INSTITUTE FOR TESTING AND CERTIFICATION
T. BATI 299, 764 21 ZLÍN, CZECH REPUBLIC

TEST REPORT

Reference No. 75 35 00413/ 2014

Applicant: **SUPERWOOD INDUSTRIES SDN BHD**
24 KM, JALAN TUARAN, TELIPOK, TUARAN,
SABAH, MALAYSIA

Product: **External wooden door,**
type (model): TACOMA

Manufacturer: **SUPERWOOD INDUSTRIES SDN BHD**
24 KM, JALAN TUARAN, TELIPOK, TUARAN,
SABAH, MALAYSIA

Elaborated by: Dipl. Ing. Milan Kovář

Issued on: 20th June 2014

Reference No. 75 35 00413/ 2014

INSTITUTE FOR TESTING AND CERTIFICATION 1023 NOTIFIED BODY

RNDr. Radomír Čevelík
Representative of Notified Body No. 1023

1. Assessment of conformity with essential requirements of the Government Order No. 190/2002, Collection of Laws as amended

External doors (pedestrian doorsets) as construction products are assessed on the basis of relevant clauses of the Construction Products Directive (CPD) - Council Directive 89/106/EEC from 21st December 1989 on the approximation of laws, regulations and administrative provisions of the Member States relating to construction products as amended by Council Directive 93/68/EC. The Directive has been implemented to the Czech legislative as the Government Order No. 190/2002 Collection of Laws.

European standards after their becoming available are subsequently adopted as national standards. All the EN standards cited in this report were issued with the same number as the Czech standards designated CSN EN 14351-1 etc. with equal requirements.

1.1 Conformity assessment procedure

The submitted product is assessed pursuant to Section 5, Subsection 1, letter b (system 3) of the Government Order No. 190/2002 (Collection of Laws) as amended.

The initial type testing was carried out according to the Annex ZA of the standard ČSN EN 14351-1.

1.2 Indicators specifying essential requirements

The initial type testing was carried out using the Intertek´s (Chinese accredited test laboratory) testing facilities (witness-testing) according to the applicant's requirements covered the following range of relevant properties (ČSN EN 14351-1, table ZA.3b):

- Resistance to wind load according to EN 12211, EN 12210
- Watertightness according to EN 1027 (method 1A), EN 12208
- Air permeability according to EN 1026, EN 12207
- Dangerous substances (manufacturer's REACH declaration)

The manufacturer declares that the assessed product meets all requirements of Title VIII and Annex XVII of the Regulation (EC) No. 1907/2006 of the European Parliament and of the Council as amended.

The acoustic performance and thermal transmittance evaluation was not required by the manufacturer.

2. Product specification

The manufacturer in co-operation with the Notified Body No. 1023, in accordance with the art. 7.2.5.1 of the technical standard ČSN EN 14351-1 has chosen following representative test specimen for initial type testing (ITT):

2.1 Representative Test Specimens Description

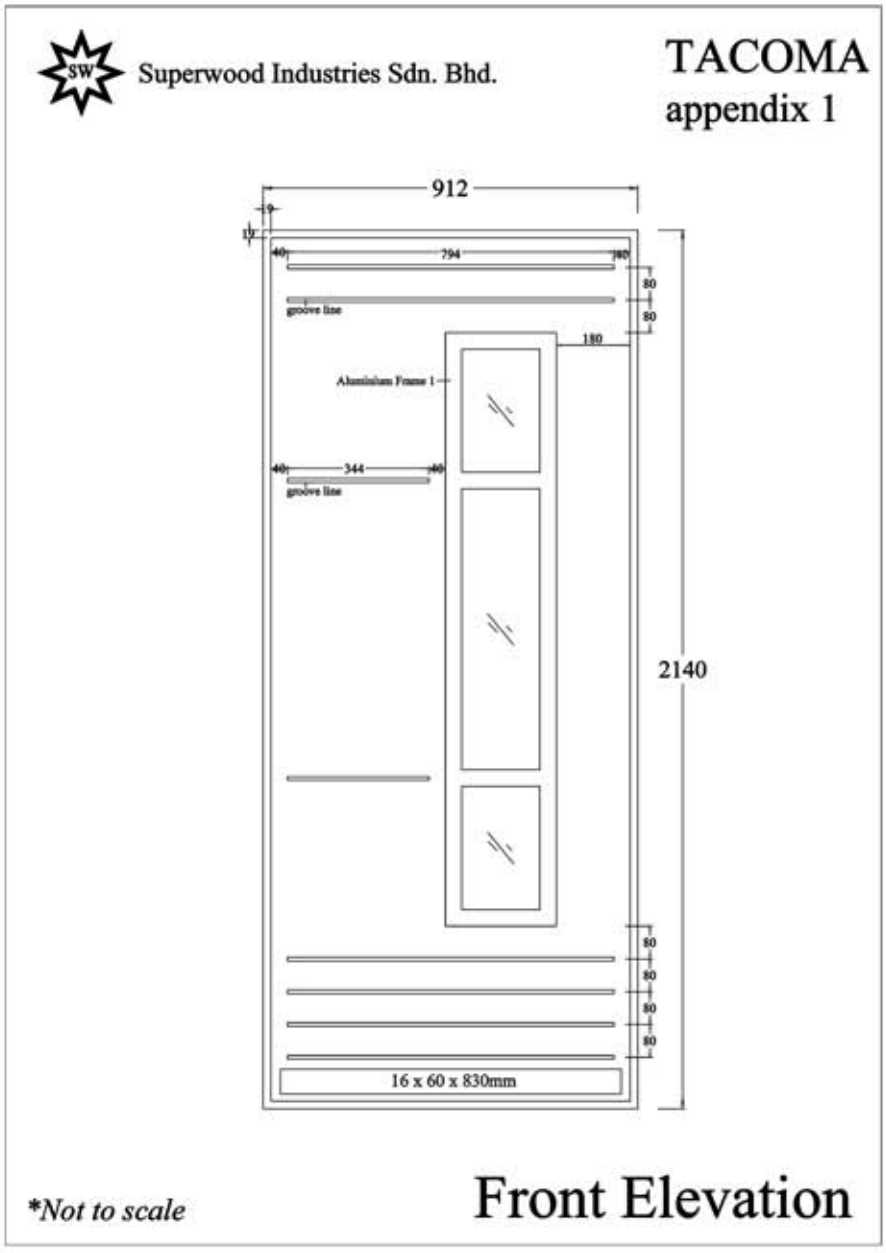
A.Single side-hung external wooden door with two glazed parts, opening inwards, right, Tacoma *type (model)*

Table 1 – Specification of the A representative test specimen (ID: S0910134•001)

1 Manufacturer: SUPERWOOD INDUSTRIES SDN BHD	
2 Window (door) system name / construction type (window, door, casement door): External wooden door with two glazed parts (Model of Tacoma), opening inwards / right	
3 Specification of components and their manufacturing plans; fill in material and the manufacturer´s marking	
- main profiles **manufacturer, supplier:** SUPPERWOOD SAWMILL (S) SDN BHD	Woody species, type and duality of glued joints, point design Frame dimensions **B x H**: 976 x 2185 mm Casement(s)dimensions **b x h**: 912 x 2140 mm
- other profiles **manufacturer, supplier:** LA GEEH HERR INDUSTRIAL COMPANY	Glazing beads, threshold profiles, rain cap (throating), marking Aluminium Threshold3
- opening joint sealing (preformed gaskets, weather stripping) **manufacturer, supplier:** LA GEEH HERR INDUSTRIAL COMPANY SHARWIN FOAM INDUSTRIES(M) SDN BHD.	Interior (internal), exterior (external), central, threshold sealing Door seal, E seal, Threshold seal, plastic Polystyrene Foam
-insulating glass (glazing), infill boards **manufacturer, supplier:** ORIENTAL INTERNATIONAL TRADING, HK PTE, LTD.	Marking and composition of glazing and infill Triple glazing laminated tempered glass
-sealing of glazing (glazing design) **manufacturer, supplier:** LA GEEH HERR INDUSTRIAL COMPANY SOON HING KITA SDN BHD.	Glazing design E seal Clear Silicon Gum- A3, Brand: "Super Seal"
4 Building hardware (fittings) (marking and manufacturer): LA GEEH HERR INDUSTRIAL COMPANY 4 points hinge.	
-exit devices (bolts) and their operating (right, left casement, others): multi/one-point, push bolt, espagnolette bolt, tilt flap Not applicable	
-hinges (auxiliary): (right, left casement, other),sort - turn, tilt and turn LA GEEH HERR INDUSTRIAL COMPANY 4 × Hidden, Turn, Right Hinges:	
- locks: Panic building hardware (fittings), security building hardware (fittings) Plastic guard, lock latch catch, latch catch, 6 points lock and cyclinder lock LA GEEH HERR INDUSTRIAL COMPANY	
5 Finish (surface treatment): Type, manufacturer, supplier NC clear sealer (Brown Color), Inchem Brand, New Paris (Paint): Byti Cellulose (BC-01), Manufactures: ALKANA MALAYSIA SDN BHD.	
6 Frame point design and additional notes: Point type, used glue, sealant and silicone usage (whether joints on strips (beads) and sealing are bottom-sealed) (1) White silicon gum – RS 300, Brand: "Hardex", Manufacture: PAUMIN HARDWARE SDN BHD (2) M4 Screw, Manufacturer: LEE TAT LEE ENTERPRISE SDN BHD (3) JCBC Screw, Manufacturer: LEE TAT LEE ENTERPRISE SDN BHD (4) Clear Silicon Gum–A3, Brand: " Super Seal", Manufacturer: SOON HING KITA HARDWARE SDN BHD (5) E seal, Manufacturer: LA GEEH HERR INDUSTRIAL COMPANY	

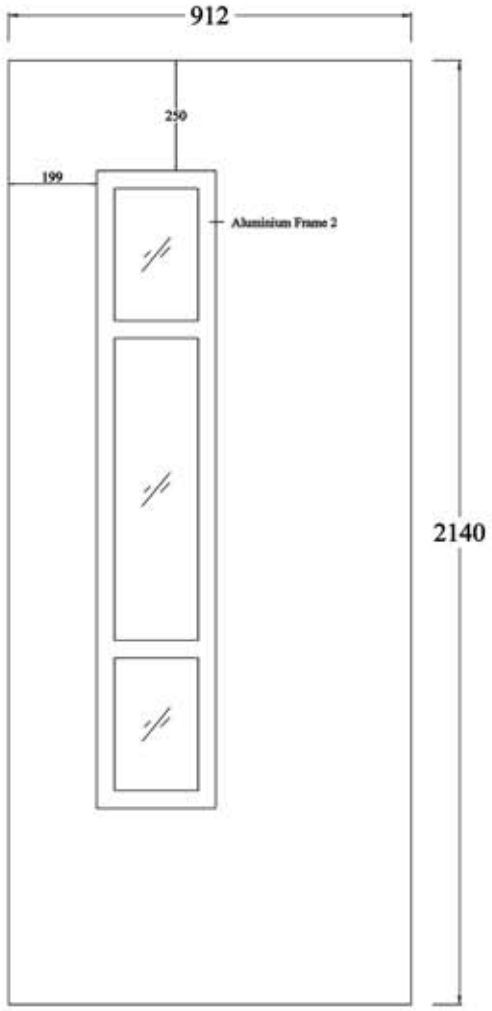
2.2 Representative test specimen (A) structure sections and drawings

2.2.1 Representative test specimen A



Superwood Industries Sdn. Bhd.

TACOMA
appendix 2

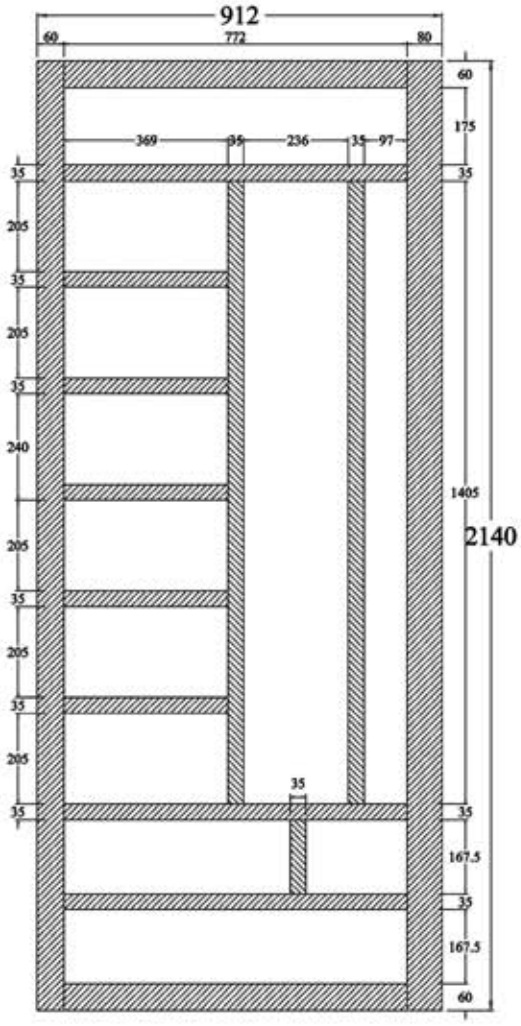


*Not to scale

Rear Elevation

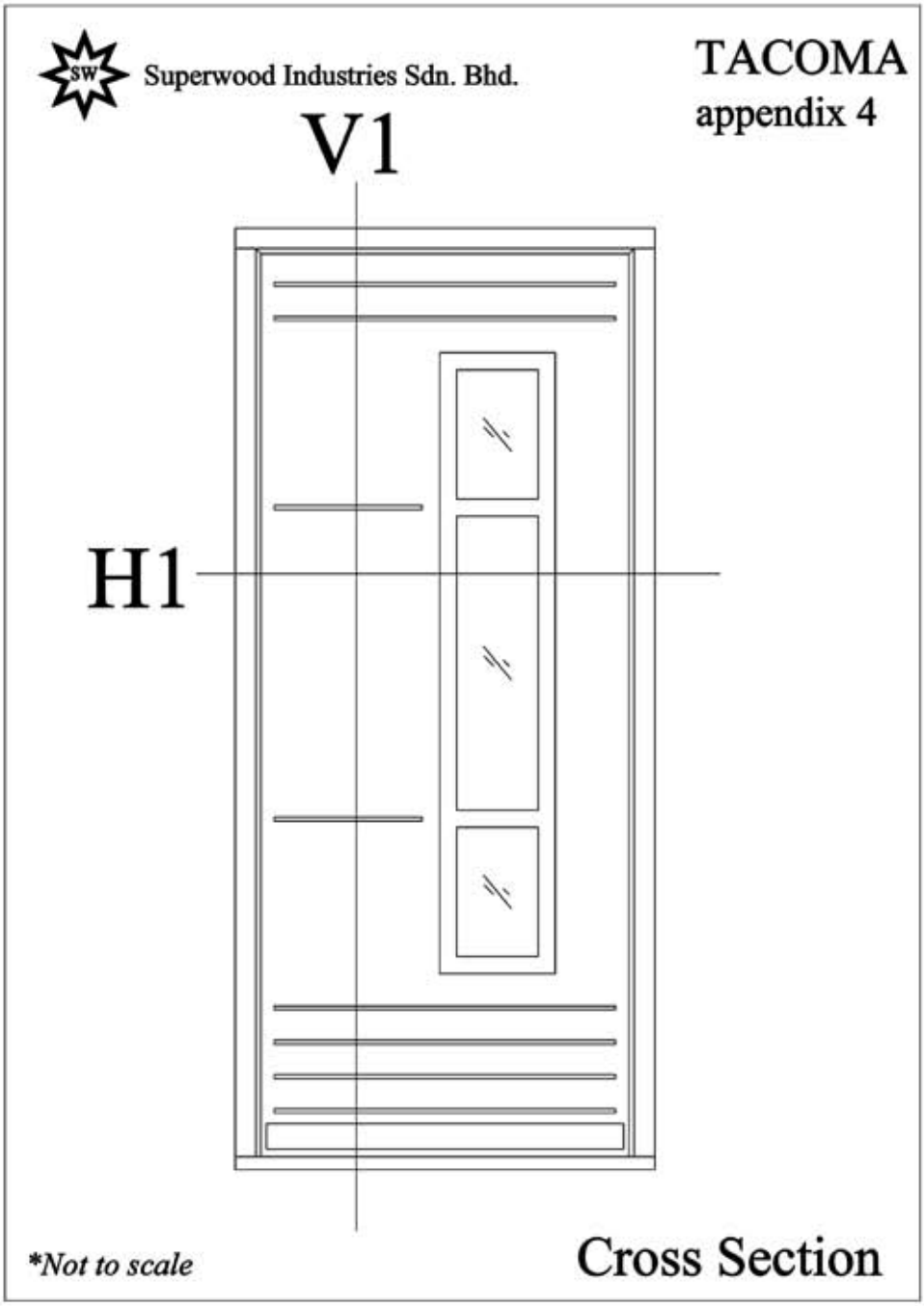
Superwood Industries Sdn. Bhd.

TACOMA
appendix 3



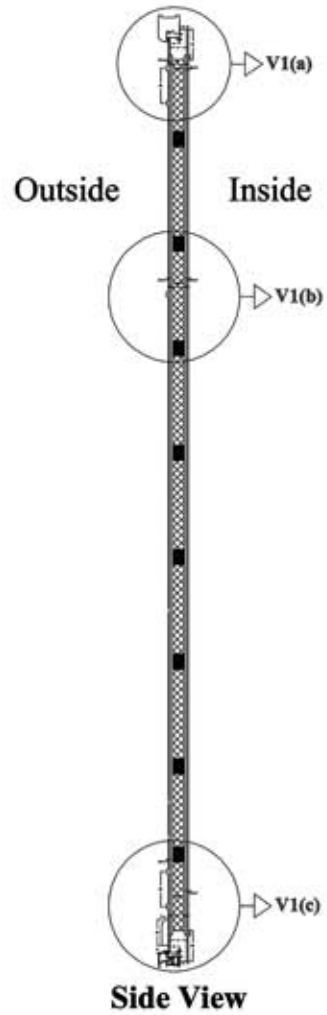
**Not to scale*

Internal Section


Superwood Industries Sdn. Bhd.
TACOMA
appendix 4
V1
H1
*Not to scale
Cross Section

Superwood Industries Sdn. Bhd.

TACOMA
appendix 5



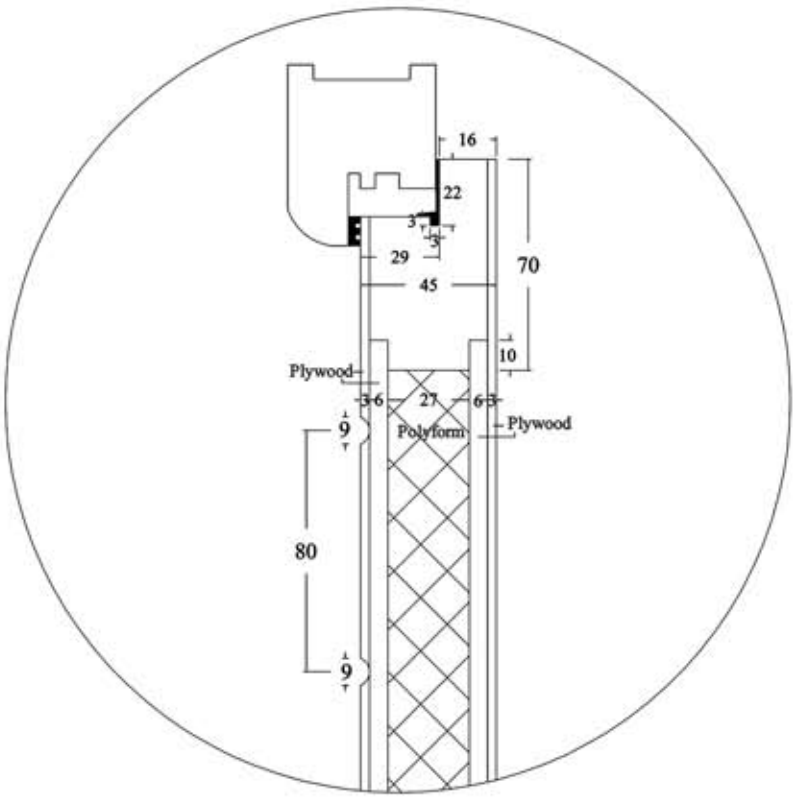
Side View

*Not to scale

Cross Section (Vertical 1)

Superwood Industries Sdn. Bhd.

TACOMA
appendix 6

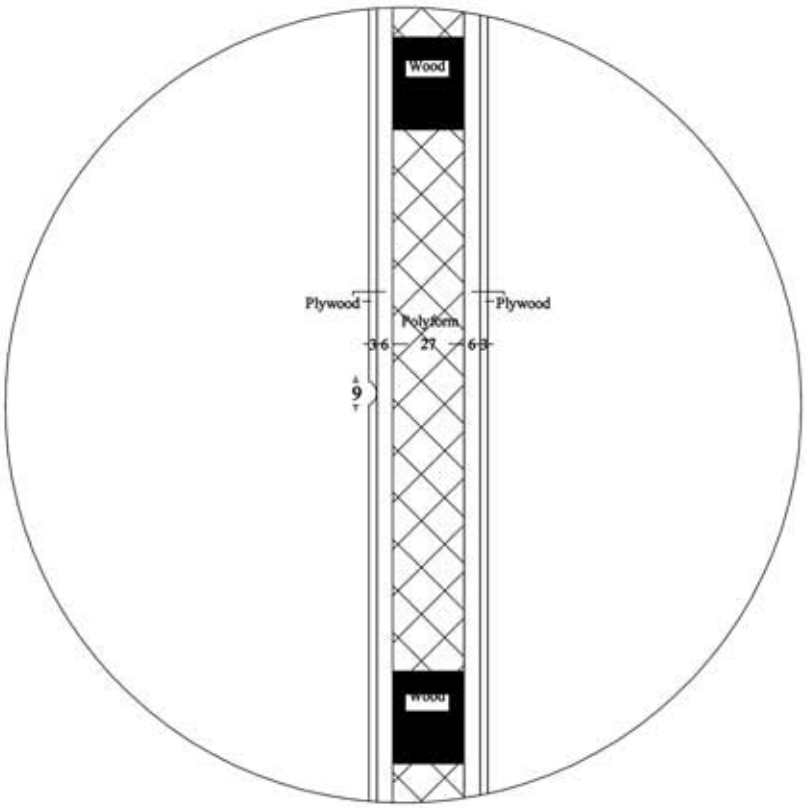


*Not to scale

Cross Section - V1(a)

Superwood Industries Sdn. Bhd.

TACOMA
appendix 7

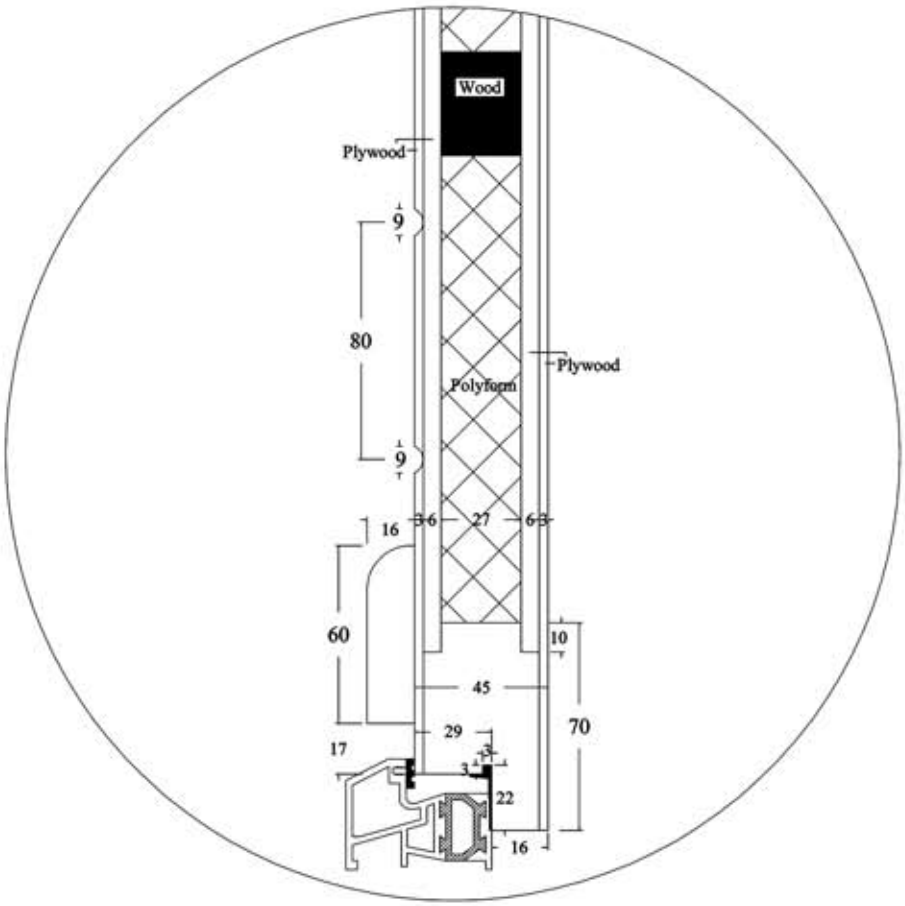


*Not to scale

Cross Section - V1(b)

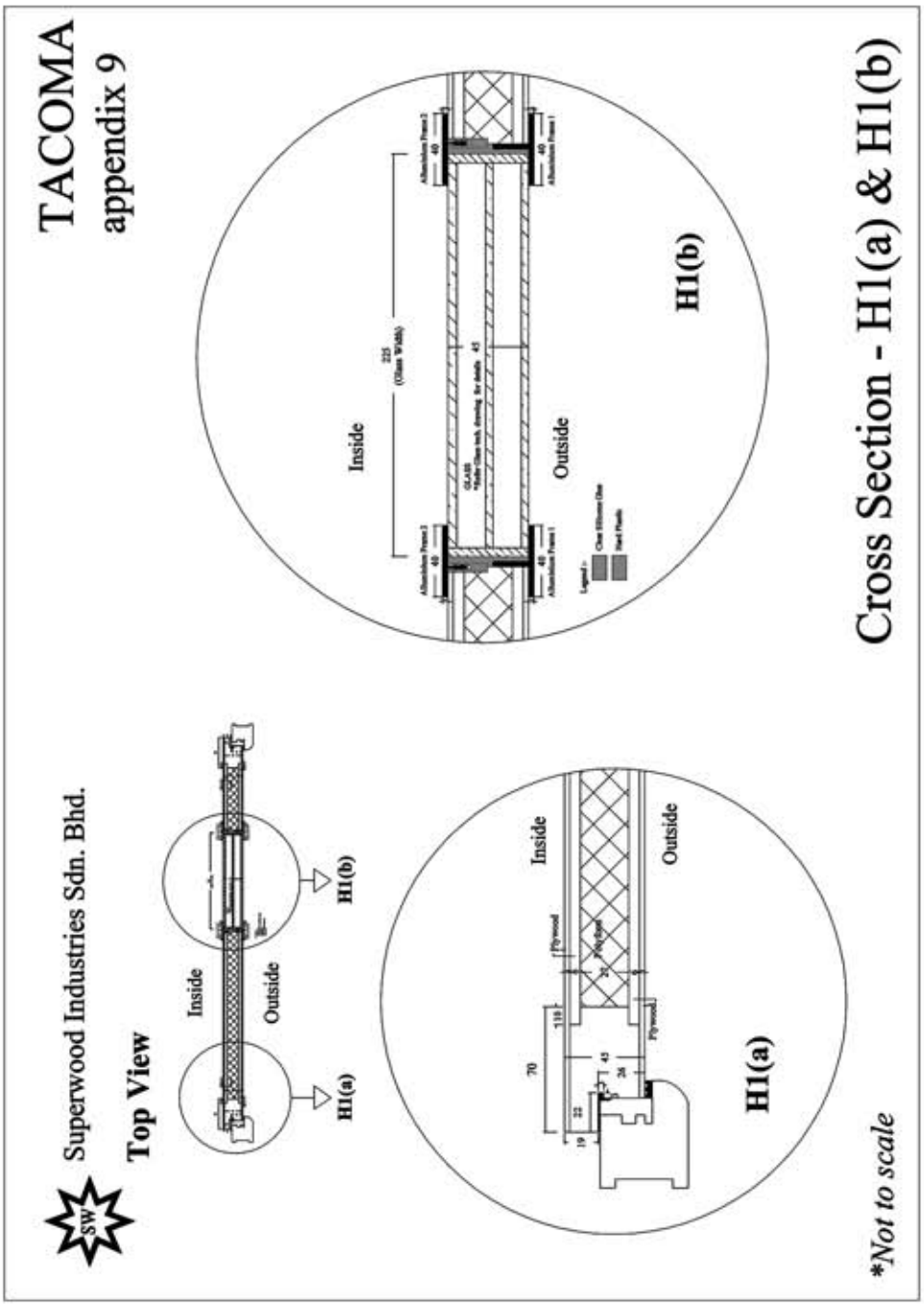
Superwood Industries Sdn. Bhd.

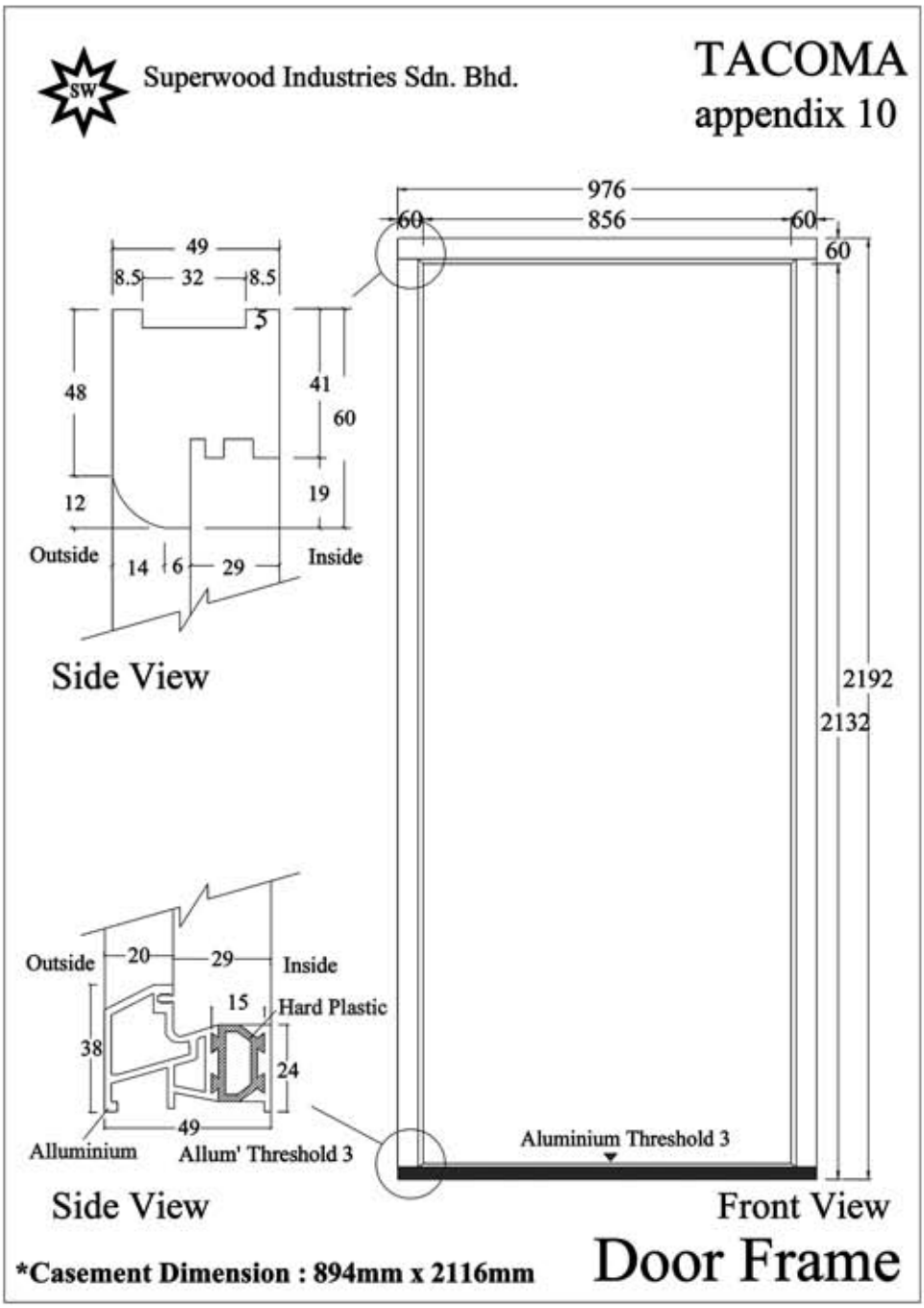
TACOMA
appendix 8

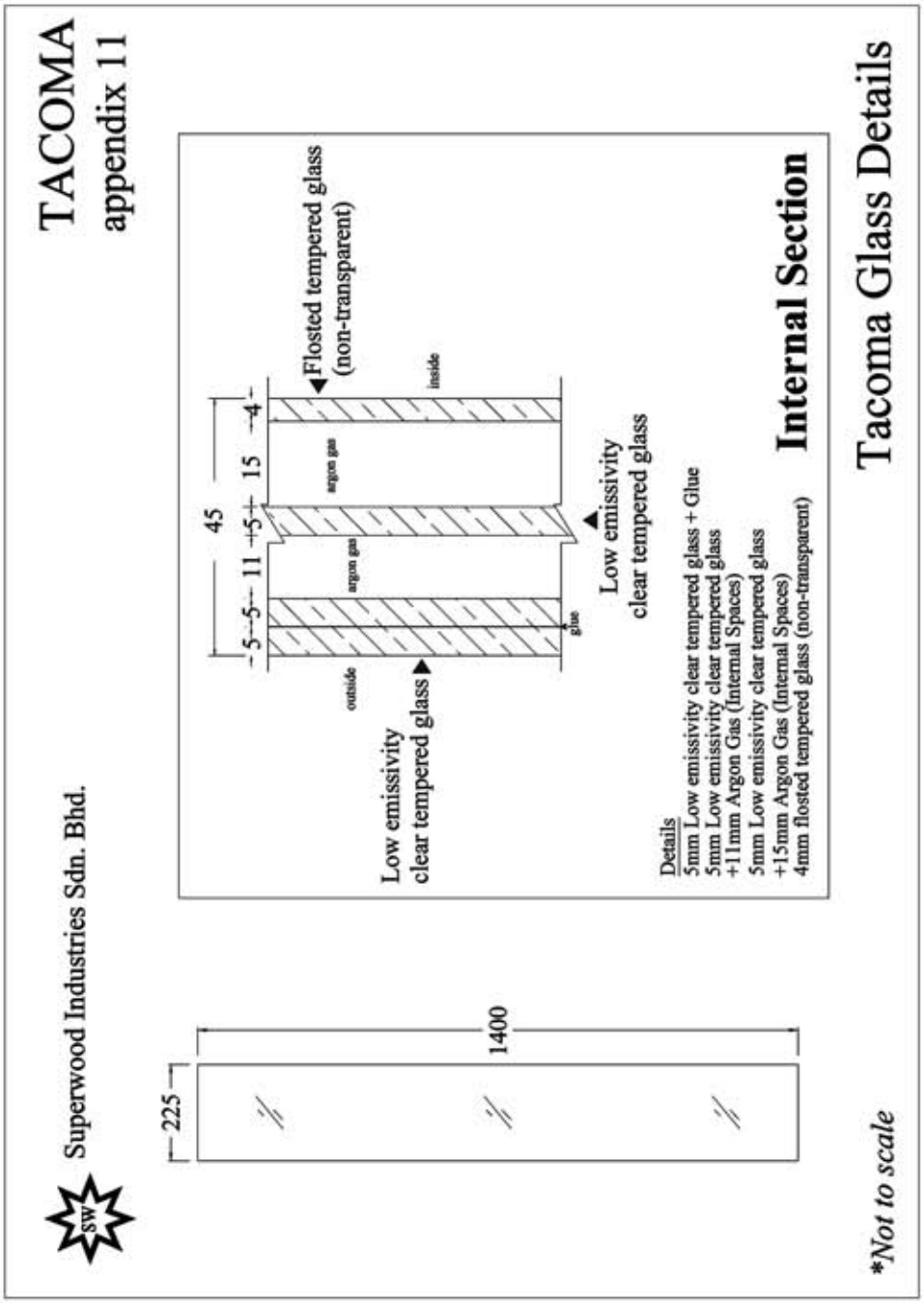


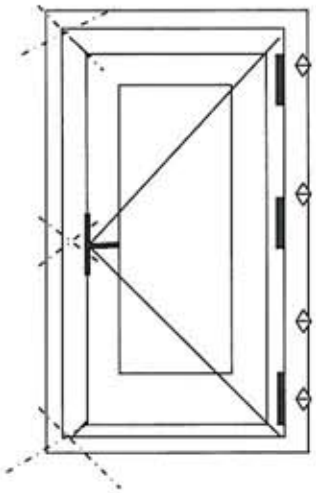
*Not to scale

Cross Section - V1(c)


TACOMA
appendix 9
Superwood Industries Sdn. Bhd.
Top View
Inside
Outside
H1(b)
H1(a)
Cross Section - H1(a) & H1(b)
H1(b)
Inside
Outside
H1(a)
Inside
Outside
Plywood
Plywood
*Not to scale


Superwood Industries Sdn. Bhd.
TACOMA
appendix 10
976
60
856
60
60
49
8.5
32
8.5
5
48
41
60
19
12
Outside
14
6
29
Inside
Side View
2192
2132
Outside
20
29
Inside
15
Hard Plastic
38
24
49
Alluminium
Allum' Threshold 3
Aluminium Threshold 3
Side View
Front View
*Casement Dimension : 894mm x 2116mm
Door Frame


TACOMA
appendix 11
Superwood Industries Sdn. Bhd.
Tacoma Glass Details
*Not to scale
225
1400
Internal Section
Flosted tempered glass
(non-transparent)
inside
argon gas
argon gas
outside
glue
Low emissivity
clear tempered glass
Low emissivity
clear tempered glass
45
5
5
11
5
5
15
4
Details
5mm Low emissivity clear tempered glass + Glue
5mm Low emissivity clear tempered glass
+11mm Argon Gas (Internal Spaces)
5mm Low emissivity clear tempered glass
+15mm Argon Gas (Internal Spaces)
4mm flosted tempered glass (non-transparent)



◈ Turn hinge

Deflection measurement place

2.3. Sampling place and number of samples taken

The samples have been delivered by the applicant in the following scope:

- Single side-hung external wooden door, opening inwards, right, Tacoma type (model) (1 pc)

The sample (test specimen) was registered under the registration (ID) number: S0910134•001 (on 29th May 2014) in the Intertek´s test laboratory.

3. Place and date of testing

- Intertek Testing Services Ltd., Shanghai JinQiao Branch, accredited test laboratory No. TL-394, Shanghai, China (5th June 2014)

The testing was witnessed by the representative of the NB 1023, Milan Kovář

4. Test results

The results of determination of the properties are shown in Tables 2, 3 and Annexes 1, 2.

Table 4 – Results of determination of air permeability and resistance to wind load

Test specimen	Reference air permeability at 100 Pa (before wind load) related to		Classification of air permeability related to the overall area/to the length of joints	Reference air permeability at 100 Pa (after wind load P1,P2) related to		Requirement for maximum air permeability (120% of upper limit value) at 100 Pa for the **given class** (after wind load) related to		Repeated pressure test (P2) Safety test (P3)	Relative frontal deflection at P1 (mm) **(Final classification of resistance to wind load)**
	the overall area $m^3/(h.m^2)$	the length of joint $m^3/(h.m)$	**Final classificati-on of air permeability** (also with regard to pressure dependence of air permeability – see Annex 1)	the overall area $m^3/(h.m^2)$	the length of joint $m^3/(h.m)$	the overall area $m^3/(h.m^2)$	the length of joint $m^3/(h.m)$		
A	0.71	0.25	4/4 4 **It is necessary to declare class 3**	5.13	1.79	3.6 (class 4) 10.8 **(class 3**	0.90 (class 4) 2.7 **(class 3)**	No damage	1/4580 1/2060 **(C2)**

The air permeability after tests P1 and P2 exceeded the upper limits of the claimed air permeability class (**Class 4**) as specified in EN 12207 by more than 20%.
The air permeability after tests P1 and P2 did not exceed the upper limits of the claimed air permeability class (**Class 3**) as specified in EN 12207 by more than 20%.

So final classification of air permeability according to EN 12207 is class 4, but the manufacturer has to declare **class 3** with regard to results of air permeability after wind load.

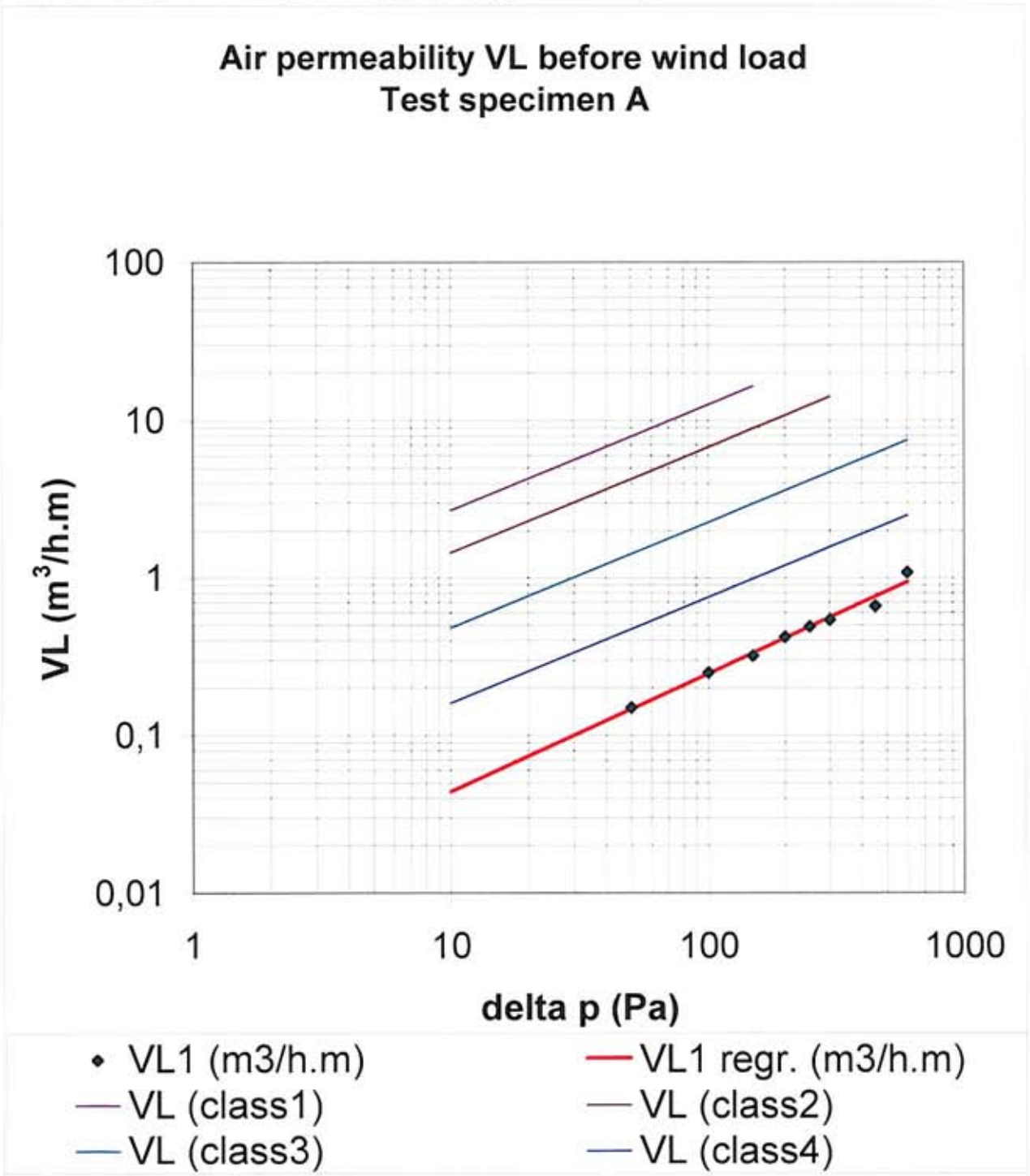
Table 5 – Results of determination of watertightness

Test specimen	Watertightness (method 1A)	
	Limit of watertightness P_{max} (Pa) **(classification)**	Water penetration time
A	450 **(8A)**	Water spraying was finished after 50 min, without water penetration

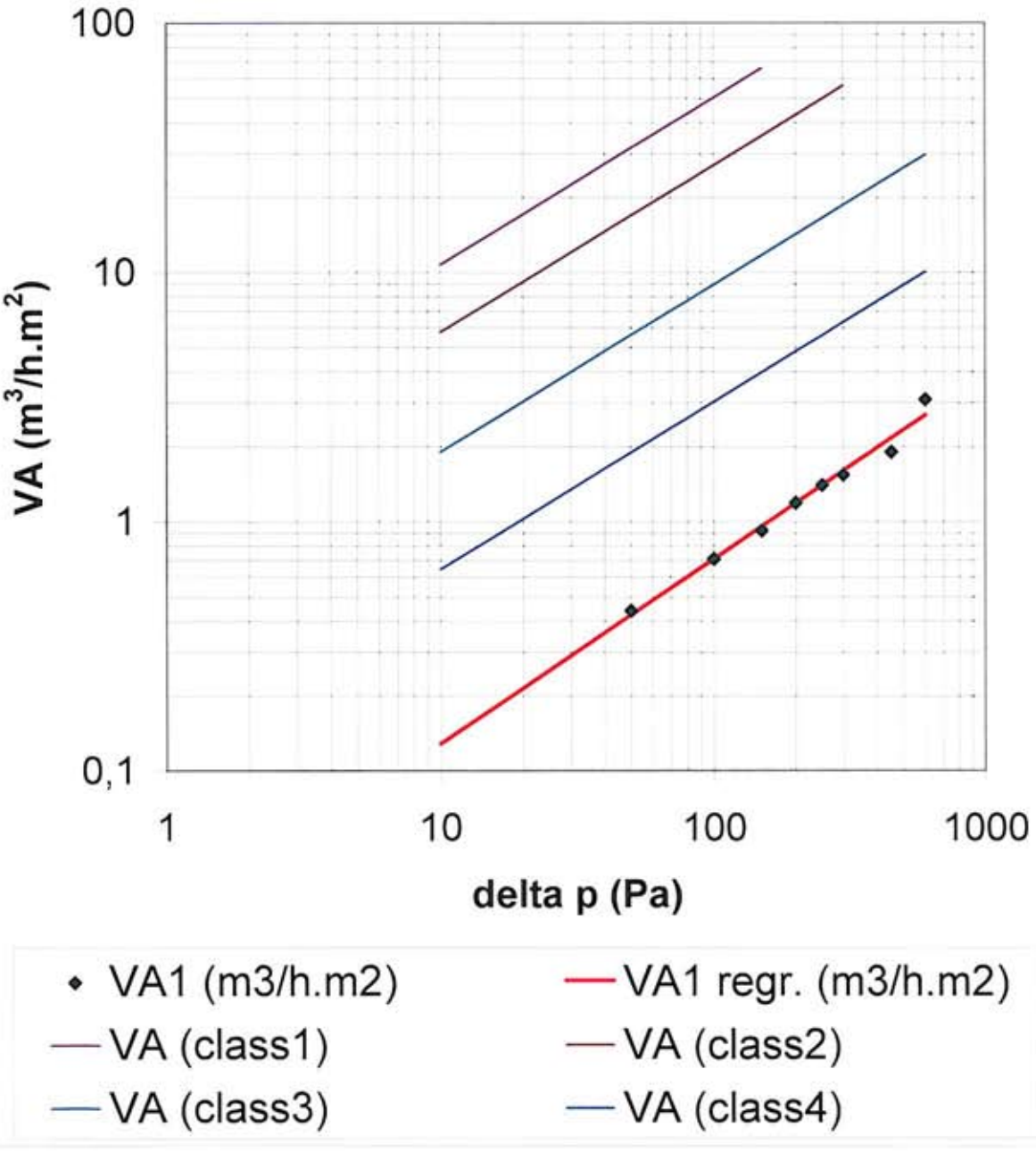
5. A list of documents used to elaborate the Test Report

- Application No. 753500413 for conformity assessment of CE-marked construction products
- Government Order No. 190/2002, Collection of Laws, as amended
- ČSN EN 14351-1 (74 6075): Okna a dveře – Norma výrobku, funkční vlastnosti – Část 1: Okna a vnější dveře bez vlastností požární odolnosti a/nebo kouřotěsnosti (Windows and doors – Product standard, performance characteristics – Part 1: Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics)
- Test Report, reference No. AU09114003-1, elaborated by Intertek Testing Services Ltd., Shanghai JinQiao Branch, accredited test laboratory No. TL-394, Shanghai, China on 5th June 2014
- Manufacturer´s REACH declaration from 29/5/2014
- Checklist for assessment of selected elements of maintained quality system and laboratory technical capacity according to requirements of the Standard EN ISO/IEC 17025 – General requirements for the competence of testing and calibration laboratories, worked out for Intertek Testing Services Ltd., Shanghai JinQiao Branch on 8. 6. 2014
- Specification of the test specimen representative

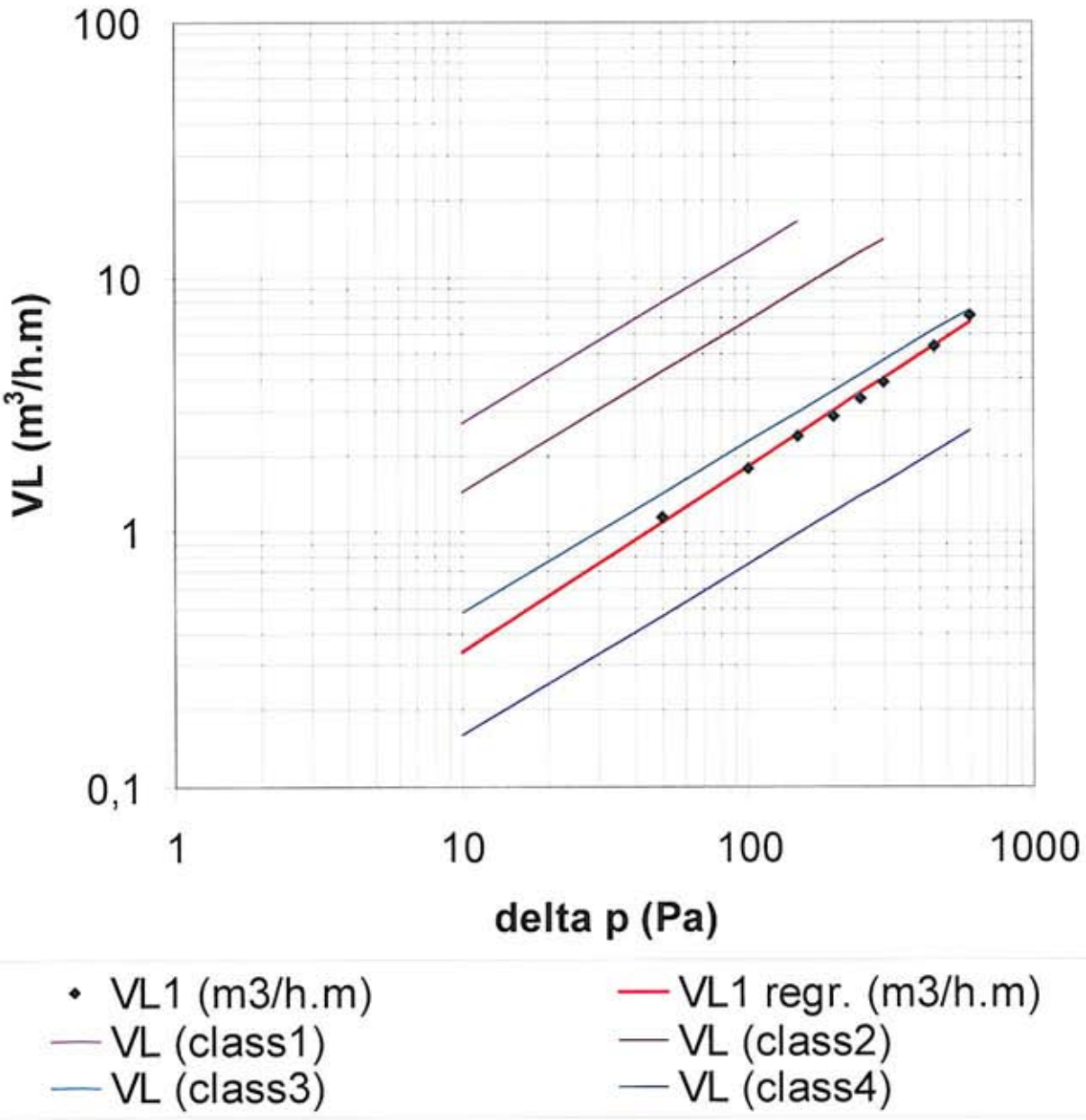
Annex 1 Results and classification of air permeability



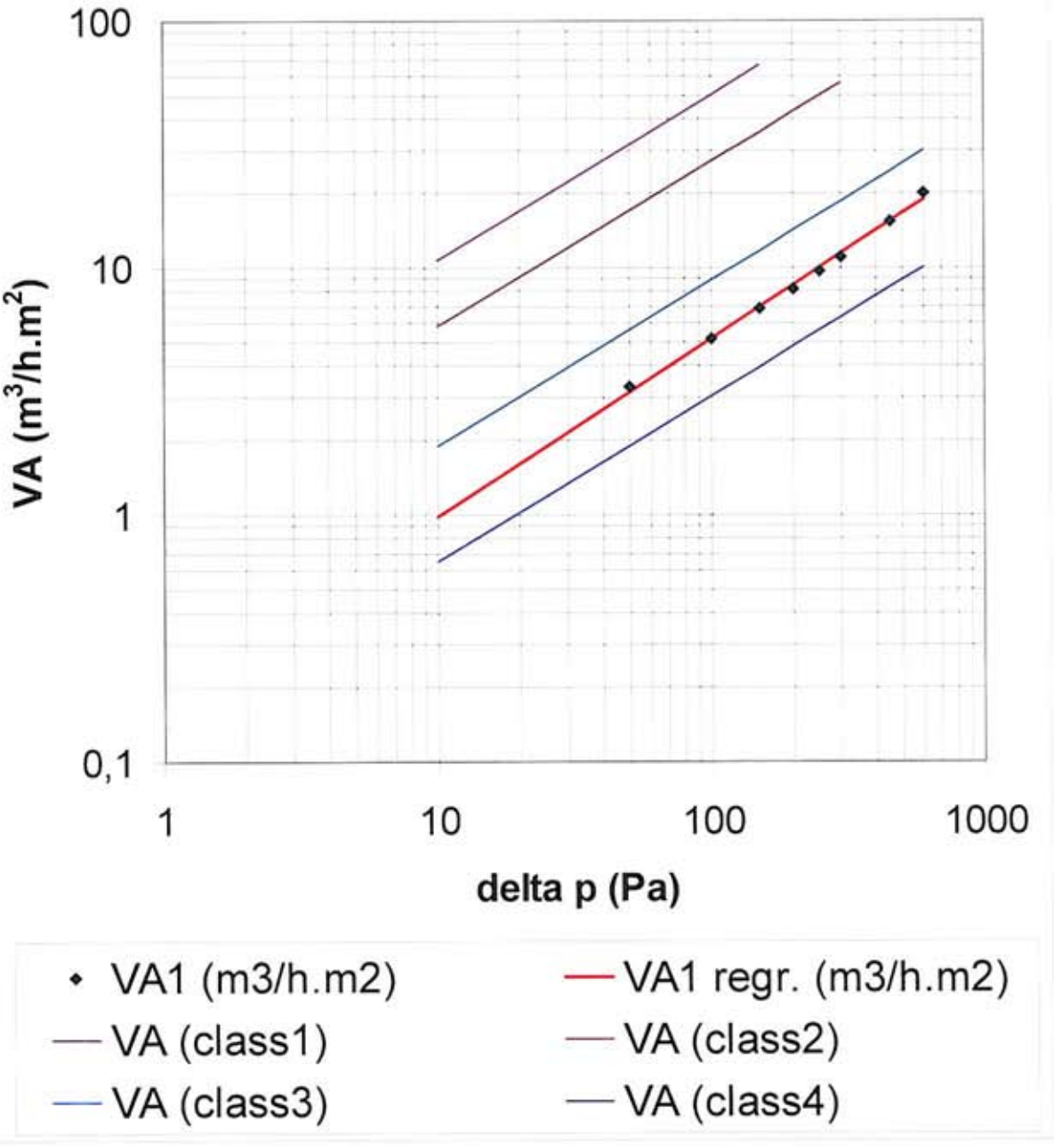
Air permeability VA before wind load
Test specimen A



Air permeability VL after wind load
Test specimen A



Air permeability VA after wind load
Test specimen A



Annex 2: Deflection measurement results

Table 4 – Test specimen A

Deflecti-on meter (gauge) No.	Frontal displacement (deflection) values (mm)							
	Positi-ve pressu-re +P1	Zero pressure P_0	Frontal deflection F_p	Relative frontal deflecti-on $F_{rp} = F_p/L$	Negative pressure -P1	Zero pressure P_0	Frontal deflecti-on F_p	Relative frontal deflecti-on $F_{rp} = F_p/L$
2 - top	1.2	0.0	0.45	**1/4580**	1.5	0.0	1.00	**1/2060**
6 - middle	1.2	0.0			1.9	0.0		
3 - bottom	0.3	0.0			0.3	0.0		

L = 2060 mm