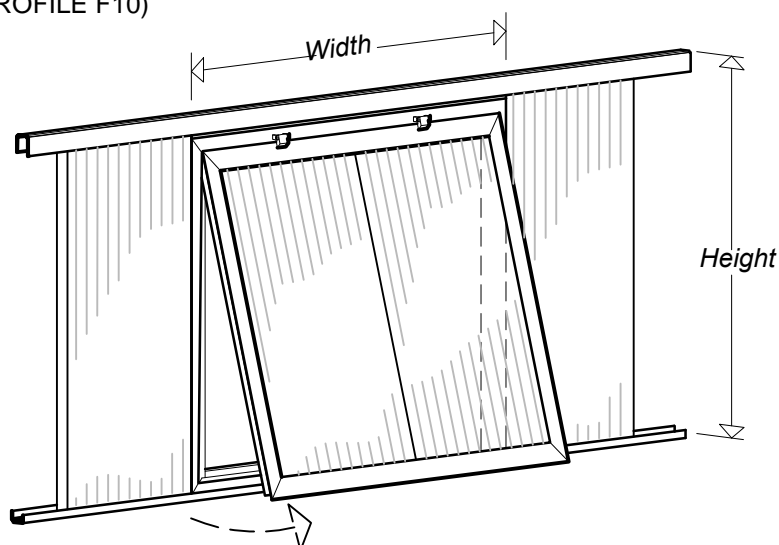
⑪ POLYCARBONATE CORNER PROFILE

OPENING WINDOW

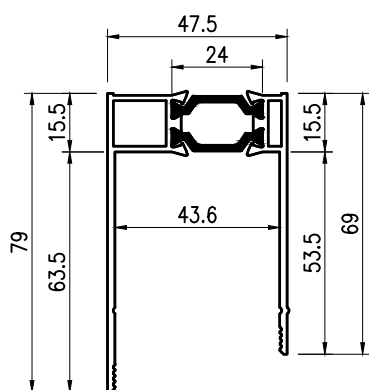
⑫ ALUMINIUM OPENING WINDOW (PROFILE F10)



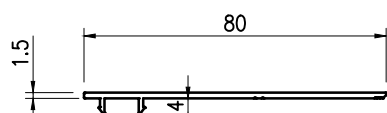
OPENING FRAME PROFILE F10



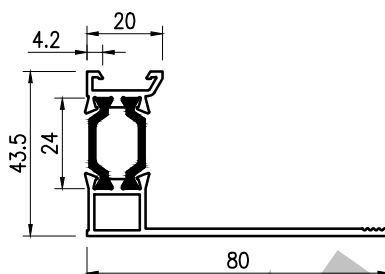
THERMAL BREAK ALUMINIUM PROFILES – SIDE VIEW



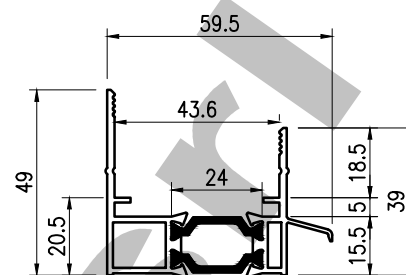
①.a UPPER PROFILE F2 TB



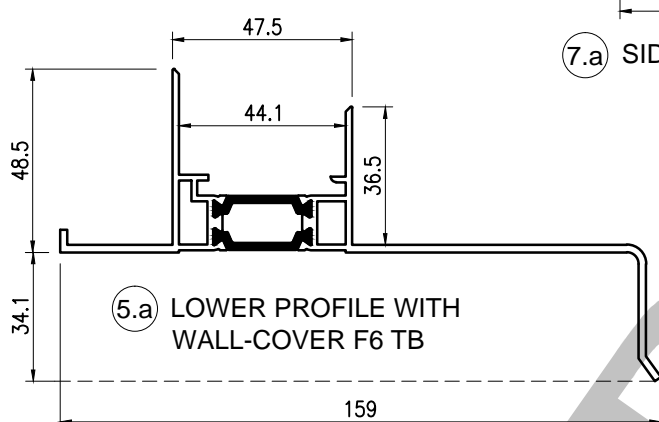
⑥ CLIP F44 FOR SIDE PROFILE



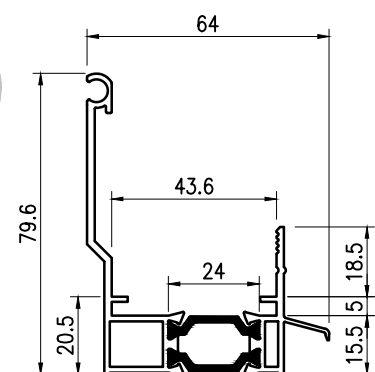
⑦.a SIDE PROFILE F3 TB



②.a LOWER PROFILE F1 TB



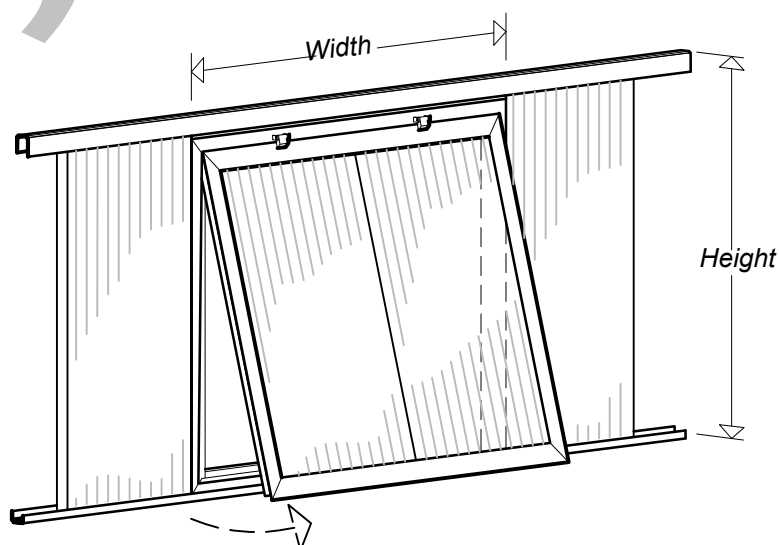
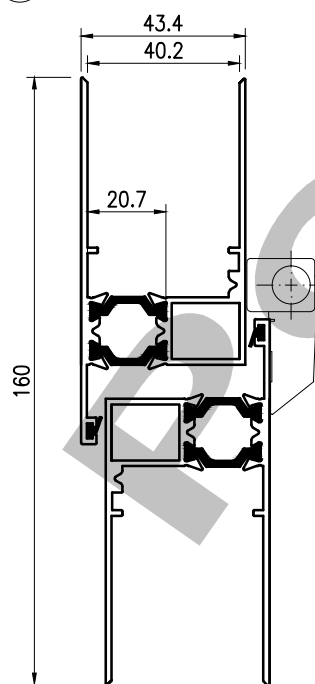
⑤.a LOWER PROFILE WITH WALL-COVER F6 TB



②.b LOWER PROFILE F1 P40 TB

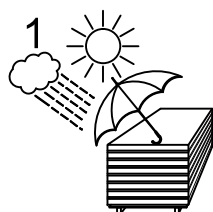
OPENING WINDOW

⑫.a TOP HUNG WINDOW FRAME IN THERMAL BREAK ALUMINIUM PROFILE F10 TB

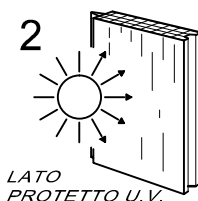


OPENING FRAME PROFILE F10 TB

TECHNICAL RECOMMENDATIONS:



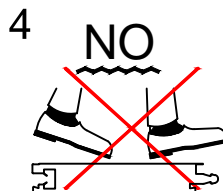
1. PROTECT THE SHEETS
BY THE SUN AND RAIN



2. INSTALL THE SHEETS
ALWAYS WITH THE UV
PROTECTED LAYER
FACING OUTWARDS

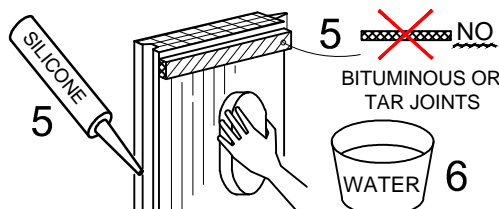


3. MULTIWALL
POLYCARBONATE SHEETS
CAN NOT BE WALKED UPON



4. DO NOT WALK ONTO THE
SHEETS AT ANY TIME.
FOLLOW SAFETY
REGULATIONS AND SAFE
METHODS OF INSTALLATION

POLYCARBONATE SUFFER THE CHEMICAL ATTACK OF SOME PRODUCTS, THEREFORE:



5. USE ONLY COMPATIBLE CLEAR SILICONE
FOR THE SEALING

6. USE ONLY WATER AND MILD DETERGENTS
FOR THE CLEANING

RESISTANCE AGAINST CHEMICALS

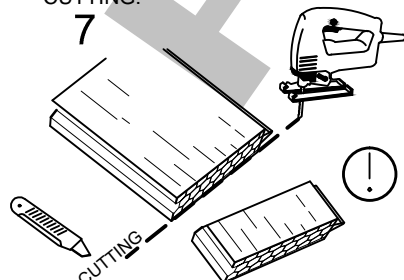
CHEMICALS	CHANGE
INORGANIC SALTS	
Sodium chloride 10%	Unchanged
Potassium nitrate 10%	Unchanged
Potassium bichromate 10%	Yellowing
Sodium sulphate 10%	Unchanged
Ammonium chloride	Unchanged
Sodium bicarbonate 10%	Surface cracking
INORGANIC ACIDS	
Hydrochloric acid 35%	Cracking
Hydrochloric acid 10%	Unchanged
Sulphuric acid 70%	Unchanged
Sulphuric acid 30%	Unchanged
Nitric acid 40%	Yellowing
Nitric acid 10%	Yellowing
Chromic acid 10%	Unchanged
Concentrated hydrofluoric acid	Unchanged
ALKALIS	
Sodium hydrate 1%	Unchanged
Sodium hydrate 10%	Light clouding
Ammonium hydrate 10%	Darkening and disintegration
Calcium hydrate 10%	Unchanged
ORGANIC ACIDS	
Acetic acid 70%	Unchanged
Acetic acid 10%	Unchanged
Formic acid 30%	Unchanged

CHEMICALS	CHANGE
Lactic acid 5%	Unchanged
Oxalic acid 10%	Unchanged
Benzoic acid 10%	Unchanged
Oleic acid 100%	Unchanged
LUBRICATING OILS	
Silicone oil	Unchanged
Paraffin oil	Unchanged
Machine oil	Unchanged
PLASTICIZERS	
Tricresyl phosphate	Light clouding
Diocetyl adipate	Unchanged
Diocetyl phthalate	Unchanged
Butyl stearate	Unchanged
Acid trimethyl esters	Unchanged
ALCOHOLS	
Methyl alcohol	Surface cracking
Ethyl alcohol 50%	Unchanged
n-Butanol	Unchanged
Ethylene glycol	Unchanged
VARIOUS	
Benzole	Rapid decomposition
Toluol	Rapid decomposition
Industrial petrol	Yellowing, opacifying and cracking
Kerosene	Unchanged
Diesel oil	Unchanged
n-Heptane	Unchanged
Cyclohexane	Unchanged

CHEMICALS	CHANGE
Methyl isobutyl ketone	Clouding and softening
Butyl acetate	Clouding and softening
Methyl methacrylate	Clouding and softening
Acrylonitrile decomposition	Rapid
Vinyl acetate	Clouding and softening
Styrole	Clouding and softening
Ethyl ether (5 °C)	Swelling
Diethylenetriamine	Slow decomposition
Ethylenediamine	Slow decomposition
Triethanolamine	Surface cracking
Phenol 5%	Yellowing and opacifying
Cresol	Unchanged
Formalin	Unchanged
Hydrogen dioxide 10%	Light yellowing
Triammoniumcitrate (pH = 9)	Unchanged
Triammoniumcitrate (pH = 5)	Unchanged

Testing temperature = + 23 °C

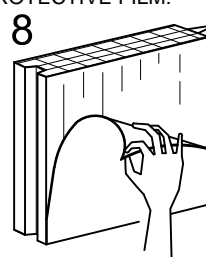
CUTTING:



THE PANELPIU' SHEETS ARE
SUPPLIED TO THE EXACT LENGTH
REQUIRED AND SEALED AT THE ENDS
WITH AN ALUMINIUM FOIL TAPE

7. CUTTING OF THE SHEETS CAN BE
EXECUTED ON SITE BY MEANS OF A
HACK SAWING MACHINE (1) OR OF A
CUTTER (2). SEAL THE OPEN CELLS
AFTER THE CUTTING.

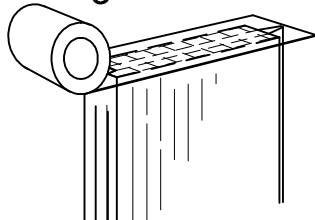
PROTECTIVE FILM:



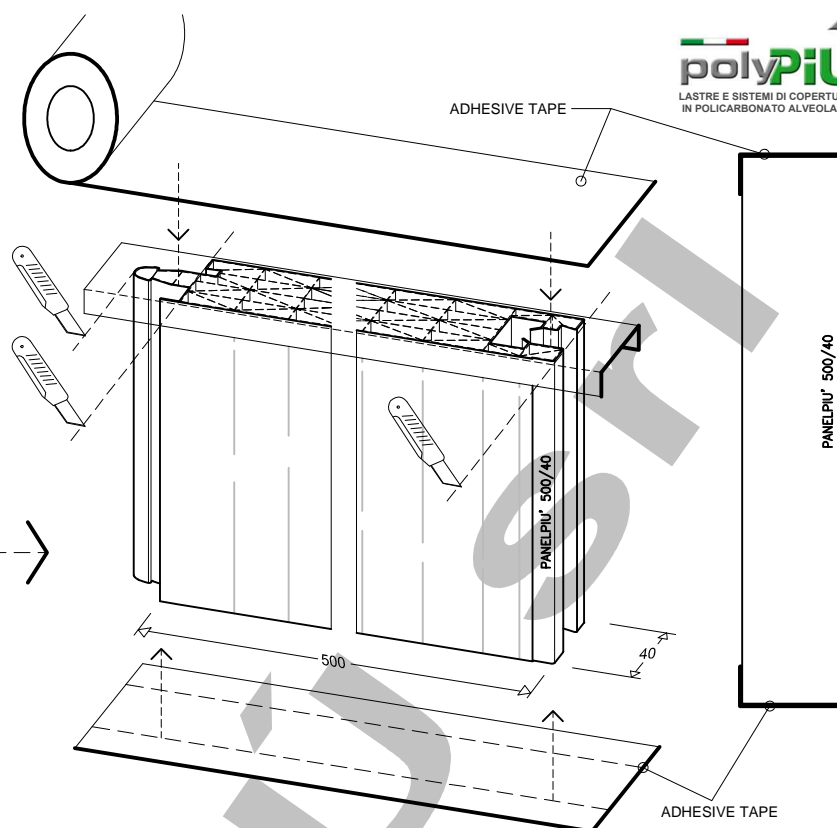
8. TAKE OFF THE
PROTECTIVE FILM
BEFORE THE
INSTALLATION

SEALING:

9

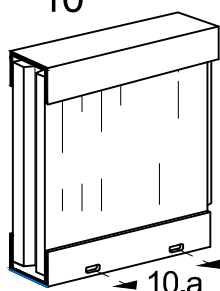


9. SEAL THE OPEN CELLS WITH AN ADHESIVE ALUMINIUM TAPE



PROFILES:

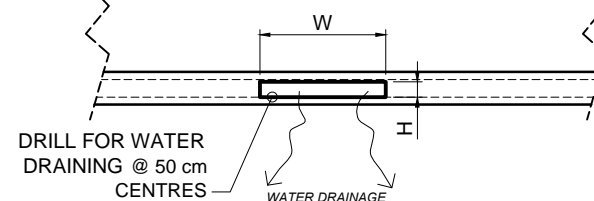
10



10. PROTECT THE SEALING WITH AN UPPER AND A LOWER PROFILE

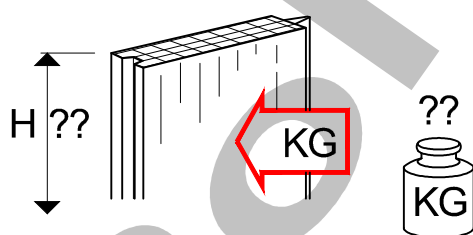
10.a LOWER PROFILES MUST BE DRILLED FOR WATER DRAINING

LOWER PROFILE



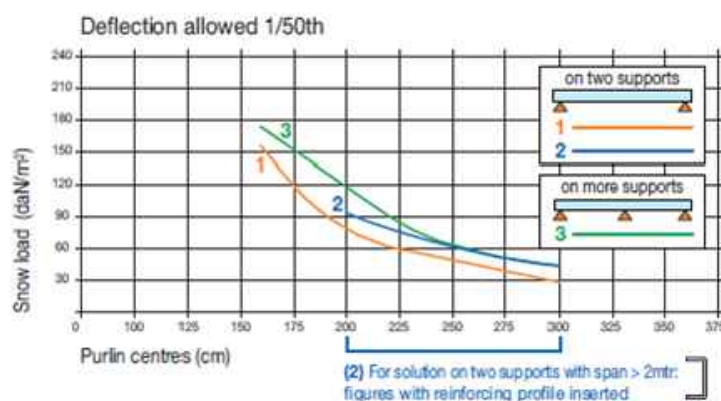
LOADINGS AND SPACINGS:

11



11. CHECK OUR TECHNICAL LITERATURE TO DETERMINE LOADING AND SPACING OF THE WHOLE SYSTEM

LOADING TABLE PANELPIÙ 500/40 XX-wall



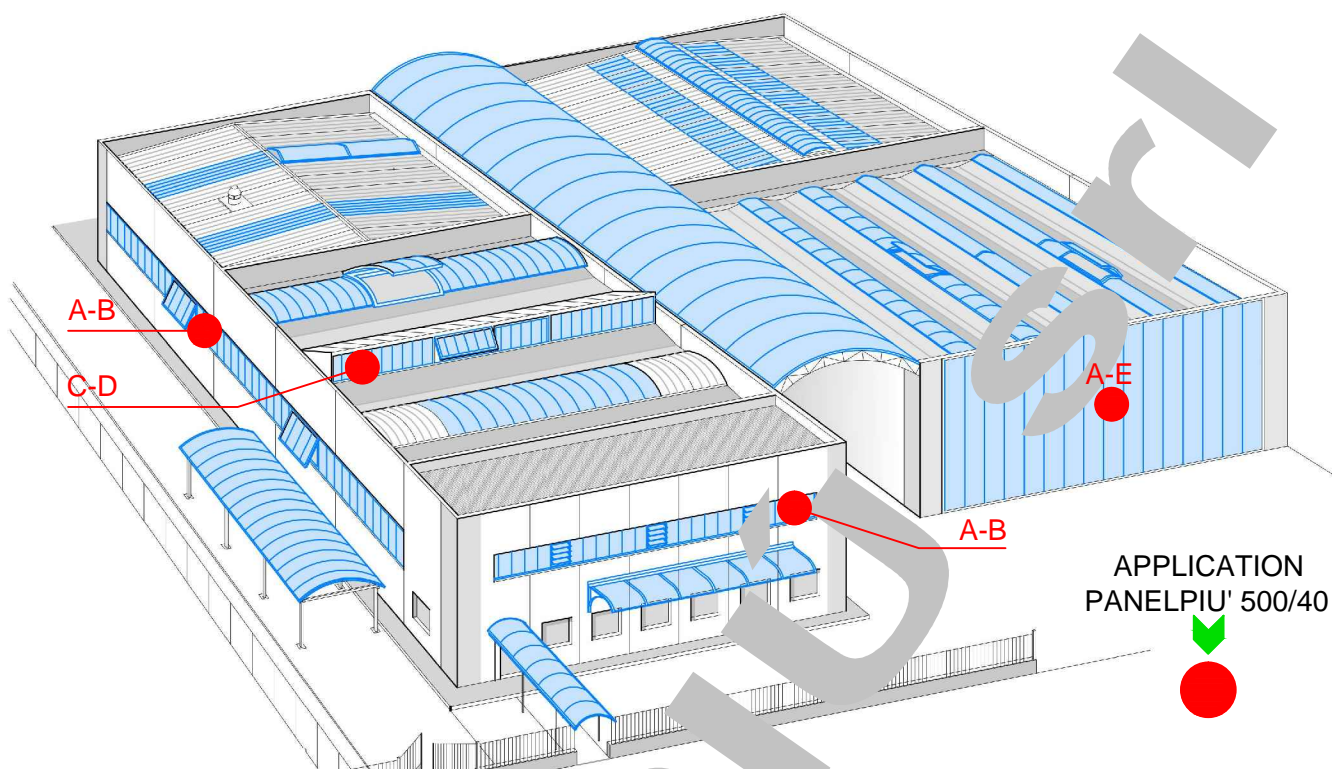
WARRANTY & CERTIFICATIONS:

12



THE POLYPIU' PRODUCTS ARE COVERED BY A 10-YEAR WARRANTY – PLEASE CHECK THE TERMS OF OUR WARRANTY FOR MORE DETAILS.
PLEASE CONTACT OUR TECHNICAL DEPT. FOR MORE DETAILS ON THE CERTIFICATIONS.

APPLICATIONS PANELPIÙ 500/40



- ◊ **A** VERTICAL GLAZING
- ◊ **A1** VERTICAL GLAZING WITH MIDDLE PURLIN

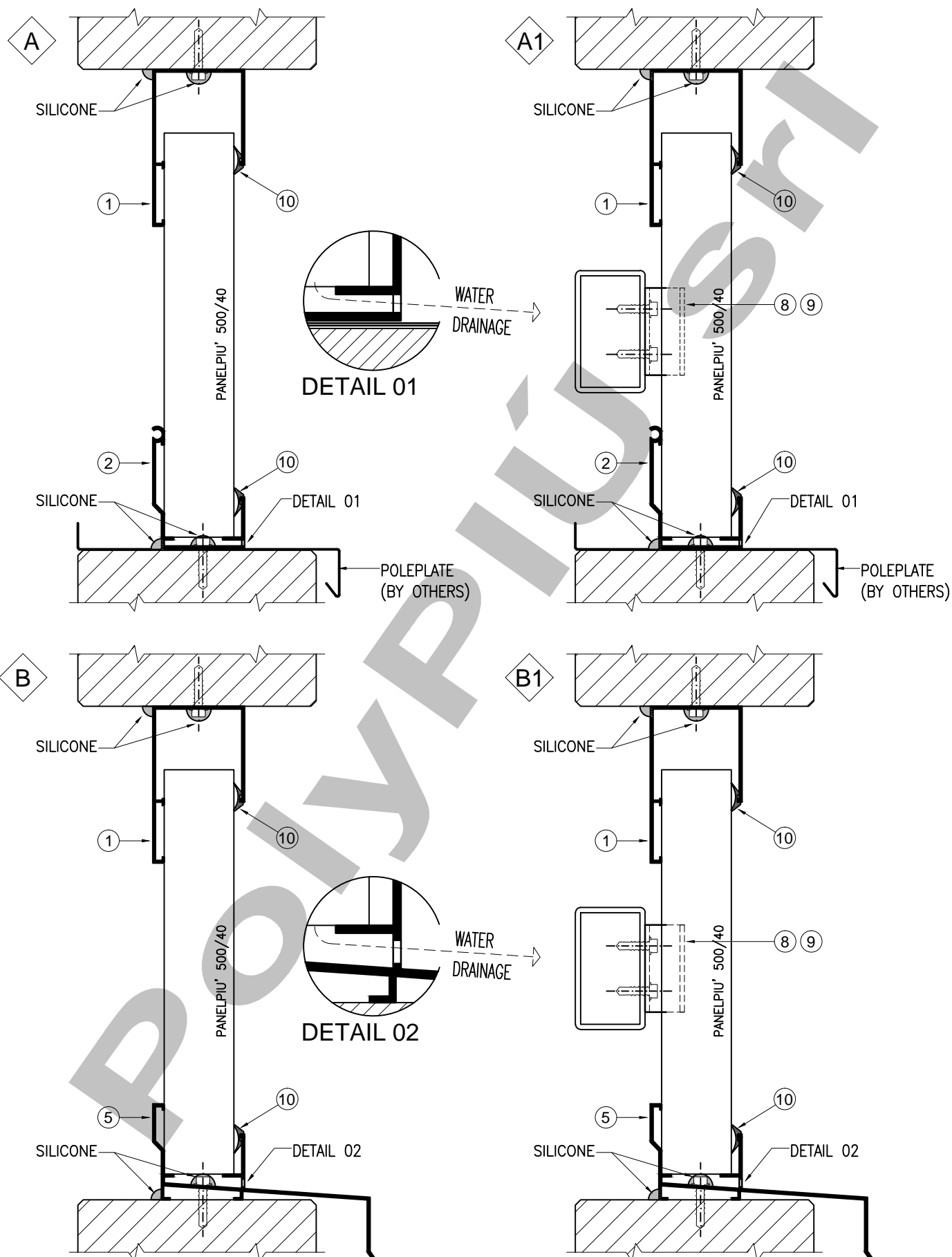
- ◊ **B** VERTICAL GLAZING WITH LOWER PROFILE WITH WALL - COVER
- ◊ **B1** VERTICAL GLAZING WITH LOWER PROFILE WITH WALL - COVER AND MIDDLE PURLIN

- ◊ **C** NORTHLIGHT WITH SLOPED UPPER PROFILE AND VERTICAL LOWER SUPPORT
- ◊ **C1** NORTHLIGHT WITH SLOPED UPPER PROFILE AND VERTICAL LOWER SUPPORT WITH MIDDLE PURLIN

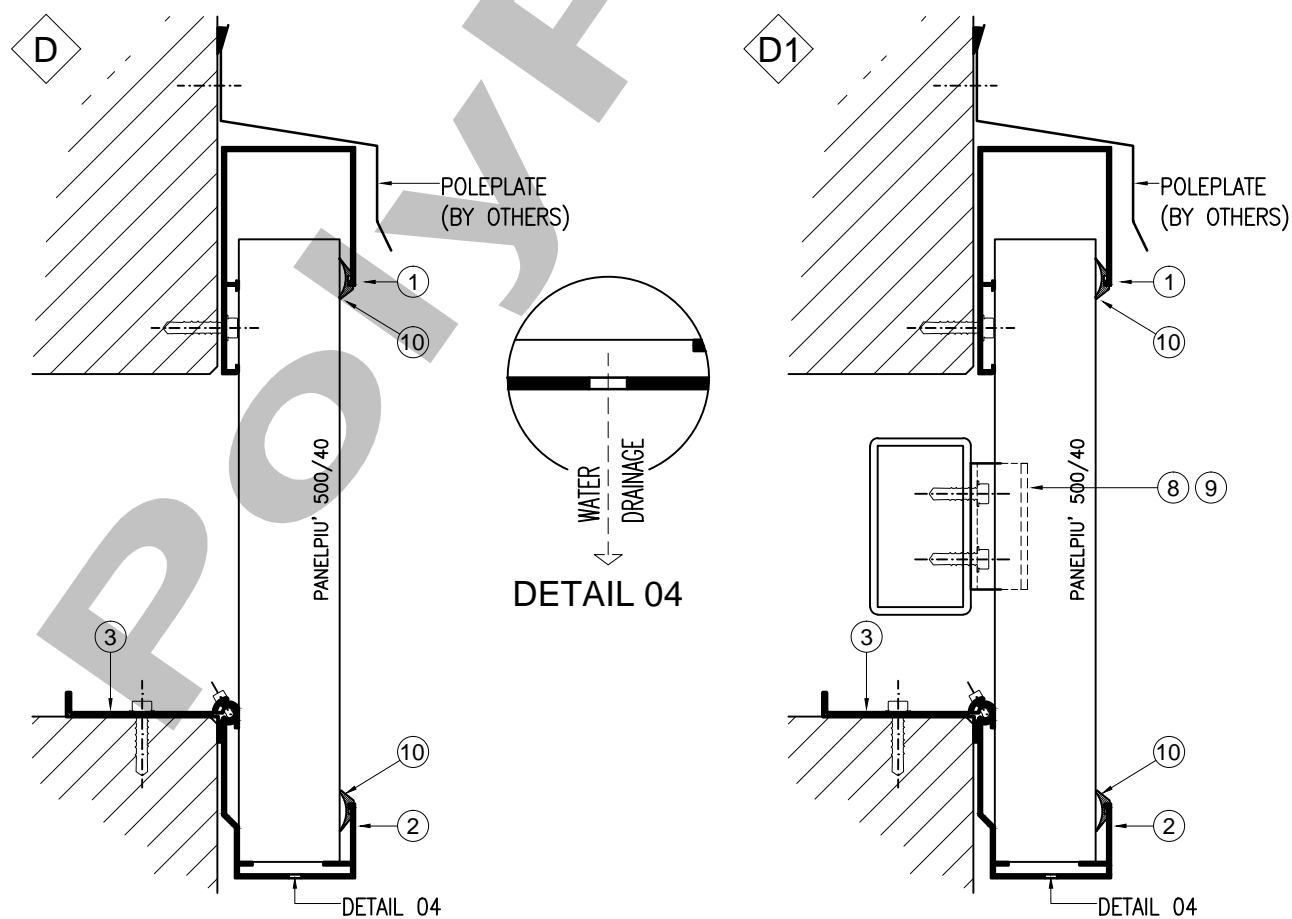
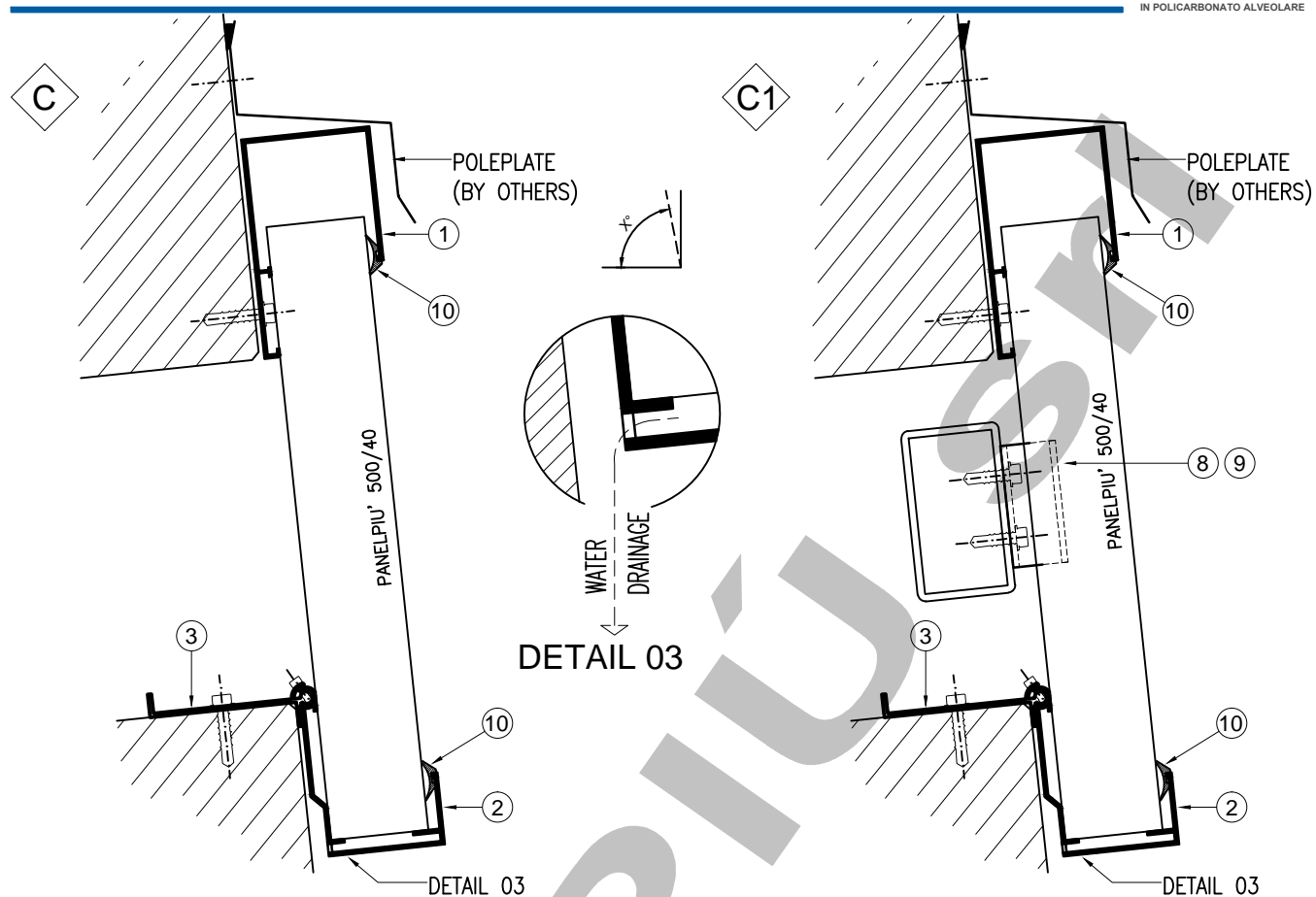
- ◊ **D** OUTER VERTICAL GLAZING
- ◊ **D1** OUTER VERTICAL GLAZING WITH MIDDLE PURLIN

- ◊ **E** VERTICAL GLAZING WITH MIDDLE PURLIN AND INTERMEDIATE PROFILE
- ◊ **E1** VERTICAL GLAZING WITH MIDDLE PURLIN AND INTERMEDIATE PROFILE AND LOWER PROFILE WITH WALL - COVER

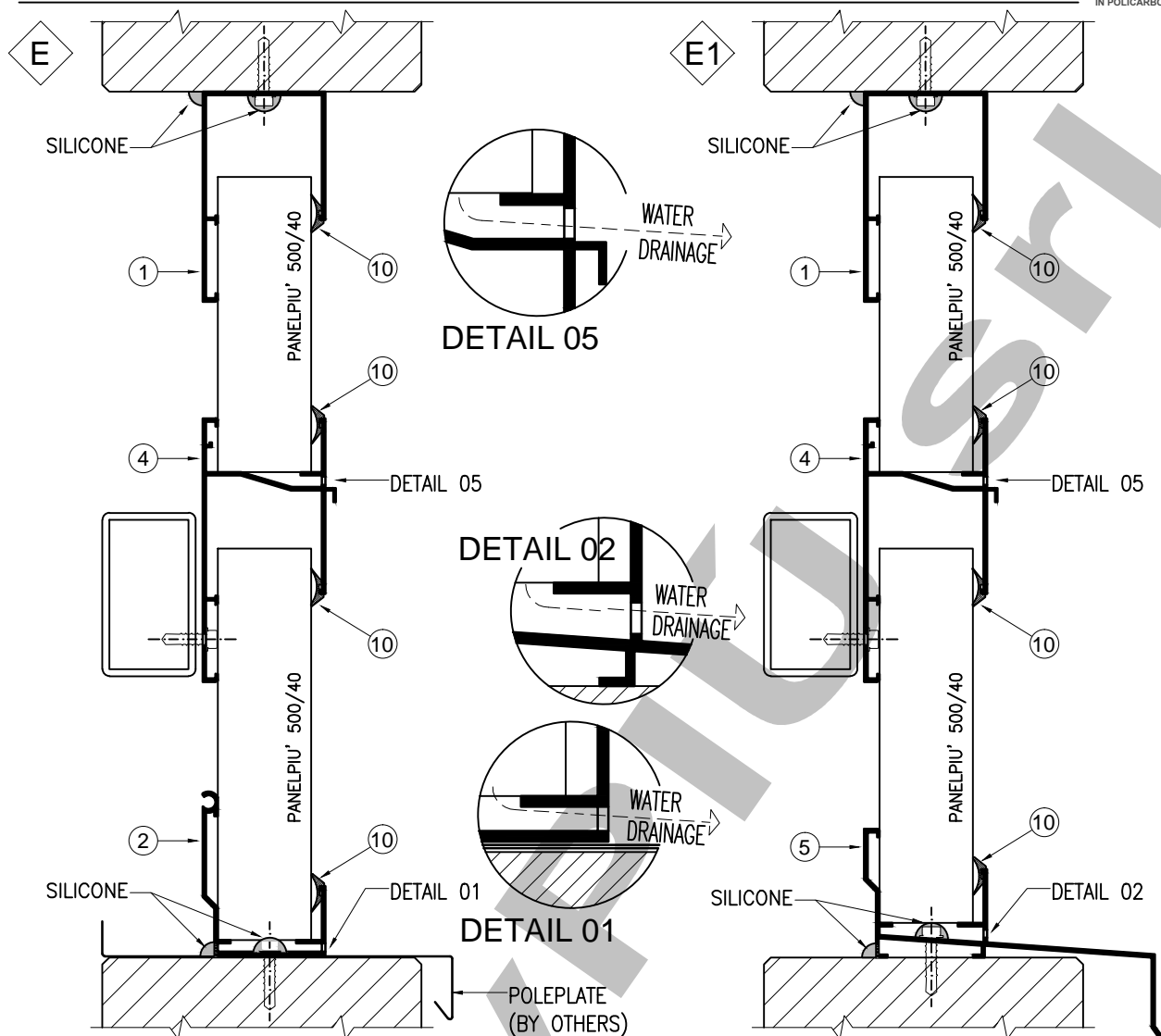
APPLICATIONS - SIDE VIEW



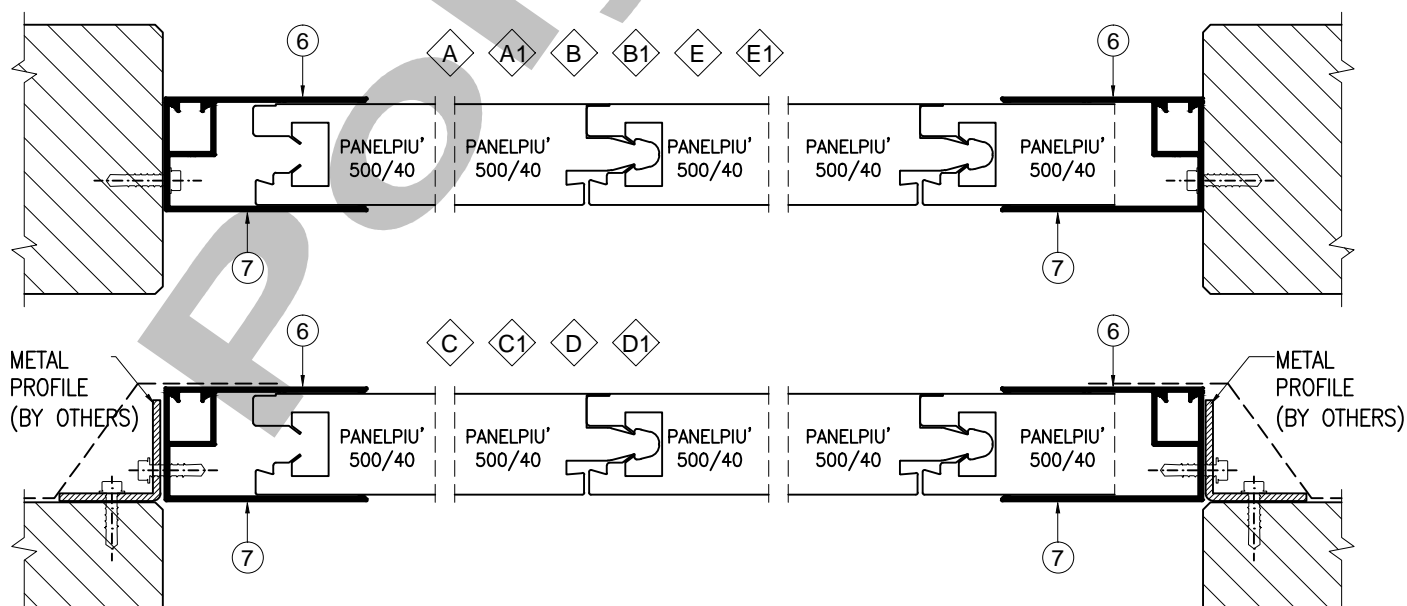
APPLICATIONS - SIDE VIEW



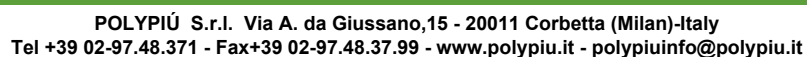
APPLICATIONS - SIDE VIEW



APPLICATIONS - TOP VIEW

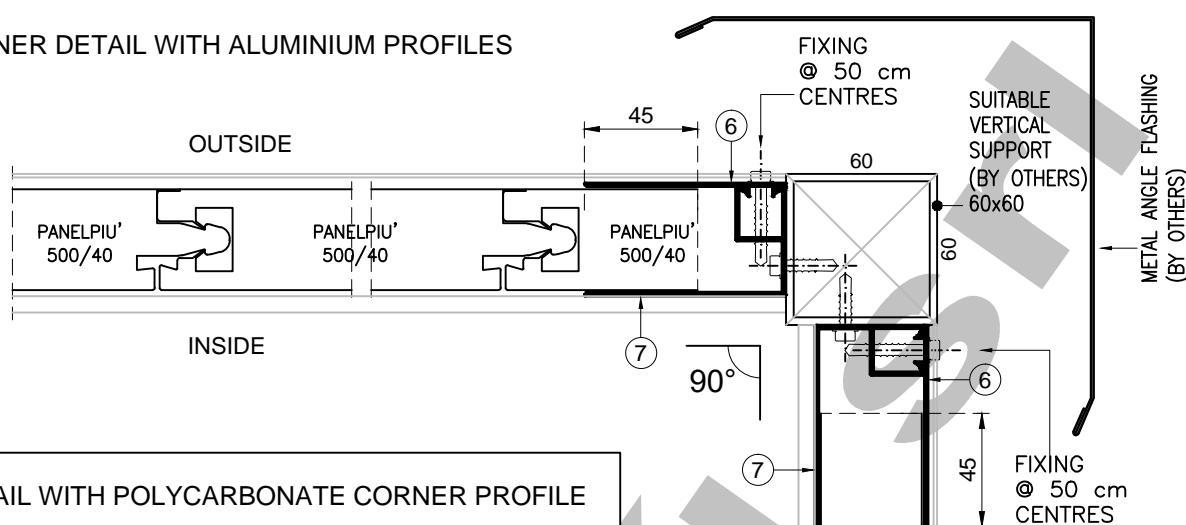


LASTRE E SISTEMI DI COPERTURA
IN POLICARBONATO ALVEOLARE

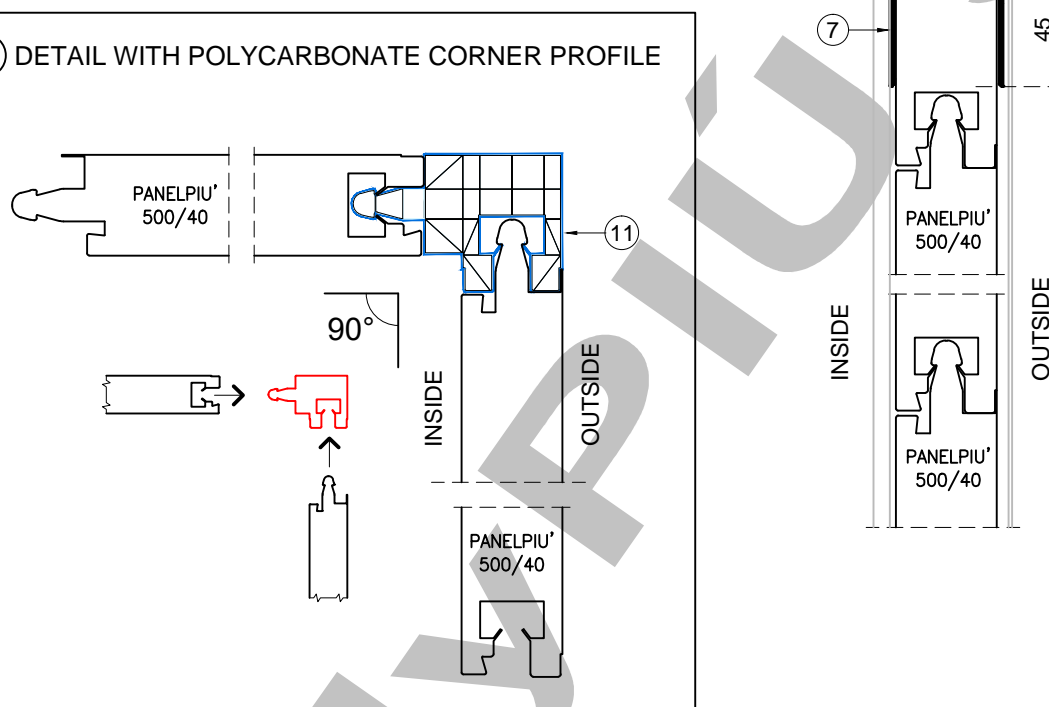


EXTERNAL CORNER

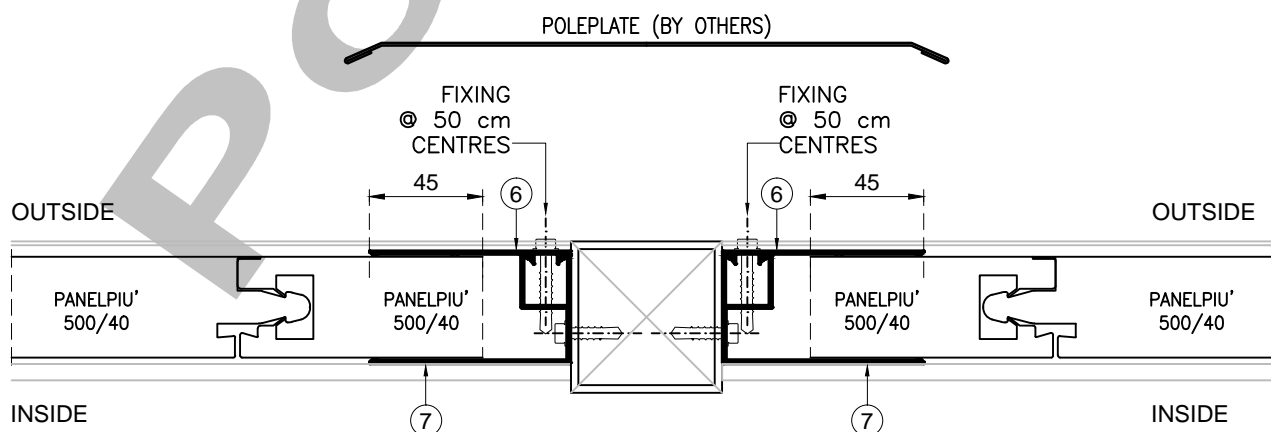
(A) CORNER DETAIL WITH ALUMINIUM PROFILES



(B) DETAIL WITH POLYCARBONATE CORNER PROFILE



REALIZATION OF INTERRUPTION OF GLAZING OR OF EXPANSION JOINT

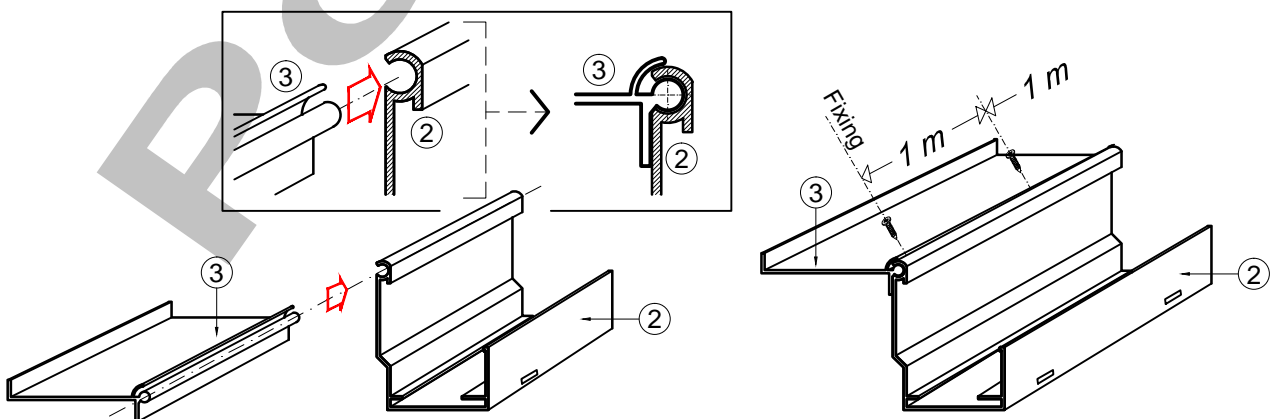
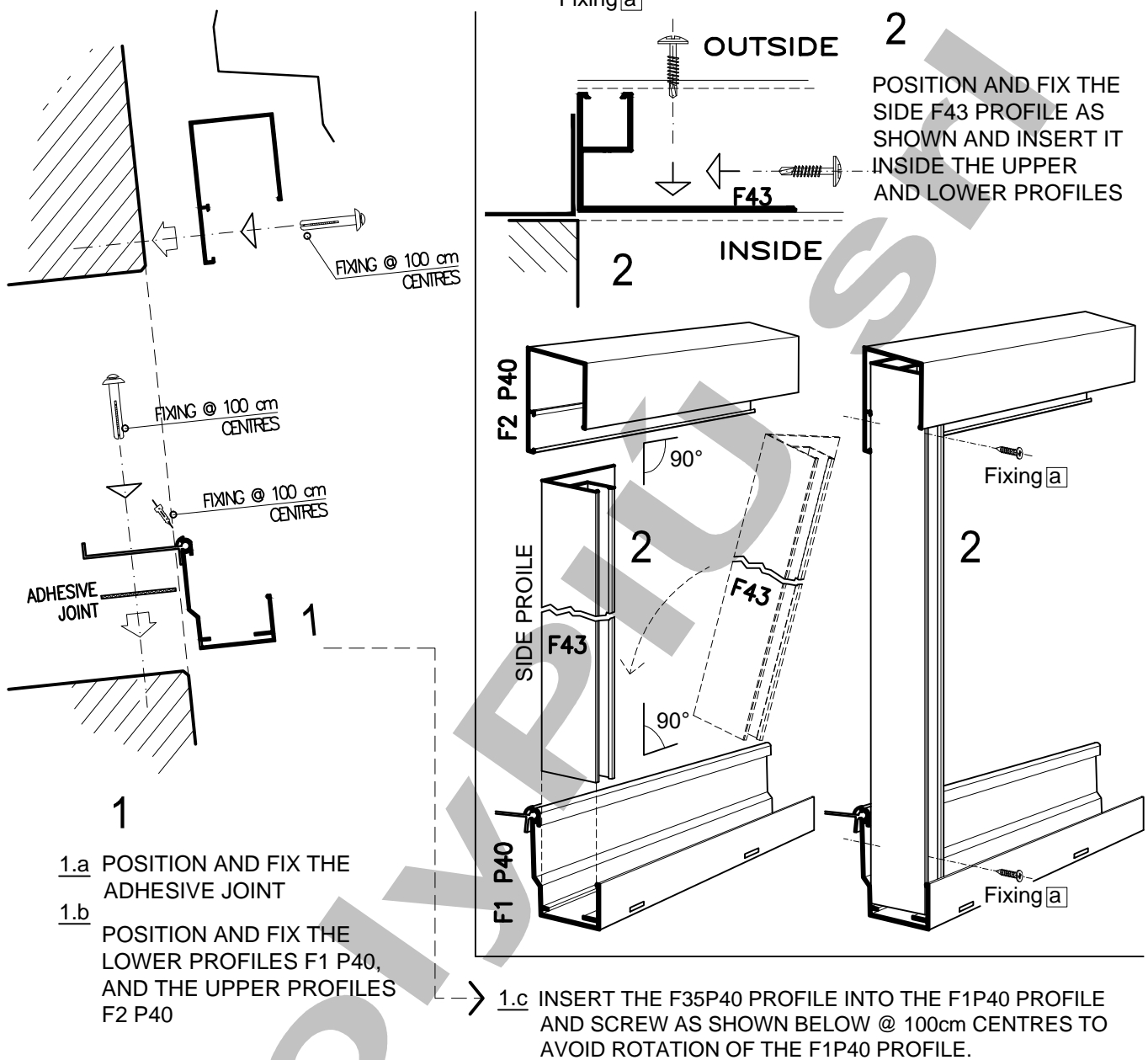


Phase 1/3 - VERTICAL GLAZING



TYPICAL INSTALLATION GUIDE

Phase 1/3 -NORTHLIGHT



TYPICAL INSTALLATION GUIDE

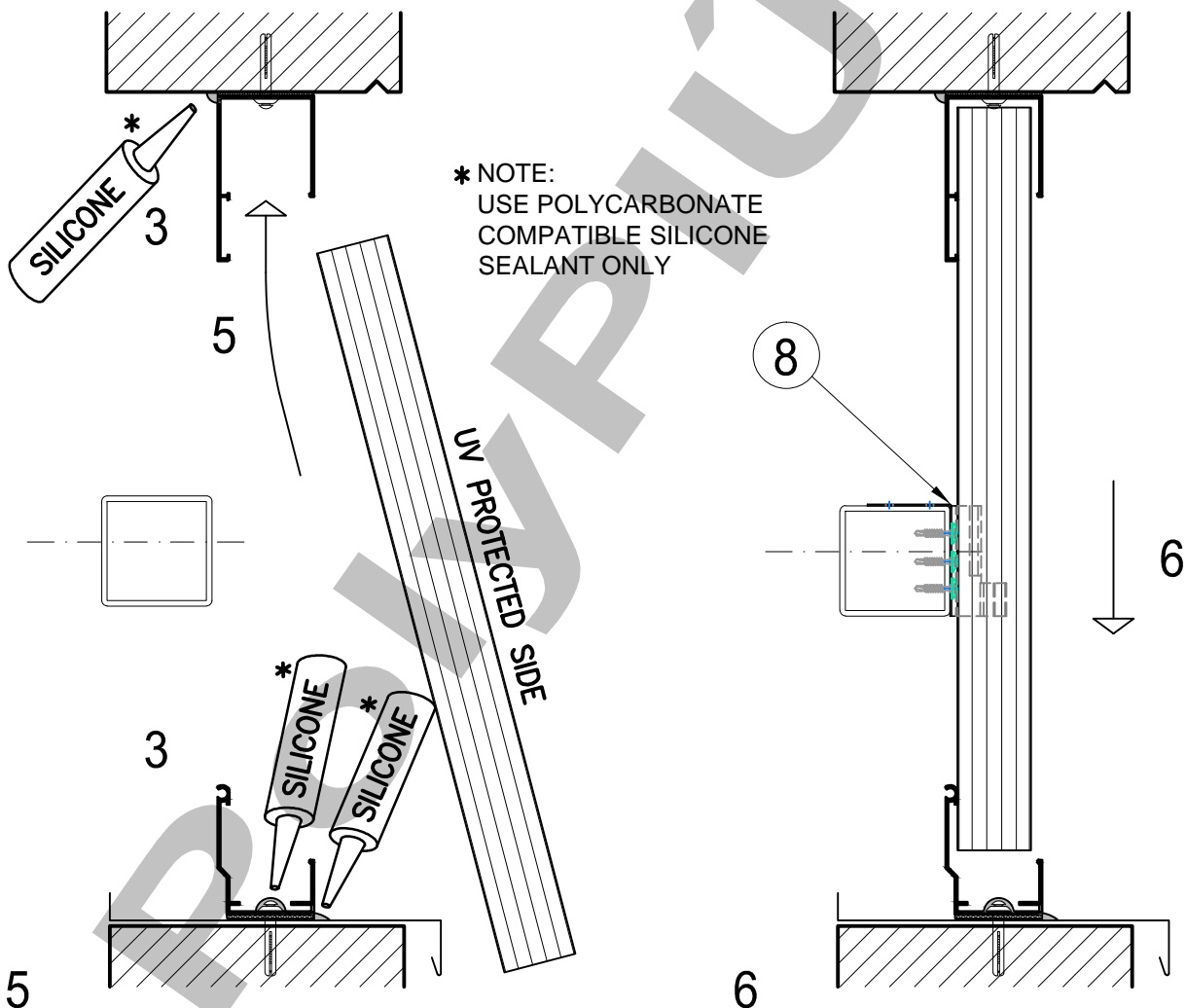
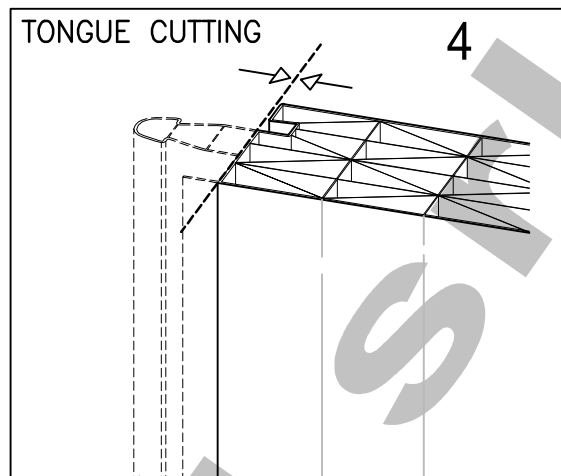
Phase 2/3

3

SILICONE THE HEADS OF SCREWS
AND THE JUNCTION BETWEEN THE
INNER SIDE AND THE SUPPORT

4

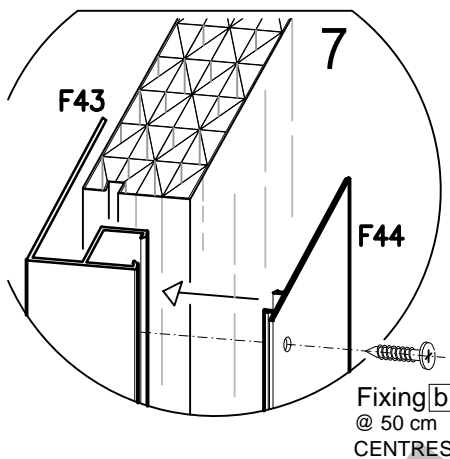
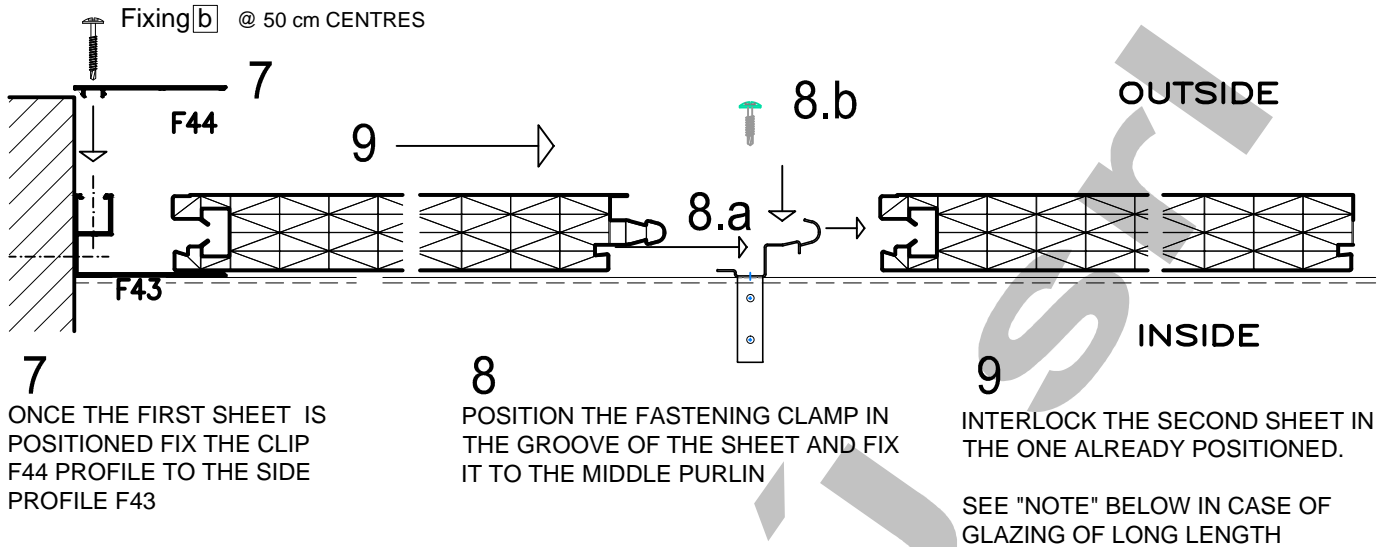
CUT OFF THE TONGUE OF
THE FIRST SHEET



5-6 POSITION THE FIRST SHEET BY SLIDING IT VERTICALLY INSIDE THE
UPPER PROFILE AND THEN DOWN INTO THE LOWER PROFILE

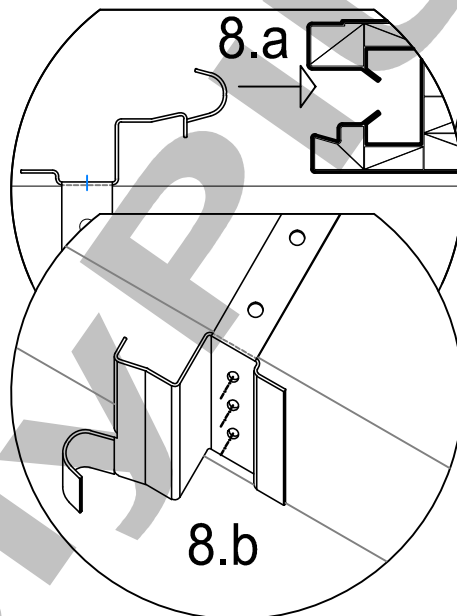
TYPICAL INSTALLATION GUIDE

Phase 3/3

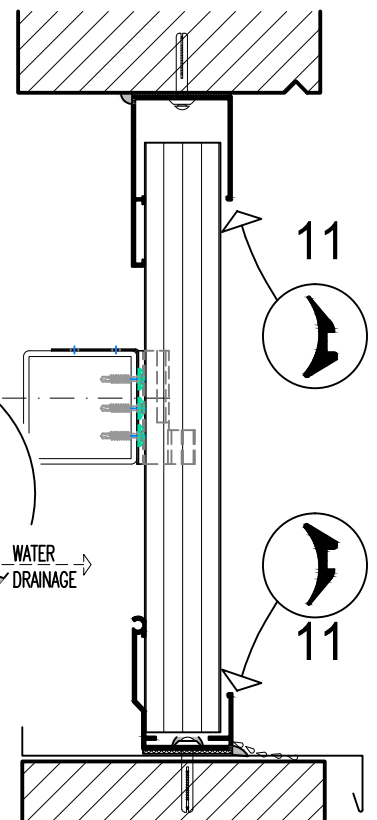
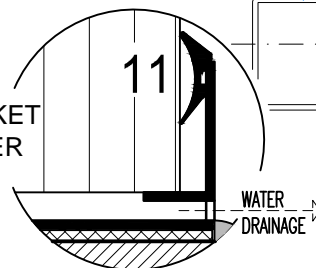


10
GO AHEAD THIS WAY BY POSITIONING ALL SHEETS AND FASTENING CLAMPS.
ATTENTION:
POSITION SHEETS AND CLAMPS AT THE SAME TIME

REPEAT THE FIXING OF THE CLIP F44 ON THE OTHER SIDE OF THE GLAZING AS INDICATED @ POINT 7



11
INSERT RUBBER GASKET DU153 INTO THE UPPER (F2P40) AND LOWER PROFILES (F1P40)

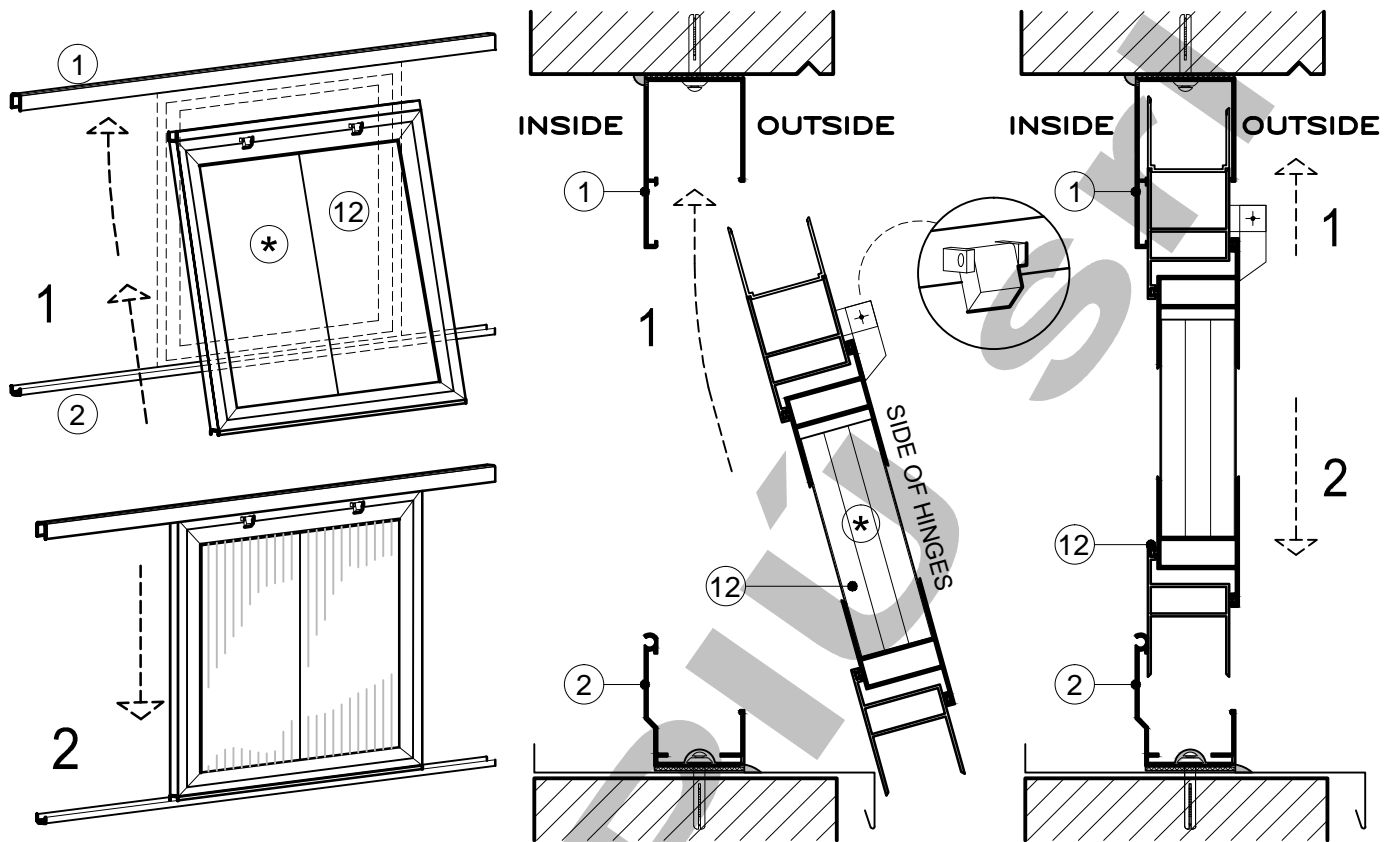


NOTE:

IT IS RECOMMENDED THAT LONG SHEET LENGTHS ARE CLIPPED TOGETHER FROM THE TOP DOWN.

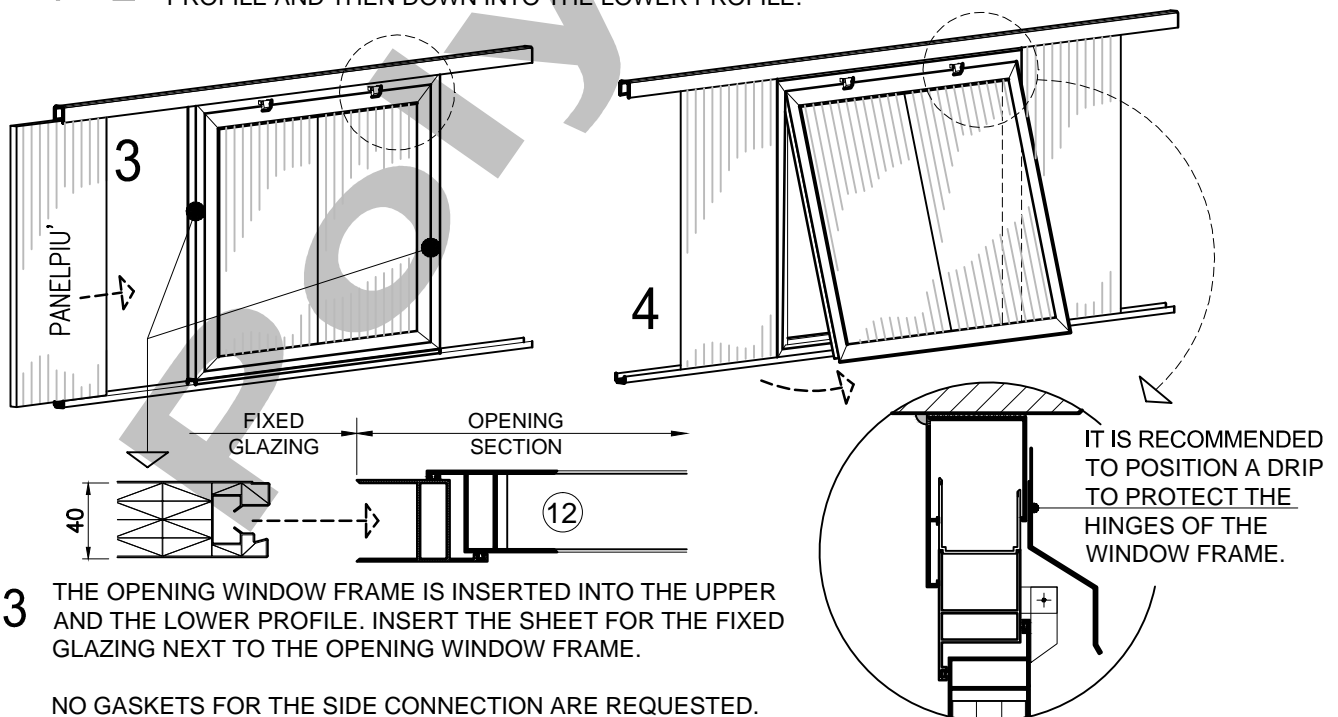
FITTING GUIDE FOR OPENING SECTION

* NOTE: THE WINDOW FRAME IS SUPPLIED PRE-ASSEMBLED AND COMPLETE WITH POLYCARBONATE SHEETS



POSITION, FIX AND SILICONE THE UPPER AND THE LOWER PROFILES AS SHOWN IN THE GUIDE SECTION FOR THE FIXED VERTICAL GLAZING (PAGES 14 & 15)

1 - 2 POSITION THE WINDOW FRAME (SHUT) AS SHOWN BELOW BY SLIDING IT UP INTO THE UPPER PROFILE AND THEN DOWN INTO THE LOWER PROFILE.



3 THE OPENING WINDOW FRAME IS INSERTED INTO THE UPPER AND THE LOWER PROFILE. INSERT THE SHEET FOR THE FIXED GLAZING NEXT TO THE OPENING WINDOW FRAME.

NO GASKETS FOR THE SIDE CONNECTION ARE REQUESTED.

[illegible]

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