

# **CERTIFICATE**

144502

# Sapa Building Systems

Holder/Issued to

### Hydro Building Systems Sweden AB

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#### **Product description**

Windows, doors, walls, facades and roofs. The system consists of a framework made from aluminium profiles with various types of infills, such as glass panes in accordance with the description of products approved for P-marking.

Product	Designation	Description
		latest date
Doors, fire doors and fire partitions	Sapa 2050/3050 and 2060/3060	2013-12-18
Doors, fire doors and fire partitions	Sapa 2074	2013-12-18
Doors, fire doors and fire partitions	Sapa 2086	2017-11-10
Windows and glass partitions	Sapa 1050 and 3050	2013-12-18
Windows and glass partitions	Sapa 1074 and 3074	2013-12-18
Windows and glass partitions	Sapa 1086 and 3086 2016-06-	
Facades and structural windows	Sapa 4150, 5050SG and 4074	2020-06-17
Glass roofs and roof windows	Sapa 5050	2018-10-17
Lift-slide door	Sapa 2160	2013-12-18
Sliding doors	Sapa 2115	2013-12-18
Sliding doors	Sapa 2125	2013-12-18
Folding door	Sapa 1086 Folding door	2018-10-09

#### Intended use

Windows, doors, walls, facades and roofs for use in buildings.

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**RISE Research Institutes of Sweden AB** | Certification Box 857, SE-501 15 Borås, Sverige Tel: +46 10-516 50 00 certifiering@ri.se| www.ri.se







#### **Approval**

The products have been found to meet the requirements in the following sections of Boverket Building Regulations (BBR) and Boverket mandatory provisions on application of the European construction standards (Eurocodes), (EKS): both issued by the National Board of Housing, Building and Planning.

#### BBR

Fire resistance class EI 15, E 30, EI 30 and EI 60 as in appendix	
Smoke leakage class Sa, S200 as in appendix	
External walls in a building of class Br1	5:551
Harmful moisture, Walls, windows, doors etc. water tightness classification as in appendix	
Harmful moisture, Roofs and attic spaces, water tightness classification as in appendix	
Airborne sound insulation, as in appendix	7
Safety in use, Glass in buildings	8:35
Energy economy, Thermal transmittance, U-values as in the Product manual	9
Energy economy, Air permeability, classification as in appendix	

#### **EKS**

Application of EN 1990 - Basis of structural design	Section B, Chapter 0
Application of EN 1991-1-3 – Snow load	Section C, Chapter 1.1.3
Application of EN 1991-1-4 – Wind action	Section C, Chapter 1.1.4

The product has also been verified with respect to the basic technical requirements and supplementary requirements in the P-marking regulation SPCR 005. Classes for the basic requirements and the supplementary requirements: burglar resistance and fire resistance in accordance with Norwegian standard are noted in the appendix.

#### **Associated documents**

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#### Control

It is a requirement that the products are made by companies (manufacturers) who have signed an agreement for continuous inspection by RISE. The manufacturer's quality control system must include the routines stipulated in SPCR 005. If installation can be included in the manufacturer's undertaking the manufacturer's quality control system must also include these routines.

When the building proprietor performs inspection at the building site, he shall check the product marking to ensure that the correct products have been supplied and installed. If there are no assembly markings the building proprietor shall do a site check on the installation to ensure that it has been done in accordance with the drawings for the actual building project.

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#### Marking

Manufactured products and completed installations which comply with the requirements shall be marked with labels related to manufacture or installation.

The manufacturing label must contain the following information:

Holder of certificate Manufacturer P-mark

Product type/designation (voluntary)

Certificate number

Possible class for supplementary requirements
Ordernumber and item number or equivalent
Information that the marking refers to the manufacture

The installation label<sup>1)</sup> must contain the following information: P-mark

Name of manufacturer who is responsible for the installation Information that the marking refers to the installation

Hydro Building Systems Sweden AB Name

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e.g. Sapa 2050 144502 e.g E 30 no.

Refers to manufacture

Name
Refers to installation

#### Basis for judgement/approval

Reports and assessments as in a separate list.

Drawings etc. in Hydro's Product manual and Production binders that the product descriptions above refer to.

#### Comments

Hydro Building Systems Sweden AB, as the holder of this certificate, is responsible for ensuring that the building system complies with the technical requirements of SPCR 005. It is a condition that the relevant manufacturer has a manufacturer's certificate associated with this certificate. This in turn requires that Hydro Building Systems Sweden AB has declared that the manufacturer is "authorised" and that the latter has signed an agreement for continuous inspection by RISE.

Each manufacturer is responsible for ensuring that manufactured products and installation work included in the undertaking comply with the certified version and with other requirements that have been agreed with the customer. The manufacturer is not allowed under any circumstances to P-mark products which do not comply with certified products.

This approval supersedes the previous approval with the same number dated 2019-02-26, with project number 8P06762.

#### Validity

Valid through 2024-02-25.

Johan Åkesson

This is a translation from the Swedish original document. In the event of any dispute as to its content, the Swedish text shall take precedence.

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<sup>1)</sup> Only used if installation forms part of the manufacturer's responsibility.



## Appendix - approved classes for F-marking

Air permeability	Classes ac	cording to EN 12207	Classes according to EN 12152
Windows and glass	Class 4		-
partitions			
Concourse door 2074	Class 2		-
Door 2086 Plus			
Door 2086 EI 30 SX Plus			
Other doors	-		-
Sliding door 2115	Class 3		-
Sliding door 2125	Class 3		-
Lift-slide 2160	Class 4	1	-
Door 2086 Extreme			
Facade 4150	Class 4		Class AE 1200
Facade 4150SX/PH	-		Class AE 1200
Facade 4150SSG	-		Class A4
Facade 5050SG	Class 4		Class A4
Façade window 4074	Class 4		-
Roof 5050	-		Class A4
Roof window 5050	Class 4		-
Folding door 1086	Class 4		-
outwards			
Folding door 1086	Class 3		-
inwards			

Watertightness	Classes according to EN 12208	Classes according to EN 12154
Windows and glass	Class 9A	-
partitions		
Concourse door 2074	Class 7B	-
Door 2086 Plus	Class 4A	-
Door 2086 EI30 SX Plus		
Door 2086 Extreme	Class 9A	-
Other doors	-	-
Sliding door 2115	Class 6B	-
Sliding door 2125	Class 5A	-
Lift-slide 2160		
- 2-rail sash single door	Class E1200 A	-
- 1-rail sash single door	Class 8A	-
- 2-rail sash double door	Class 9A	-
with side panel		
Façade 4150	Class 9A	Class RE 1200
Facade 4150SX/PH	-	Class RE 1200
Facade 4150SSG	-	Class RE 1200

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Watertightness	Classes according to EN 12208	Classes according to EN 12154
Facade 5050SG	Class 9A	Class R7
Façade window 4074	Class 9A	-
Roof 5050	-	Class R7
Roof window 5050	Class 9A	-
Fording door 1086	Class 1A (threshold 86451)	-
outwards	Class 9A (threshold 86450)	-
	Class E900 (threshold 86452)	-
Folding door 1086	Class 3A	-
inwards		

Wind load resistance	Classes according to EN 12210	Classes according to EN 13116
Façade 4150	-	Design wind load 2000 Pa
Façade 4150SX/PH	-	Design wind load 2000 Pa
Façade 4150SSG	-	Design wind load 2000 Pa
Door 2086 Plus Door 2086 EI30 SX Plus	Class C2	-
Door 2086 Extreme	Class C3	
Other doors	- /	-
Roof window 5050	Class C3	-
Folding door 1086	Class C2 (threshold 86451)	-
outwards	Class C3 (threshold 86450)	
	Class C3 (threshold 86452)	
Folding door 1086 inwards	Class C2	-

Burglar resistance *	Classes according to EN 1627
Fixed windows 1074	RC2, RC3
Window 1086	RC2, RC3
Door 2060	RC2, RC3
Door 2074	RC2, RC3
Concourse door 2074	RC2, RC3 (ENV 1627)
Door 2086	RC2, RC3
Façade 4150	RC2, RC3

Fire resistance *	Classes according to BBR 5:231	Classes according to NS 3919
Window 3050	E 30	F30
Window 3074	E 30, EI 15, EI 30 and EI 60	F30, A15, A30 and A60
Door 2050	E 30	F30
Door 2060	E 30, EI 15 and EI 30	F30 and A30
Door 2074	E 30, EI 15, EI 30, EI 60 and Sa	F30, A15, A30 and A60
Door 2086	EI 30, EI 60, S <sub>a</sub> and S <sub>200</sub>	A30, A60
Facade 4150	E 30, EI 15 and EI 30	F30, A15 and A30

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Airborne sound insulation *	R <sub>W</sub> according to EN ISO 717-1**
Window 1074	25 - 35 dB
Window 1086, 1086 SX	32 - 46 dB
Door 2074	25 - 35 dB
Door 2086	34 - 44 dB
Façade 4150SX/PH	38 - 50 db

Other properties and classifications are subject to the general requirements in SPCR 005.

- \* Classes for supplementary requirements apply to products with designs which comply with approved specifications for each class.
- \*\* Adaption terms should be given together with the  $R_w$ -value, for example  $R_w$  (C;C<sub>tr</sub>) = 25 (-1;-4) dB