



Initial Type Testing Report

according to the provisions of § 5 paragraph 1 letter b) of the Order of the Government No. 190/2002 of Coll. of Laws in valid wording (Systems attestation of conformity No. 3) and in accordance with directive 89/106/EHS of Council European Community of December 21, 1988 about convergence of law and administrative regulations of member states concerning building products (Construction Products Directive – CPD), in wording of directive 93/68/EHS of Council European Community of July 22, 1993.

No. 1390 – CPD – 0531 – 09/Z(e)*

Translation of Initial Type Testing Report No. 1390 – CPD – 0531 – 09/Z dated 15 September 2009

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Product title:

Starlite™ / Keylite Wooden Roof Windows CP01 – CP09

Centre of Building Construction Engineering, Inc. Prague (Centrum stavebního inženýrství a.s. Praha), workplace in Zlín, has as Notified Body (NB) No. 1390, performed Initial type testing of the product mentioned below. This report may be used as a basis for issue an EC Declaration of Conformity according to the requirements in the harmonized standard EN 14351-1:2006 for

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Zlín: 15 September 2009

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1 SPECIFICATIONS OF TEST SUBJECT

1.1 Specification of specimens: Single-light wooden roof window – 1340 mm wide by 980 mm high (characteristics No. 1, 2, 4, 5, 6, 7), 550 mm wide by 800 mm high (characteristic No. 3)

1.2 Product description:

Starlite™ / Keylite wooden roof window CP

Starlite Centre Pivot Roof Windows are fabricated from preserved softwood frames featuring coil-coated aluminium on the external faces and clear satin water-based acrylic lacquer on the internal faces of the frames and sashes.

The cores of the window framing members are profiled from multi-laminated softwood and treated with preservative. Members of the outer frames and sashes are glued and nailed at the corners.

The roof windows are factory-glazed using sealed double-glazed units (4/20/4). The units comprise a 4 mm thick outer pane made of toughened glass featuring a low emissivity coating, a 20 mm argon-filled cavity and a 4 mm thick single or 6mm thick laminated glass (4/18/6) inner pane made of float glass.

The aluminium profiles covering the outer and the sash frames and the flashings sealing the joint between the frame and the roof slope are fabricated from aluminium sheet alloys EN AW-1050A, EN AW-3003, EN AW-3105 to BS EN 573-3: 2007. The aluminium sheet is 1.0 mm or 0.7 mm thick depending on component and is secured to the wood core with polyester powder coated, zinc plated mild steel screws.

The coil-coating on the aluminium components is available in grey finish as standard (other colour finishes are an option) and has a minimum thickness of 25 µm.

Glazing units are sealed into the wooden sash using EPDM gaskets on the inside and butyl mastic tape on the outside. The glazing unit is held with aluminium glazing beads.

The lights are operated by a handle integrated in the control bar, both constructed from anodized aluminium alloy. The centre pivot hinges are constructed from a combination of zinc plated mild steel and acetal homopolymer (POM) resin. They allow the sash to be turned through 180° and secured in position by engaging one or two bolts (depending on window size) for cleaning and maintenance. A key operated lock (or two depending on window size) is available and can be fitted at the bottom of the sash pivot.

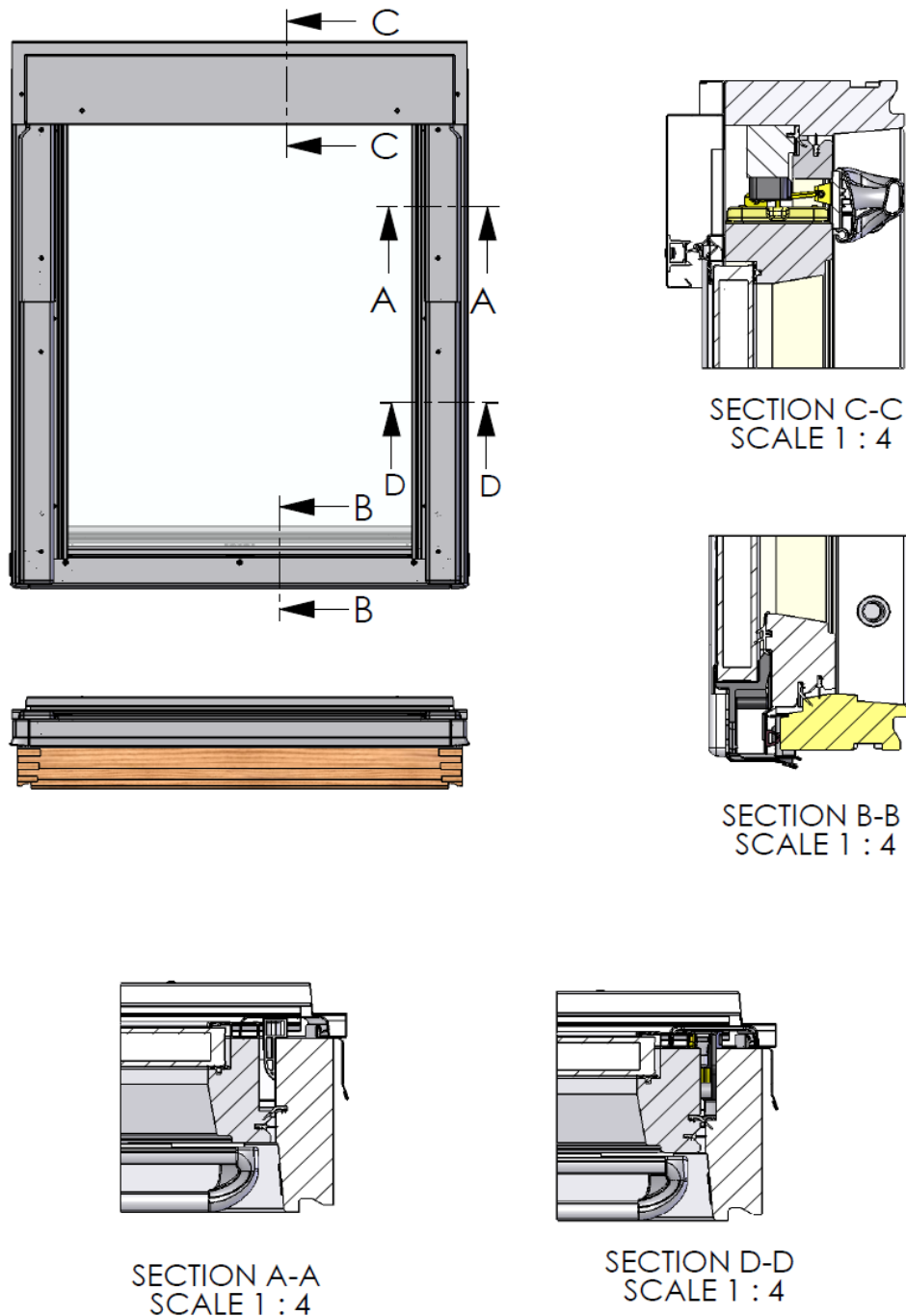
EPDM weather-stripping is located in the grooves around the periphery of the opening light frame below the hinge axis and around the outer frame above the hinge axis. A base seal is fitted to the bottom member of the opening light. Gap between opening light frame and fixed frame is complete covered by TPE corner welded seal which is located in the groove around opening light. The frame aluminium cover profiles are sealed on both sides light members. All these create triple rubber seal system.

The windows are equipped with a built-in air inlet equipped with an open mesh dust and insect filter fitted in the top member on the external face of the sash.

1.3 The intended use:

The roof window – a construction with a clear or transparent infill determined for installation to an inclined roof structures. It is determined for daily lighting, eventually for natural (direct) ventilation (infiltration) of building inner spaces. It fulfils the function of thermal insulation, acoustic insulation and protection against unfavourable climatic influences. The roof window is intended to be used in domestic and commercial locations at where there aren't any reactions to fire and fire resisting requirements. The roof window can be installed in any sloping roof with a pitch between 15° & 90° on battens or rafters. It is integrated with roofing by means of flashings.

Figure 1 – Drawing of Starlite™ / Keylite wooden roof windows CP



2 SAMPLING

Sampling: Janusz Stolarczuk from KEYLITE RW POLSKA sp. z o.o.

Specimens supplied by: Janusz Stolarczuk from KEYLITE RW POLSKA sp. z o.o.

Specimen supplying date to testing laboratory: 15 June 2009

Specimen No.: 366/09, 367/09

3 TEST RESULTS

Initial type testing has been carried out by Notified Body No. 1390 and Accredited Testing Laboratory No. 1007.1 – CSI a.s. Praha, workplace Zlín. The test results are given in the Test report No. 304/09 issued by ATL No. 1007.1 on 12 August 2009 (characteristics No. 1, 2, 3, 4, 7), in the Test report No. 281/08

issued by ATL No. 1007.1 on 14 August 2008 (characteristic No. 5) and in the Test report No. 286/08 issued by ATL No. 1007.1 on 15 August 2008 (characteristic No. 6).

The summary of results is given in the following table.

Table 1 – The summary of results of the initial type tests

Characteristic		Testing or calculation standard	Classification standard	Measurement results
1	Resistance to wind load	ČSN EN 12211	ČSN EN 12210	Class C4
2	Watertightness	ČSN EN 1027	ČSN EN 12208	Class 9A
3	Impact resistance (external impact)	ČSN EN 13049	ČSN EN 13049	Class 1 – 200 mm
4	Load-bearing capacity of safety devices	ČSN EN 14609	ČSN EN 14351-1	Pass
5	Acoustic performance	ČSN EN ISO 140-3 and ČSN EN ISO 717-1	Declared value	28 (-1;-2) dB
6	Thermal transmittance	ČSN EN ISO 12567-2	Declared value	1,4 W/(m ² .K)
7	Air permeability	ČSN EN 1026	ČSN EN 12207	Class 2

4 CONCLUSION

NB 1390 verifies conformity of the declared characteristics of the evaluated product with the results of the initial type tests according to the used articles and Annex ZA EN 14351-1.

5 VALIDITY OF INITIAL TYPE TESTING REPORT

The initial type testing report is issued for definite specific constructional alternatives of the product arising during the production and assembly, provided the production processes and other productive technical documentations were complied with and under assumption that the quality of the production will be constant. This report is valid for the product made according to the given documentation. The report has unlimited time validity, more precisely, the report applies only to the time when a change occurs in some of the evaluated characteristics given by a change in documentation drawing for product construction, if there is a change of some of the used components in accordance with catalogues of suppliers, if the existing technical documentation validity is terminated, if there is a change of technologic process or material structure and up to the moment of the change of lawful requirements for product evaluation, or up to the moment when a further report updating the survey of the produced alternatives in accordance with newly expressed numerical values of relevant technical parameters and physical quantities is issued.

6 BASES UTILIZED FOR REPORT PREPARATION

1. Application for the execution of the Notified Body activity No. 0531/09/Z;
2. Technical description of specimens;
3. Drawing documentation;
4. Fitting instructions;
5. Test report No. 281/08 issued by ATL No. 1007 on 14 August 2008;
6. Test report No. 284/08 issued by ATL No. 1007 on 15 August 2008;
7. Test report No. 443/09 issued by ATL No. 1007.1 on 15 September 2009.