Environmental Product Declaration
Short Version

EAA - European Aluminium Association
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Producer

EAA-P8/maggio_01-EN **Declaration number**

18/03/2010 **Date of issue**

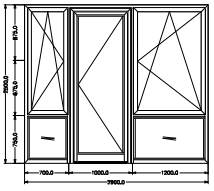
Project Name:	Maggio - 01
Product Name:	Pos 01 - 2.900 * 2.500

Declared product

WICLINE 77 standard **Profile system**

The declared product is specified by the profile series, product name, product characteristics and section shown in the EPD document. It can consist of various building materials and related accessories. **Product type**

Product Characteristics



Product characteristics

Construction size

Amount	28
Width:	2900.00 mm
Height:	2500.00 mm

Transparent area

Transparent area:	4.91 m²

Surface

Surface treatment:	npd

Total weight of the construction

Mass:	2547.8 kg

Characteristics of the construction

Thermal transmittance (uw-value)[W/m?*K]:	1.83
Light transmittance value of glass (TL)[%]:	1 / 1 / 1 / 1 / 1
Solar factor (g-value)[%]:	npd

According to EN 14351-1: npd - no performance determined
Characteristics provided by producer

This validated declaration applies to the above mentioned products for three years from date of issue. The producer is liable for the information and evidence on which the declaration is based. EAA and Hydro Building Systems are not liable for the user input relevant for the declaration. A long version of the EPD can be obtained from the producer. **Validity**

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Comparability

This EPD is based on information modules that do not cover all aspects of the products use. An environmental assessment of a product has to consider also the products application in the building and the respective environmental aspects during the use phase. Comparisons of building products or EPDs without considering the use stages in the context of the environmental impacts of the whole building are not valid. EPDs from different programs may not be comparable.

Product Category Rules

The EPD is based on the PCR for Aluminium Building Products of the EAA Environmental Product Declaration Program. The PCR document is available from the EAA webpage www.aluminium.org.

Verification

Table 1: Verification information

Review of the PCR document by the independent Advisory Board. Chair of the Advisory Board: Dr. Eva Schmincke
Independent verification of the calculation system and the data the declaration is based on according to ISO 14025:2006 [ ] - Internal Verification [x] - External Verification
Verifier of the declaration tool: Dr. Eva Schmincke

Manufacturing

Assemblage of product:

The components, specifically the aluminium profiles which are already surface treated and connected with the thermal bars, are cut and tailored to the respective frame size. The residual aluminium profiles are preserved for recycling. Together with the float glass component and gaskets the frame is assembled. Finally the hardware components are attached to the frame.

The assemblage is placed in .

Environmental management system

Please refer to material safety data sheet(s).

Applications

Building product mostly used in a building envelope. Product application is specified by profile series, product name, product characteristics and section show in the EPD document.

Packaging

Product packaging

Usually the product is not packaged. In rare cases a PE plastic wrap for protection is applied. The plastic foil is fed to the regional municipal waste collection system. The packaged products are placed in transport carriers and are placed on Euro-pallets. For transport to the building site a reusable carrier is applied.

Maintenance and service life

Periodical cleaning and maintenance are basis for a long service life of a building envelope. Cleaning agents must be neutral (ph-value 5-8). For the EPD a periodical cleaning twice a year, maintenance of the hardware every 2 years and a service life of 50 years are used for calculations.

Recycling

Usually for building envelope components demolition and disassembly happens at building site. Glass is broken and longer profiles are cut into pieces. The glass is provided for material recycling. The aluminium as well as the polymers and hardware components are recycled. An average collection rate of 96% for the aluminium is used for the calculations.

Waste treatment

Since most materials of the product are recycled, only a small amount and the losses from the recycling processes have to be landfilled.

Scope of the LCA

The LCA comprises the manufacture of the primary materials regarding to the applied cut off criteria and their assemblage to building products. This includes also the transport of semi-finished products to the assembly site and ready made products to the building site.

For the use phase installation as well as cleaning and maintenance of building products, e.g. windows are considered separately as installation and use/maintenance stage. Any aspects of the product in relation to the operation of the building are out of the scope of this EPD.

The End of Life is considered regarding material recycling of aluminium and other metals. Glass and polymers are leaving the lifecycle without credits. Transport from the building site to recycling sites and landfill are included.

Life Cycle Indicators

Table 2: Life Cycle Indicators

Pos 01 - 2.900 * 2.500		
Life Cycle Indicators	**Unit per product**	**Result for declared Life Cycle**
Primary energy, non-renewable	[MJ]	1.957E005
Primary energy, renewable	[MJ]	2.38E004
Water consumption	[kg]	1.996E005
Depletion of Abiotic Resources (ADP)	[kg Sb eqv.]	75.6
Global Warming Potential (GWP)	[kg CO2 eqv.]	1.343E004
Ozone Depletion Potential (ODP)	[kg R11 eqv.]	0.0009977
Acidification Potential (AP)	[kg SO2 eqv.]	67.06
Eutrophication Potential (EP)	[kg PO4 eqv.]	4.863
Photochemical Ozone Creation Potential (POCP)	[kg ethene eqv.]	6.296
Non hazardous waste	[kg]	525.4
Hazardous waste	[kg]	830.5

The indicators are calculated from average data representive for the EU aluminium production as well as from generic data for a standard glazing unit and standard gaskets as well as standard generic date for thermal bars.

Sections of the profile system