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Rakennustuotedirektiivin (89/106/EEC) artiklan 10,
neuvoston direktiivi 21. joulukuuta 1988,
mukaisesti notifioitu tuotehyväksyntälaitos

EOTAN JÄSEN

Eurooppalainen tekninen hyväksyntä ETA-10/0359 European Technical Approval

Kauppanimi:

Trade name

Jokke parvekelasitusjärjestelmä

Jokke balcony glazing system

Hyväksynnän haltija:

Holder of approval:

Kelosta Oy

Yrittäjätie 1

FI-21290 Rusko

Tuotetyyppi ja sen käyttötarkoitus:

Generic type and use of construction
product:

Parvekkeiden lasitusjärjestelmä

Balcony glazing system

Voimassaoloaika:

Validity from/to

27.10.2010

26.10.2015

Valmistuspaikka:

Manufacturing plants:

Kelosta Oy, Yrittäjätie 1

FI-21290 Rusko

Tämä hyväksyntä sisältää

This European Technical Approval
contains

sivuja/liitteitä

pages/annexes

11 sivua sisältäen 2 liitettä

11 pages including 2 annexes



Eurooppalainen tekninen hyväksyntäorganisaatio

European Organisation for Technical Approvals

I LEGAL BASES AND GENERAL CONDITIONS

1. This European Technical Approval is issued by the VTT Expert Services Oy in accordance with:
 - Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products¹, modified by the Council Directive 93/68/EEC², and Regulation (EC) N° 1882/2003 of the European Parliament and of the Council³,
 - Laki rakennustuotteiden hyväksynnästä (230/2003) luvut 3 ja 10, Ympäristöministeriön asetus rakennustuotteiden hyväksynnästä 3 § sekä Ympäristöministeriön 18.12.2009 antama valtuutus päätös (YM19/629/2009).
 - Common Procedural Rules for Requesting, Preparing and the Granting of European Technical Approvals set out in the Annex of Commission Decision 94/23/EC⁴;
 - CUAP for European Technical Approval of "Balcony glazing system without vertical frames", edition June 2004.
2. VTT Expert Services Oy is authorised to check whether the provisions of this European Technical Approval are met. Checking may take place in the manufacturing plant(s). Nevertheless, the responsibility for the conformity of the products to the European Technical Approval and for their fitness for the intended use remains with the holder of the European Technical Approval.
3. This European Technical Approval is not to be transferred to manufacturers or agents of manufacturer other than those indicated on page 1; or manufacturing plants other than those indicated on page 1 of this European Technical Approval.
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6. The European Technical Approval is issued by VTT Expert Services Oy in English. This version corresponds to the version circulated within EOTA. Translations into other languages have to be designated as such.

1 Official Journal of the European Communities N° L 40, 11.2.1989, p. 12
2 Official Journal of the European Communities N° L 220, 30.8.1993, p. 1
3 Official Journal of the European Commission N° L 284, 31.10.2003, p 1
4 Official Journal of European Communities N° L 17, 20.1.1994, p. 34

II SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1. Definition of the product and intended use

1.1 Definition of the construction product

The balcony glazing system consist of upper (flat) and lower (L-bar) aluminium mounting bars, upper and lower aluminium profiles (railings), upper and lower aluminium glazing lists, plastic hinges and rollers, toughened glass panes, sealing strips and fastening screws or studs for fastening the glazing into glazing profiles. All aluminium parts are painted. The glazing system includes also grips for movement of separate panes. Detailed description of components and their types is in the annex 1.

Glass panes can one by one glide into side direction and turned inward so that the balcony or terrace front is free from glazing. The profiles separate glass panes so that when the system is open the glass pane surfaces do not touch each other.

The system can include also external sills and/or flashings and/or vertical edge protection strips, if requested.

Thicknesses of glass panes are 6, 8 or 10 mm depending on the glass panel size and wind load resistance requirements. Most usual panel widths are 550 - 850 mm. The minimum width of the glass pane is 300 mm and maximum width is 1000 mm. Maximum height of the glass panes is 3000 mm. The edges and possible drillings are made according to the standard EN 12150-1. The lower aluminium profile includes water outlet holes. Example drawings of the glazing system are in the annex 2.

Fastening of the glazing system into balcony railing and roof shall be done according to the type of the surrounding construction and instructions of the manufacturer. The fastenings are not part of this ETA.

1.2 Intended use

The balcony glazing system is used to protect balcony interior from rain snow, wind and dirt. The glazed balcony is not totally water or air tight and is not warm or half warm space. For comfort purposes it can however be heated up if so wanted.

Balconies, in which the glazing system is installed, shall have railing to protect from falling. The safety requirements of the balcony railings and parapets are according to the national provisions.

The breakage of the toughened glass panes take place safely to small pieces, if impacts higher than planned, hits into the panes.

The provisions made in this ETA are based on an assumed working life of the balcony glazing system of 25 years provided that the conditions laid down in sections 4.2, 5.1 and 5.2 for the packaging, transport, storage, installation, use maintenance and repair are met. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

2. Characteristics of product and methods of verification

The methods of verification and characteristics of the balcony glazing system evaluated in this ETA are as follows:

CUAP Table 1	Characteristic	Assessment of the characteristic
ER2	2.2 Safety in case of fire	NPD
ER 3	2.3 Hygiene, health and environment Dangerous substances Ventilation of balcony as dampness control	No dangerous materials *) Te air gaps between the glass panes ensure air permeability of the glazing, which diminish risk of dampness or condensation
ER 4	2.4 Safety in use Wind load resistance, EN 12211 and EN 12210 Impact resistance of the system, EN 12600 Impact from indoors and outdoors	1200 Pa (6 x 611 x 1660 mm glass panes) 190 mm (6 x 611 x 1712 mm glass panes) (glass panes did not broke in the tests)
ER 5	2.5 Protection against noise Sound insulation	NPD
Durability	2.7 Related aspects of serviceability UV-ageing of the polymeric parts of the glazing system, 1000 h, ISO 4892-2 Corrosion resistance of the metallic parts of the glazing system	No influence on performance, slight colour change in some components Protected from rain, NPD

*In addition of the specific clauses relating to dangerous substances contained in this European Technical Approval, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products directive, these requirements need also to be compiled with, when and where they apply.

3. Evaluation and attestation of conformity and CE marking

3.1 System of attestation of conformity

According to the decision 96/580/EC of 24.06.1996 of the European Commission the system 3 of attestation of conformity applies.

This system of attestation of conformity is defined as follows:

System 3: declaration of conformity of the product by the manufacturer on the basis of:

- (a) Tasks for the manufacturer:
 - (1) factory production control;
- (b) Tasks for the approved body:
 - (2) initial type testing of the system;

Note: Approved bodies are also referred to as "notified bodies"

3.2 Responsibilities

3.2.1 Tasks of the manufacturer

3.2.1.1 Factory production control

The manufacturer shall exercise permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, including the records of results performed. This production control system shall insure that the product is in conformity with this European technical approval.

The manufacturer may only use initial constituent materials stated in the technical documentation of this European technical approval.

The factory production control shall be in accordance with the "Control plan (16.08.2010) relating to the European technical approval ETA-10/0359 issued on 27.10.2010" which is part of the technical documentation of this European technical approval. The "Control plan" is laid down in the context of the factory production control system operated by the manufacturer and deposited at the VTT Expert Services Oy.

The results of factory production control shall be recorded and evaluated in accordance with the provisions of the "Control plan"⁵.

3.2.1.2 Corner stones of the control plan

The manufacturer shall conduct internal quality control, which include the following stages:

- Controls of incoming raw materials, glass, aluminium profiles, strips, sill steel sheet, other components (appearance, dimensions, material certificates)
- Controls of appearance and dimensions of the cut glass panes, profiles and strips
- Control of dimensions and safe breakage of the glass panes after toughening
- Control of the glazing result (appearance, dimensions)
- Control of out going delivery (comparison of request with the content of sending)
- Handling of reclamations

⁵ The "control plan" is a confidential part of the European technical approval and only handed over to approved body or bodies involved in the procedure of attestation of conformity. See section 3.2.2

⁶Notes on the CE-marking are stated in Guidance Paper D of the European Commission "CE-marking under the Constructions products Directive, Brussels 01 January 2002

3.2.1.3 Other tasks of the manufacturer

The manufacturer shall make a declaration of conformity, stating that the construction product is in conformity with the provisions of the European technical approval ETA-10/0359 issued on the 27.10.2010.

3.2.2 Tasks of approve bodies

The approved body (bodies) shall perform the initial type testing of the product (there is no need to repeat the tests made for this ETA).

3.3 CE-marking

The CE-marking⁶ shall be affixed on the packaging or on the delivery tickets put into the packages. The symbol "CE" shall be accompanied by the following additional information:

- the name and address of the producer (legal entity responsible for the manufacture)
- the last two digits of the year in which the CE marking was affixed
- the number of the European Technical Approval, ETA-10/0359
- wind pressure resistance
- impact resistance

4. Assumptions under which the fitness of the product for the intended use was favourably assessed

4.1 Manufacturing

The European technical approval is issued for the product on the basis of agreed information deposited with VTT Expert Services Oy, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited information being incorrect, should be notified to VTT Expert Services Oy the changes are introduced. VTT Expert Services Oy will decide whether or not such changes affect the ETA and consequently the validity of CE-marking on the basis of the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

4.2 Installation

Balcony glazing systems are intended to be used only in applications that fulfil the criteria of the clause 2. Installation work shall be performed according to the instructions of the manufacturer by the installations companies approved and trained by the ETA holder.

Special attention shall be paid to the instructions concerning fastening and fastening screws or anchors used to fasten the balcony glazing system to the load bearing construction. All rivets, bolts and screws shall be stainless steel. The fastening devices for load bearing structures shall be corrosion resistant wedges or expansion anchors or bolts of the sized defined in the installation instructions of the manufacturer.

5. Indications to the manufacture

5.1 Packaging transport and storage

Transport and storage of the components of the balcony glazing system shall be according to the instructions of the manufacturer. Glass panes are transported and stored so that they do not touch into each other.

5.2 Use, maintenance and repair

The use, repair and maintenance instructions are included in each delivery.

In the glazing system one glass pane can be locked in the ventilation position. The other panes can be the moved so that a narrow gaps form between the panes, which ensure good ventilation.

On behalf of VTT Expert Services Oy

Espoo 27.10.2010



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Table1. Main components of the balcony glazing system

Component	Specification	Remarks
Aluminium profiles: <ul style="list-style-type: none"> • with polyester paint powder coated upper and lower profiles and glazing beads, (EN AW-6063 T5 and T6) 	EN 10204 EN 573-3 EN 755-2	Certificate of compliance with the order "2.1"
Glass: <ul style="list-style-type: none"> • thermally toughened float glass 	EN 572-2 EN 12150-1	Certificate of compliance with the order Thermally toughened soda lime silicate glass
Hinges and sliding parts <ul style="list-style-type: none"> • hinges, polyamide • sliding parts, polyamide • Locking parts, polyamide • Wheel parts, polyoxymethylene • Plug parts, polyamide 		Property data sheets by the raw material producer
Seals <ul style="list-style-type: none"> • strips and profiles, silicone, EPDM, or PVC 		Can be changed

Figure 1. Balcony glazing system (including component numbers)

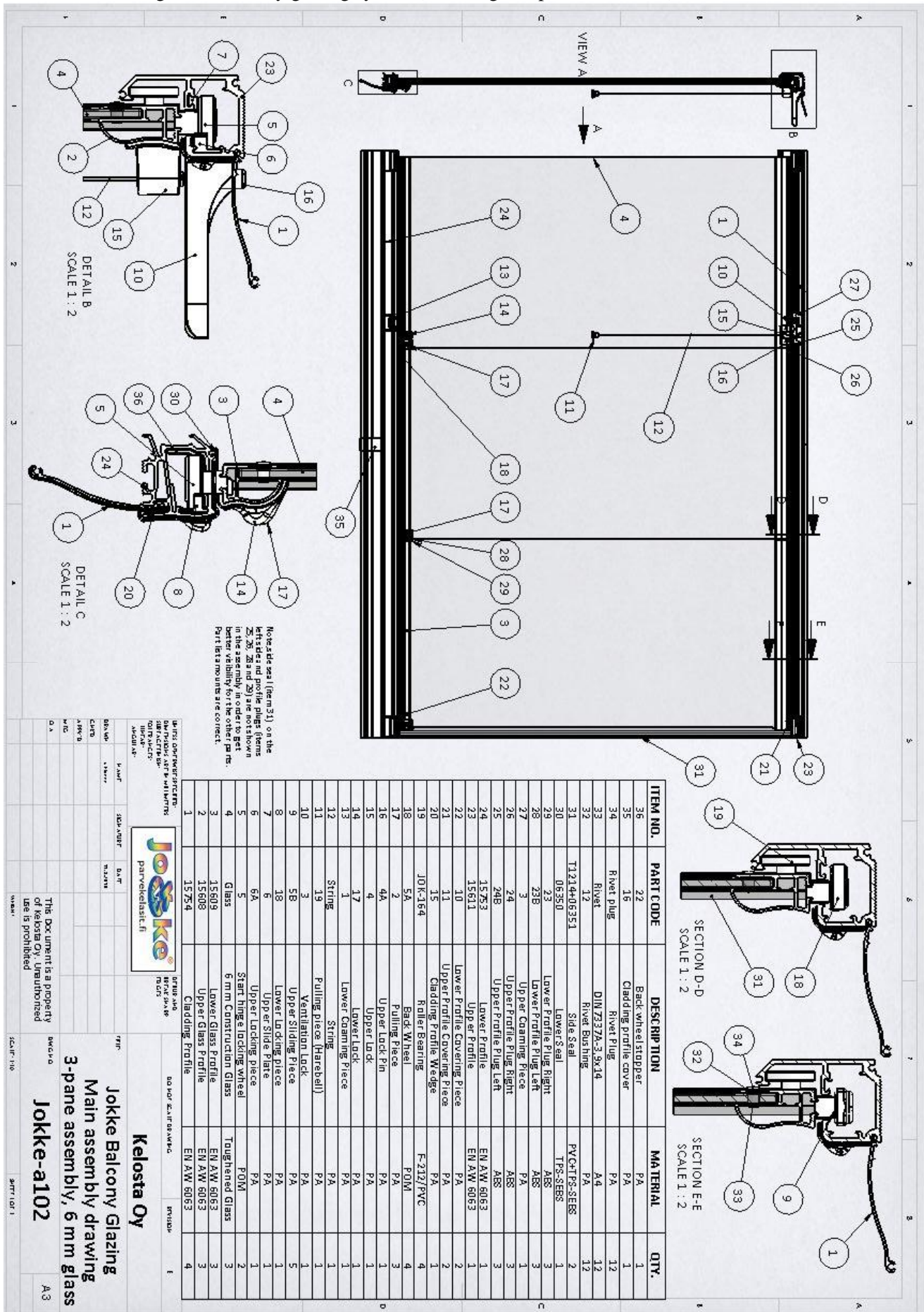
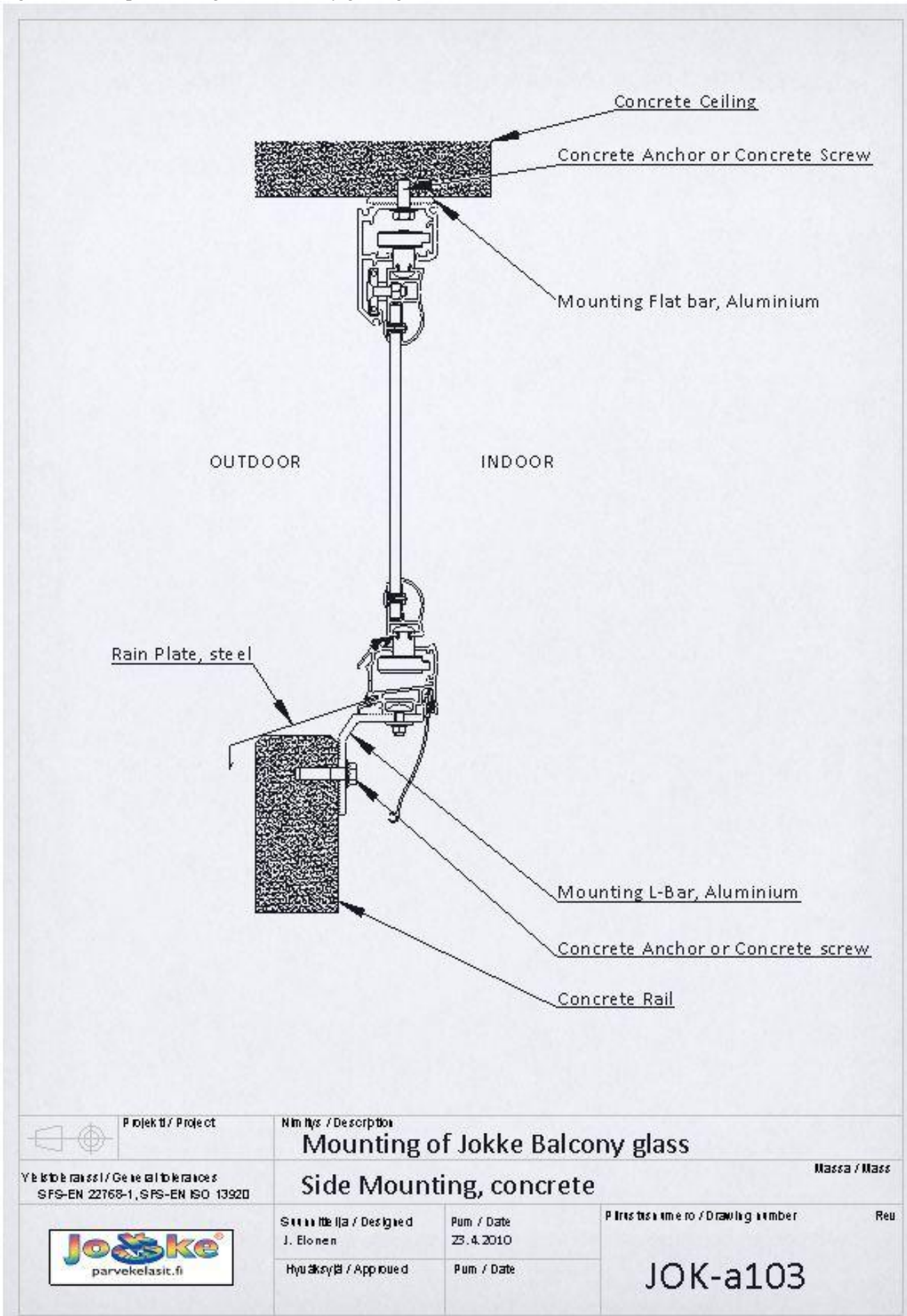
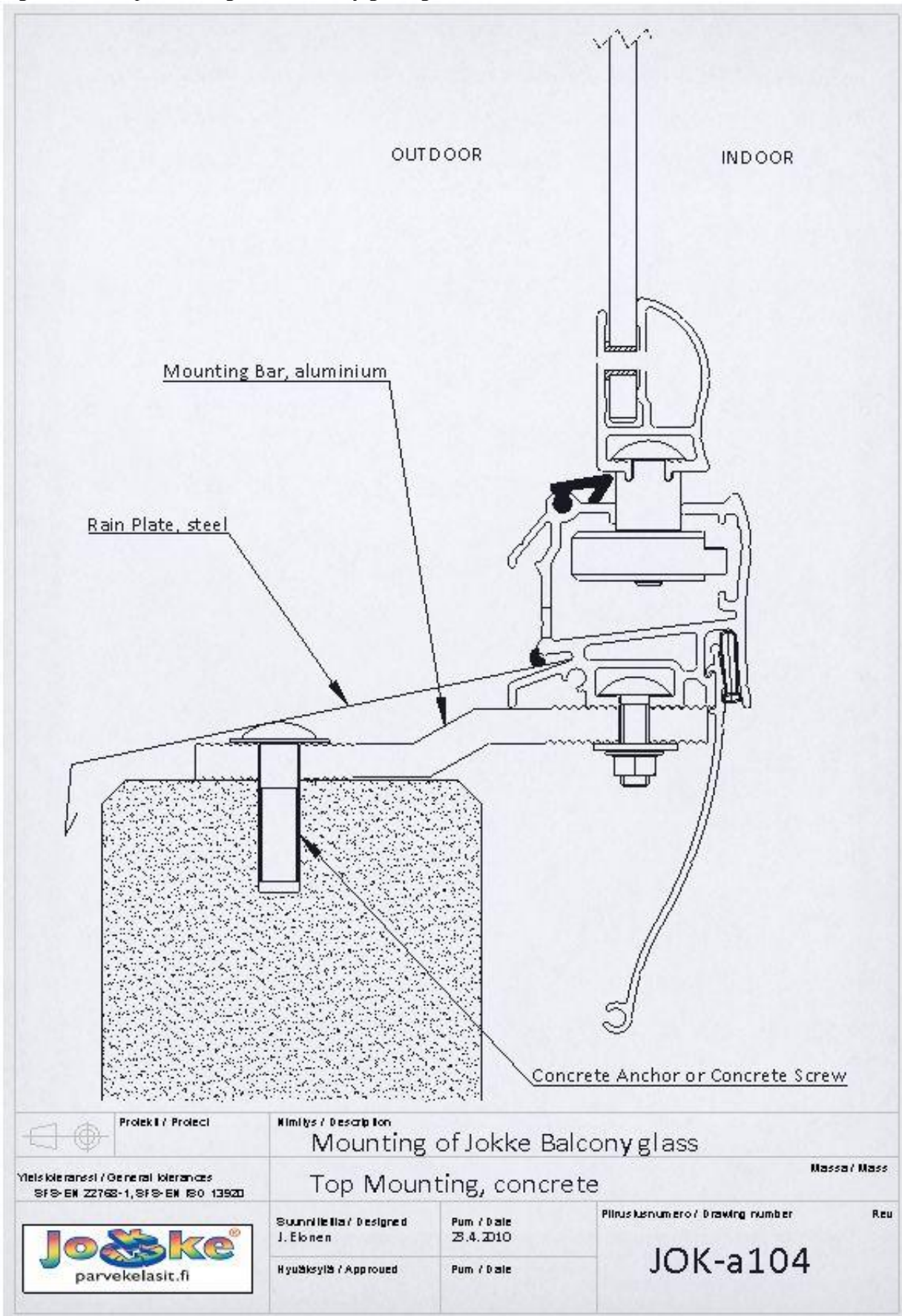


Figure 2. Example drawing of the balcony glazing installation



	Projekti / Project	Nimi / Description Mounting of Jokke Balcony glass	
Yhteisö / Standard / General references SFS-EN 22768-1, SFS-EN ISO 13920		Side Mounting, concrete	
parvekelasit.fi		Suunnittelija / Designed J. Elonen	Pvm / Date 23.4.2010
		Hyväksyjä / Approved	Pvm / Date
		Piirustuksen numero / Drawing number JOK-a103	

Figure 3. Example drawing of the balcony glazing installation



	Projekti / Project	Nimitys / Description Mounting of Jokke Balcony glass	
Yleisluokitus / General classification SFS-EN 22768-1, SFS-EN ISO 13920		Top Mounting, concrete	
		Suunnittelija / Designer J. Elonen	Pvm / Date 28.4.2010
		Hyväksyjä / Approved	Piirustenumero / Drawing number Reu JOK-a104