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European Technical Assessment Body
for construction products



European Technical Assessment

ETA-21/0144
of 7 January 2026

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Product family
to which the construction product belongs

Self-supporting translucent roof and wall kits

Manufacturer

dott. Gallina S.r.l.
Strada Carignano, 104
10040 LA LOGGIA (TO)
ITALIEN

Manufacturing plant

dott. Gallina S.r.l.
Strada Carignano, 104
10040 LA LOGGIA (TO)
ITALIEN

This European Technical Assessment contains

99 pages including 92 annexes which form an integral part of this assessment

This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of

EAD 220089-00-0401-v01

This version replaces

ETA-21/0144 issued on 11 October 2022

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Specific Part

1 Technical description of the product

1.1 Kit description and setup

The "arcoPlus 547, arcoPlus 549, arcoWall 5613, Prokulit PC 540-3, -PC 540-7, -PC 560-11" roof and wall kits are made up of components which are factory-made and assembled on site as a self-supporting translucent roof or wall kit.

An essential part of the kit are translucent PC multi-wall sheets in accordance with EN 16153, which can be connected to an area of any size by means of a joint on the long sides. The PC sheets are housed in aluminium covering profiles, which are optionally thermally separated by plastic insulating bars. The kit can be constructed as single-span system or, with additional intermediate supports transverse to the main bearing direction, as multi-span system. To withstand wind suction on continuous systems, they are held on internal supports by lift anchors.

The following components are used for the manufacture of the "arcoPlus 547, arcoPlus 549, arcoWall 5613, Prokulit PC 540-3, -PC 540-7, -PC 560-11" self-supporting translucent roof and wall kit

- translucent polycarbonate (PC) multi-wall sheets of thickness 40 mm (arcoPlus 547, arcoPlus 549, Prokulit PC 540-3, Prokulit PC 540-7)
- translucent polycarbonate (PC) multi-wall sheets of thickness 60 mm (arcoWall 5613, Prokulit PC 560-11)
- aluminium covering profiles
- aluminium lift anchors
- sealing profiles

The components and the system setup of the product are given in Annexes A 1.1, A 1.2 and A 2.1.1 to A 2.2.14.

The material values, dimensions and tolerances of the roof kit not indicated in the annexes shall correspond to the values laid down in the technical documentation¹ of this European Technical Assessment.

¹ The technical documentation comprises all information of the holder of this ETA necessary for the production, installation and maintenance of the roof and wall kit; these are in particular the structural analysis, design drawings and the manufacturer's installation instructions. The part to be treated confidentially is deposited with Deutsches Institut für Bautechnik.

1.1.1 Multi-wall sheets

The following multi-wall sheets made from polycarbonate (PC) in accordance with the harmonised European standard EN 16153 are used.

Table 1:

Manufacturer	Trade name	Sheet height [mm]	Annex
dott. Gallina S.r.l. Strada Carignano, 104 10040 LA LOGGIA (TO) ITALIEN	arcoWall 5613	60	A 4.1.1
	Prokulit PC 560-11	60	A 4.2.1
	arcoPlus 547	40	A 4.3.1
	arcoPlus 549	40	A 4.4.1
	Prokulit PC 540-3	40	A 4.5.1
	Prokulit PC 540-7	40	A 4.6.1

The multi-wall sheets have unfilled hollow chambers and weatherproofing on the outer surfaces which are unmistakably identified.

1.1.2 Covering Profiles

The aluminium profiles are made from the aluminium alloy EN AW-6060, T5, T6 or T66 in accordance with EN 755-2 and have the dimensions given in Annexes A 3.1.1 to A 3.1.12 and A 3.2.1 to A 3.2.14.

For aluminium covering profiles, which are thermally separated, the plastic insulating bars consist of polyamide PA66 with a glass fiber content of about 25 % and are produced by extrusion of the molding material ISO 16396-PA66, GF25-EC2L. This corresponds to the deposit at the Deutsches Institut für Bautechnik.

1.1.3 Lift anchors

The aluminium profiles are made from EN AW-6060 T6 or EN AW-6082 T6 in accordance with EN 755-2 and have the dimensions given in Annexes A 3.1.13 to A 3.1.15 and A 3.2.15 to A 3.2.17.

1.1.4 Sealing profile

The sealing profiles are made from ethylene-propylene terpolymer (EPDM) or thermoplastic elastomer (TPE) and has the dimensions and Shore hardness A in accordance with EN ISO 868 given in Annex A 3.4.1.

1.1.5 Additional profiles

The aluminium profiles are made from the aluminium alloy EN AW-6060, T5, T6 or T66 in accordance with EN 755-2 and have the dimensions given in Annexes A 3.3.1 and A 3.3.2.

1.1.6 "arcoPlus 547, arcoPlus 549, arcoWall 5613 Prokulit PC 540-3, -PC 540-7, -PC 560-11" roof and wall kits

The roof and wall kits are made up of the components described in Section 1.1.1 to 1.1.5.

The following supporting systems in accordance with table 2 are possible:

Table 2:

Variation	Multi-wall sheet Annex	Lift Anchor/ Annex	Support system
arcoWall 5613	A 4.1.1		single-span
arcoWall 5613 F60		4715 60 mm/ A3.1.13	multi-span
arcoWall 5613 F120		4715 120 mm/ A3.1.13	multi-span
Prokulit PC 560-11	A 4.2.1		single-span
Prokulit PC 560-11 F120		642242/ A3.2.16	multi-span
arcoPlus 547	A 4.3.1		single-span
arcoPlus 547 F60		4050 60 mm/ A3.2.15	multi-span
arcoPlus 547 F120		4050 120 mm/ A3.2.15	multi-span
arcoPlus 549	A 4.4.1		single-span
arcoPlus 549 F60		4050 60 mm/ A3.2.15	multi-span
arcoPlus 549 F120		4050 120 mm/ A3.2.15	multi-span
Prokulit PC 540-3	A 4.5.1		single-span
Prokulit PC 540-3 F60		642240/ A3.2.16	multi-span
Prokulit PC 540-3 F120		642242/ A3.2.16	multi-span
Prokulit PC 540-3 VA		642200/ A3.2.17	multi-span
Prokulit PC 540-7	A 4.6.1		single-span
Prokulit PC 540-7 F60		642240/ A3.2.16	multi-span
Prokulit PC 540-7 F120		642242/ A3.2.16	multi-span
Prokulit PC 540-7 VA		642200/ A3.2.17	multi-span

Table 3: Reaction to fire of the components

Multi-wall sheets	Class in accordance with the DoP of EN 16153/ at least Class E as per EN 13501-1
Sealing profile/ Plastic insulating bars of aluminium covering profiles	No contribution to fire spread in accordance with EOTA TR 021 (Version June 2005)
Covering profiles, Lift anchors	Class A1 as per EN 13501-1 (without further testing as per Commission Decision 96/603/EC, as amended by Commission Decisions 2000/605/EC and 2003/424/EC)

2 Specification of the intended use in accordance with the applicable European Assessment Document

The self-supporting translucent roof and wall kit may be used in the roof or wall area for open or closed structures. The multi-wall sheets may be combined to form continuous areas of any length over a rectangular ground plan.

The pitch of a roof's covering is at least 5°. The roof and wall kit is not a walk-on system; it may not be used for bracing of the support structure.

The performance data given in Section 3 is only valid if the roof kit is used in compliance with the specifications and the conditions given in Annexes A to C.

The verifications and assessment methods on which this European Technical Assessment (hereinafter referred to as "ETA") is based lead to the assumption of a working life of the roof and wall kit of at least ten years. The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer, 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 structure.

3 Performance of the product and references to the methods used for its assessment

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Fire performance in case of external fire exposure	No performance assessed
Reaction to fire	Class E
Resistance to fire	No performance assessed

3.2 Hygiene, health and the environment (BWR 3)

No performance assessed

3.3 Safety and accessibility (BWR 4)

Essential characteristic	Performance
Characteristic structural resistance resulting from downward loads and uplift loads [kN/m ²]	See Annex B 2.1
Moment and support reaction at intermediate supports for multi-span systems	See Annex B 2.2
Material-dependent influencing factor for the effect of load duration	See Annex B, section B 1.2
Material-dependent influencing factor for ageing and environmental effects	See Annex B, section B 1.3
Material-dependent influencing factor for thermal effects	See Annex B, section B 1.3
Deformation behaviour	See Annex B, section B 1.4
Transverse tensile strength capacity	See Annex B, section B 1.5
Resistance to damage by impact loads with a soft object (50 kg)	SB 0 (no requirement)
Resistance to impact loads from a hard object (250 g)	Passed in accordance with EN 16153

3.4 Protection against noise (BWR 5)

No performance assessed

3.5 Energy economy and heat retention (BWR 6)

No performance assessed

3.6 Further essential characteristic

Essential characteristic	Performance
aspects of durability	See Annex A 4

4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

According to European Assessment Document (EAD) 220072-00-0401-v01, the legal basis for roof construction systems is as follows: 98/600/EG

The system to be applied is: 3

According to European Assessment Document (EAD) 220072-00-0401-v01, the legal basis for wall construction systems is as follows: 2003/640/EC

The system to be applied is: 2⁺

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

The following technical specifications are referred to:

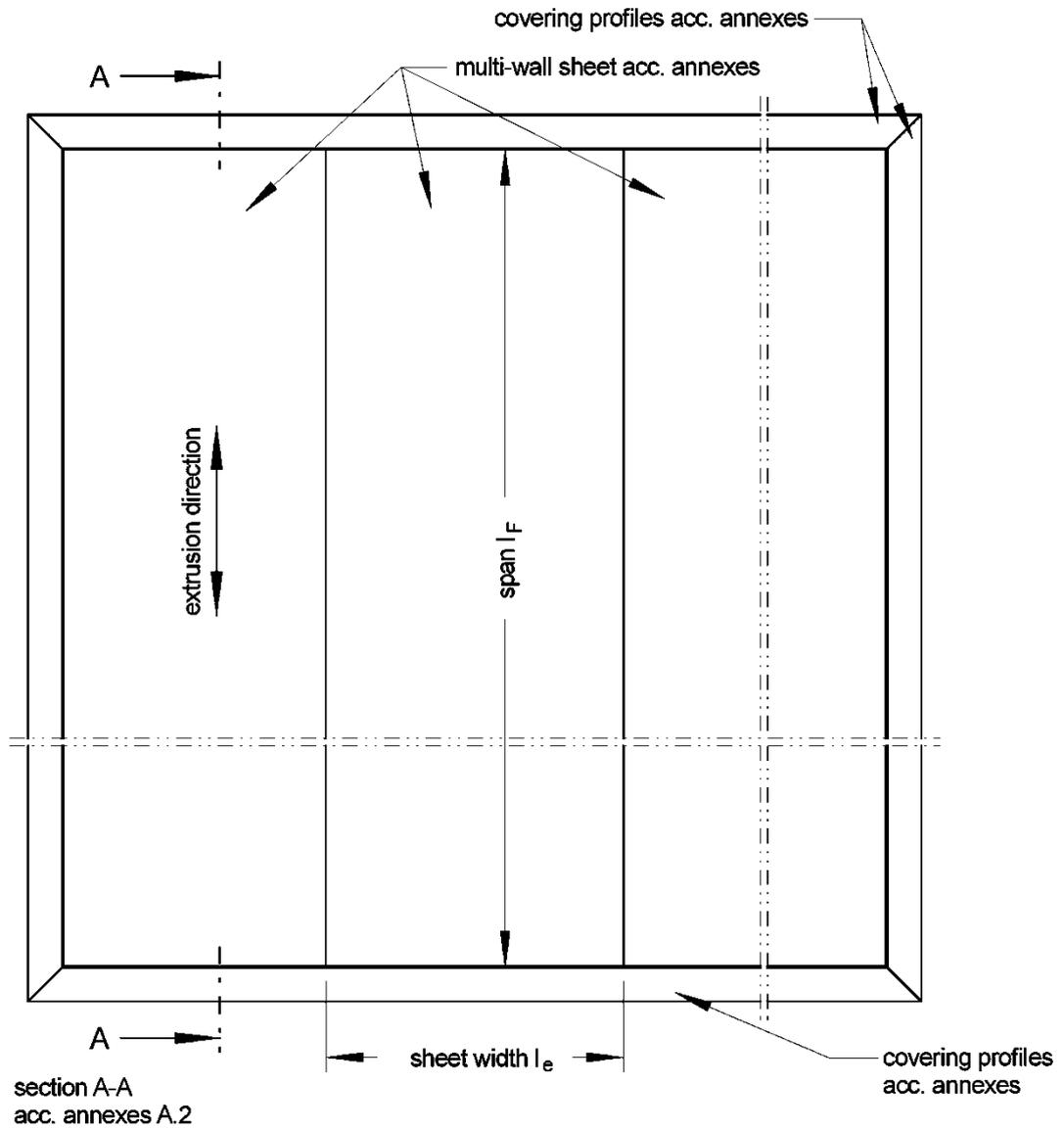
EAD 220089-00-0401-v01	Self-supporting translucent roof kits with covering made of plastic sheets: opaque sheets and self-supporting wall kits, including opaque sheets
EN 16153:2015-05	Light transmitting flat multiwall polycarbonate (PC) sheets for internal and external use in roofs, walls and ceilings - Requirements and test methods
EN 755-2:2016-10	Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 2: Mechanical properties
EN ISO 868:2003-10	Plastics and ebonite - Determination of indentation hardness by means of a durometer (Shore hardness)
DIN EN 13501-1:2019-05	Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests

Issued in Berlin on 7 January 2026 by Deutschen Institut für Bautechnik.

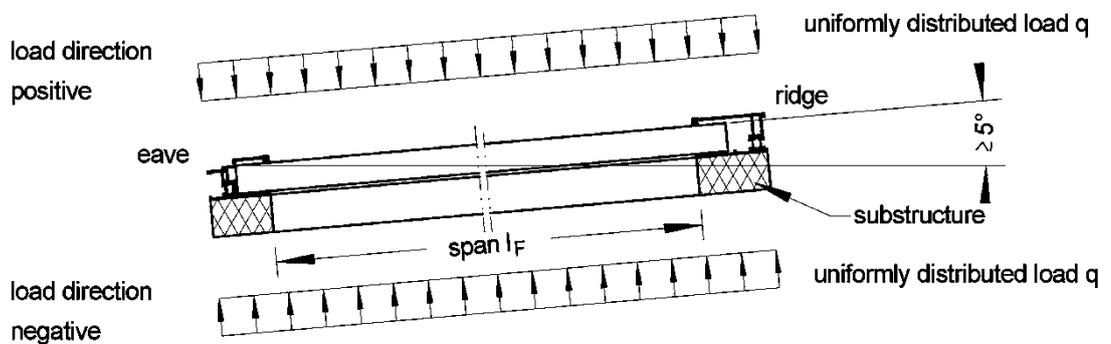
Inka Fischer
Head of Section

beglaubigt:
Wachner

Front view roof and wall single span system



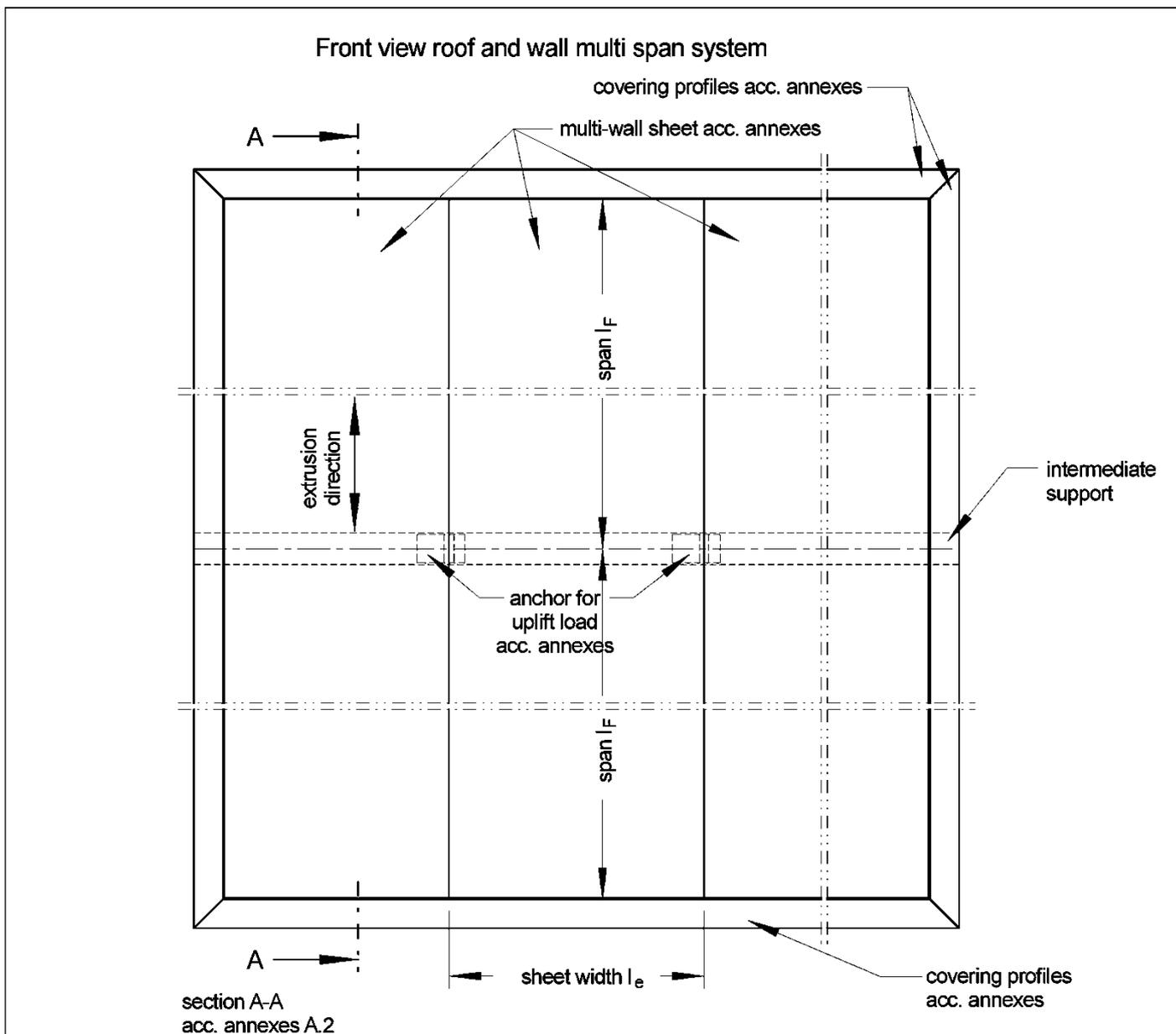
Schematic figure longitudinal section roof



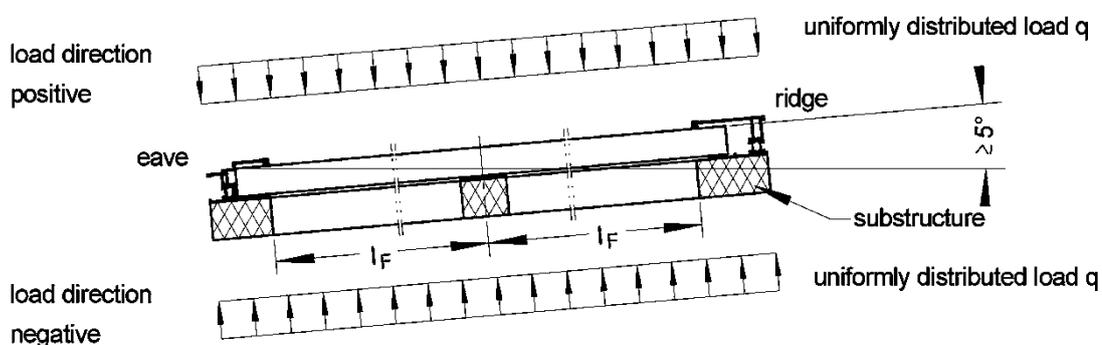
arcoPlus 547, arcoPlus 549, arcoWall 5613
 Prokulit PC 540-3, -PC 540-7, -PC 560-11

Assembly situation single-span-system

Annex A 1.1



Schematic figure longitudinal section roof

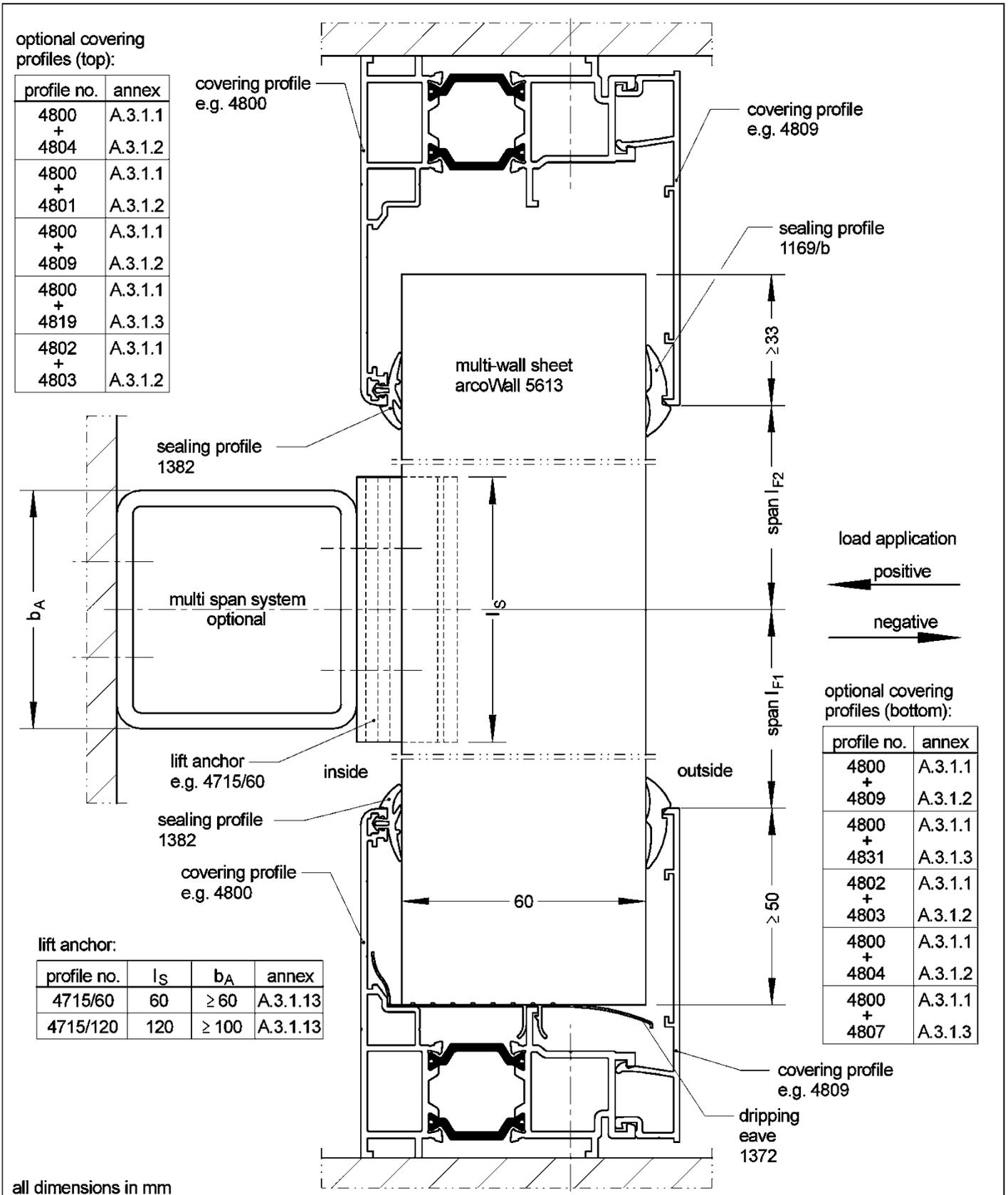


arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Assembly situation multi-span-system

Annex A 1.2

English translation prepared by DIBt

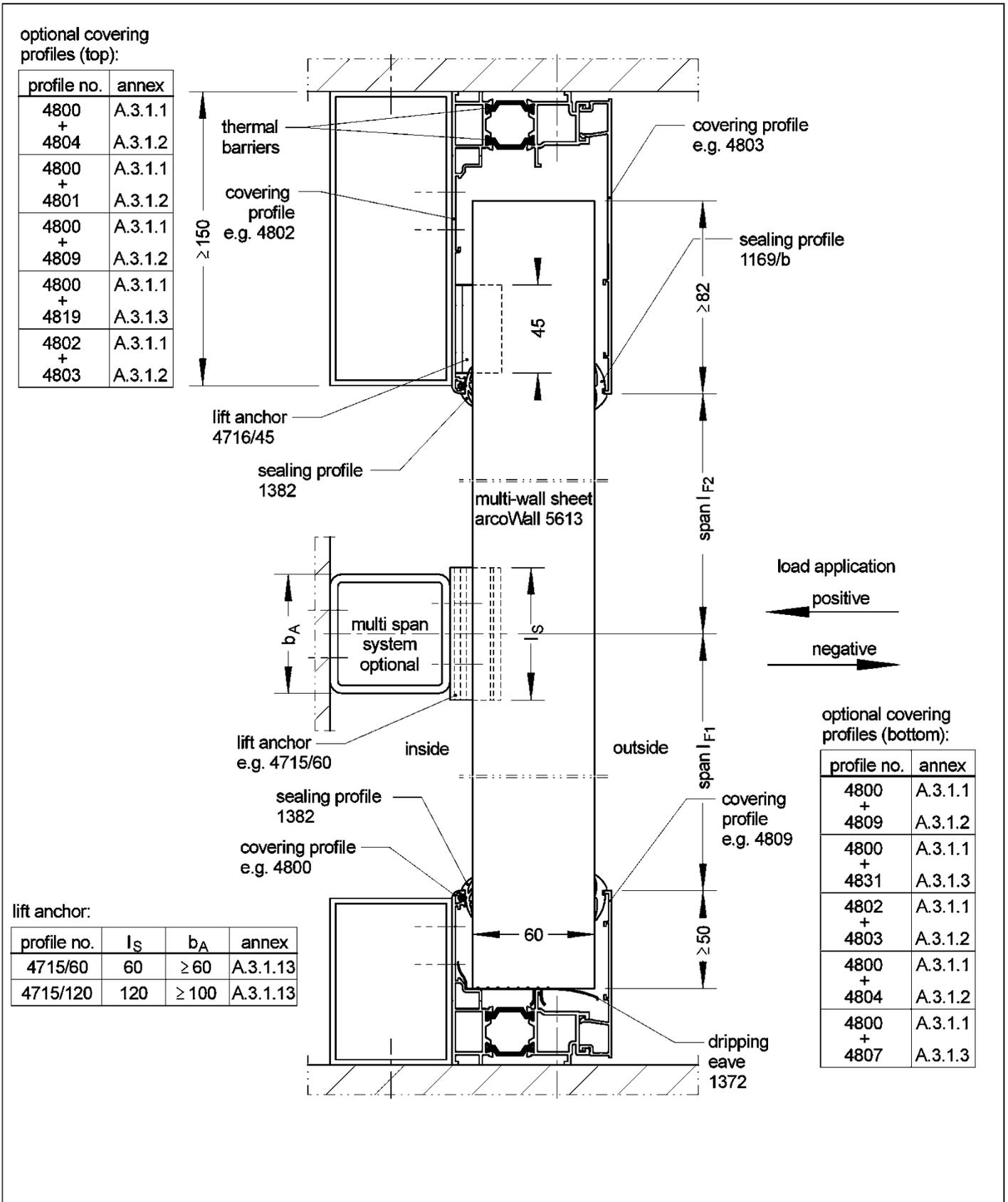


arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall installation
Example for assembly in reveal with thermal barriers
for: "arcoWall 5613"

Annex A 2.1.1

English translation prepared by DIBt



optional covering profiles (top):

profile no.	annex
4800 + 4804	A.3.1.1 + A.3.1.2
4800 + 4801	A.3.1.1 + A.3.1.2
4800 + 4809	A.3.1.1 + A.3.1.2
4800 + 4819	A.3.1.1 + A.3.1.3
4802 + 4803	A.3.1.1 + A.3.1.2

optional covering profiles (bottom):

profile no.	annex
4800 + 4809	A.3.1.1 + A.3.1.2
4800 + 4831	A.3.1.1 + A.3.1.3
4802 + 4803	A.3.1.1 + A.3.1.2
4800 + 4804	A.3.1.1 + A.3.1.2
4800 + 4807	A.3.1.1 + A.3.1.3

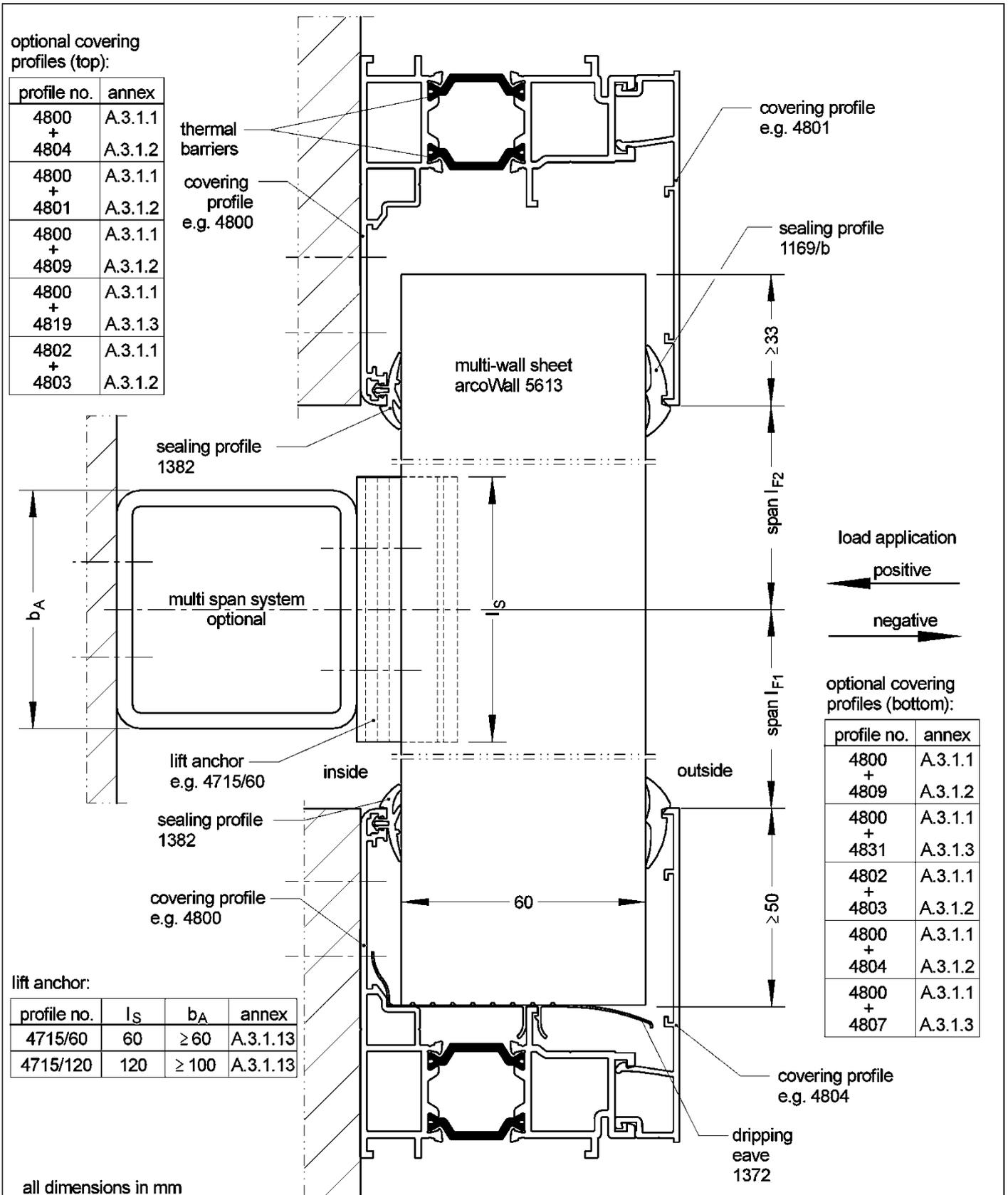
lift anchor:

profile no.	l_s	b_A	annex
4715/60	60	≥ 60	A.3.1.13
4715/120	120	≥ 100	A.3.1.13

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall installation
Example for assembly in reveal with thermal barriers
for: "arcoWall 5613"

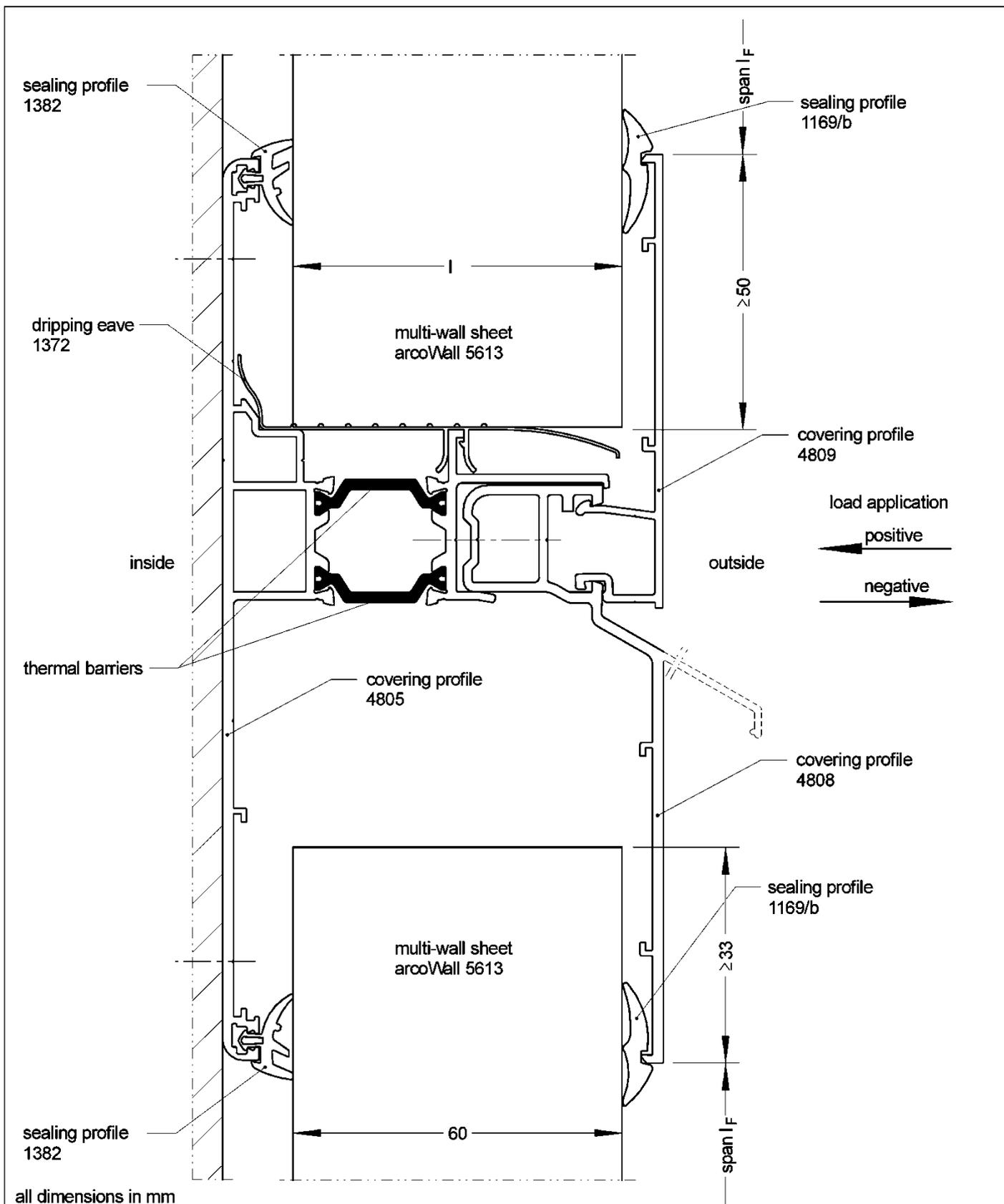
Annex A 2.1.2



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example curtain wall installation with thermal barriers
for: "arcoWall 5613"

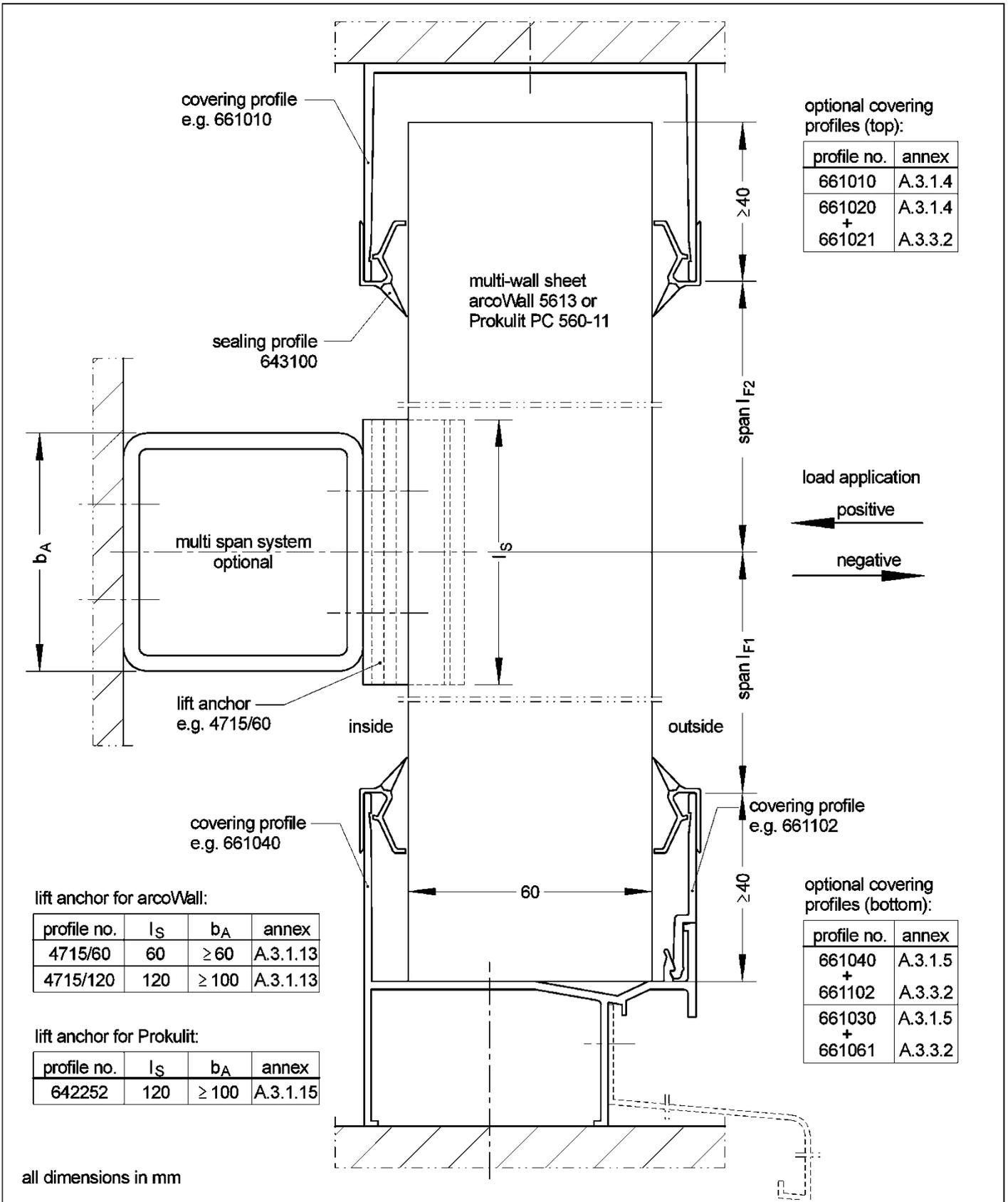
Annex A 2.1.3



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall installation
Example for installation transomprofile with thermal barriers
for: "arcoWall 5613"

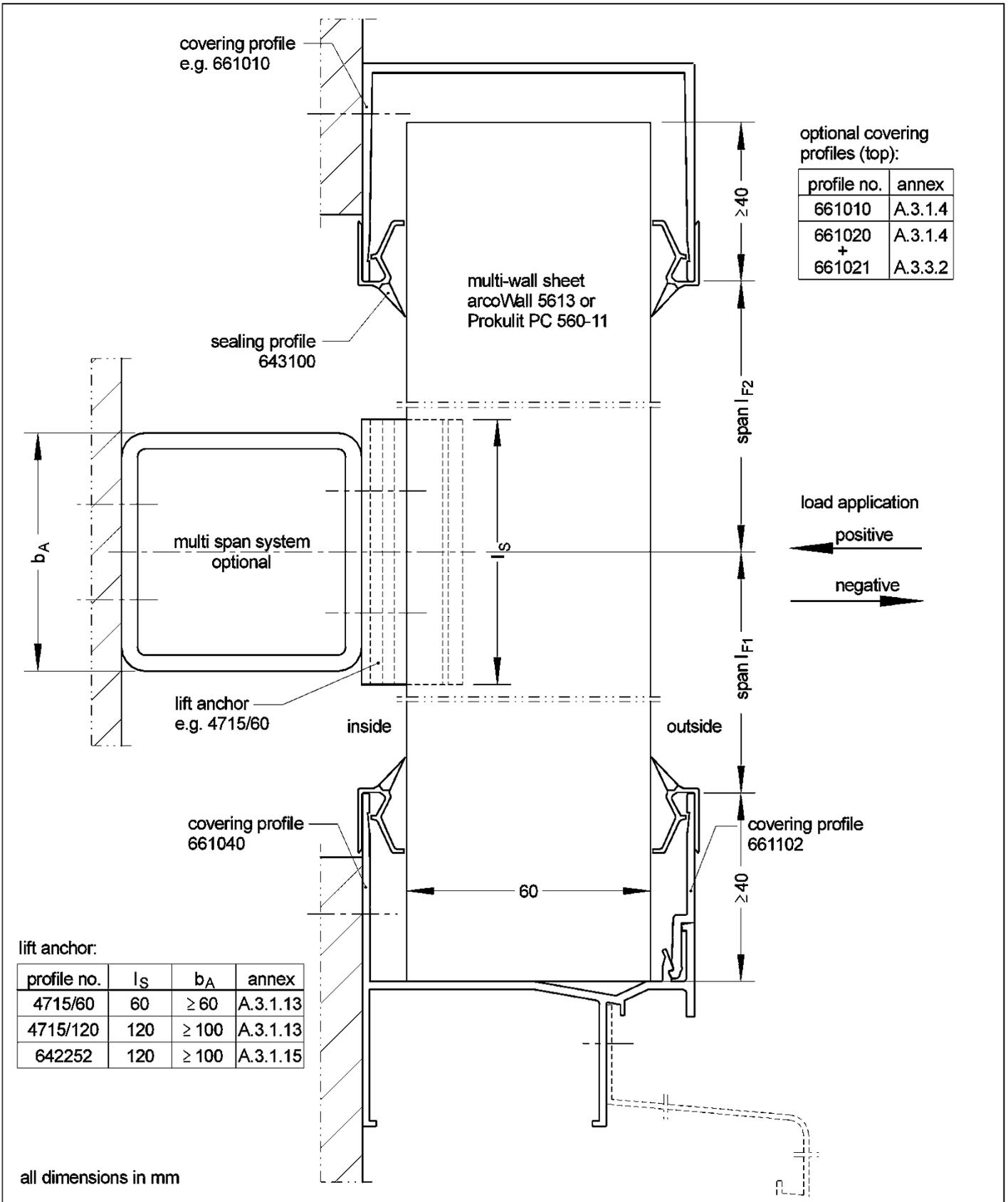
Annex A 2.1.4



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example for assembly in reveal without thermal barriers
for: "arcoWall 5613" or "Prokulit PC 560-11"

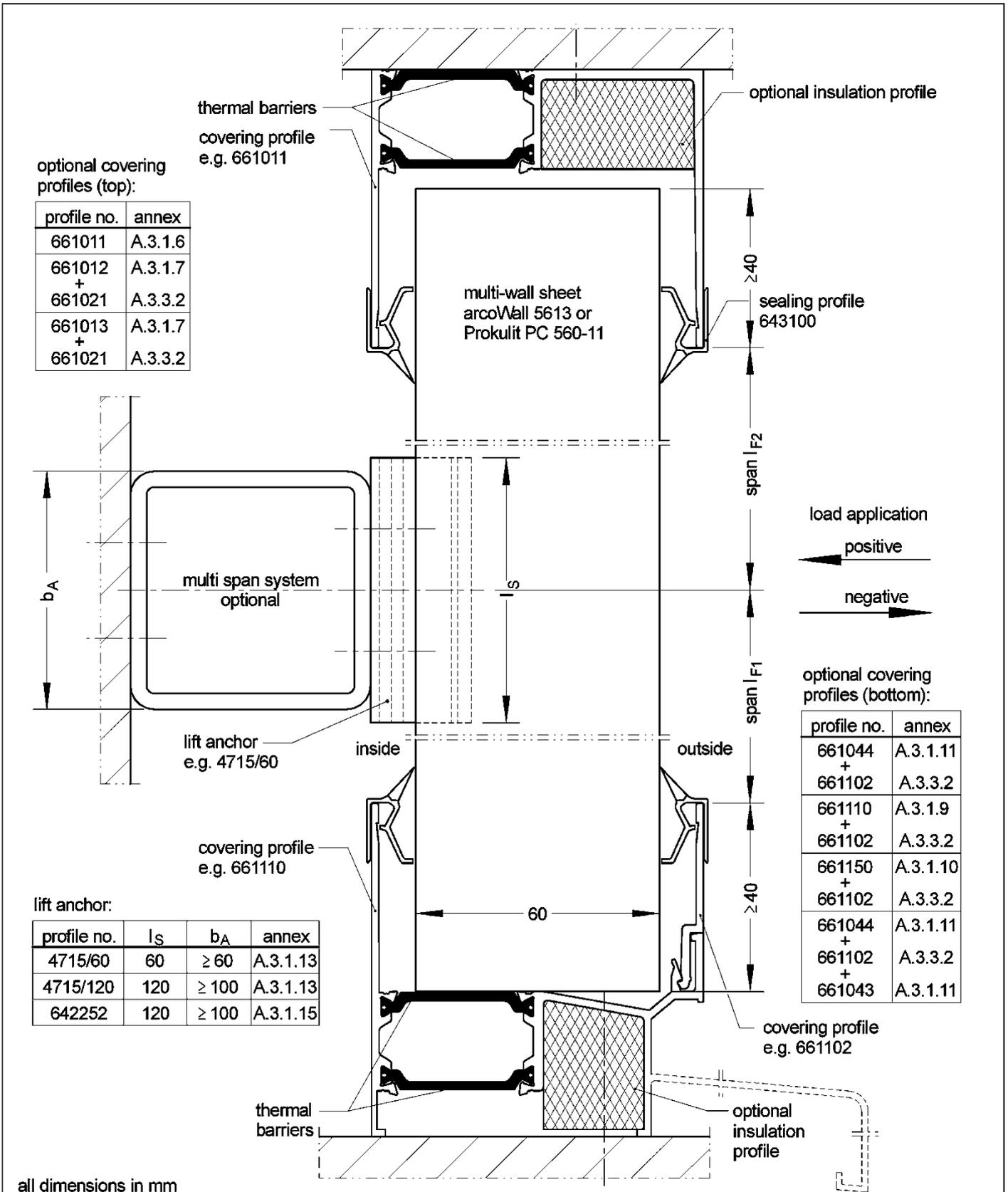
Annex A 2.1.5



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example curtain wall installation without thermal barriers
for: "arcoWall 5613" or "Prokulit PC 560-11"

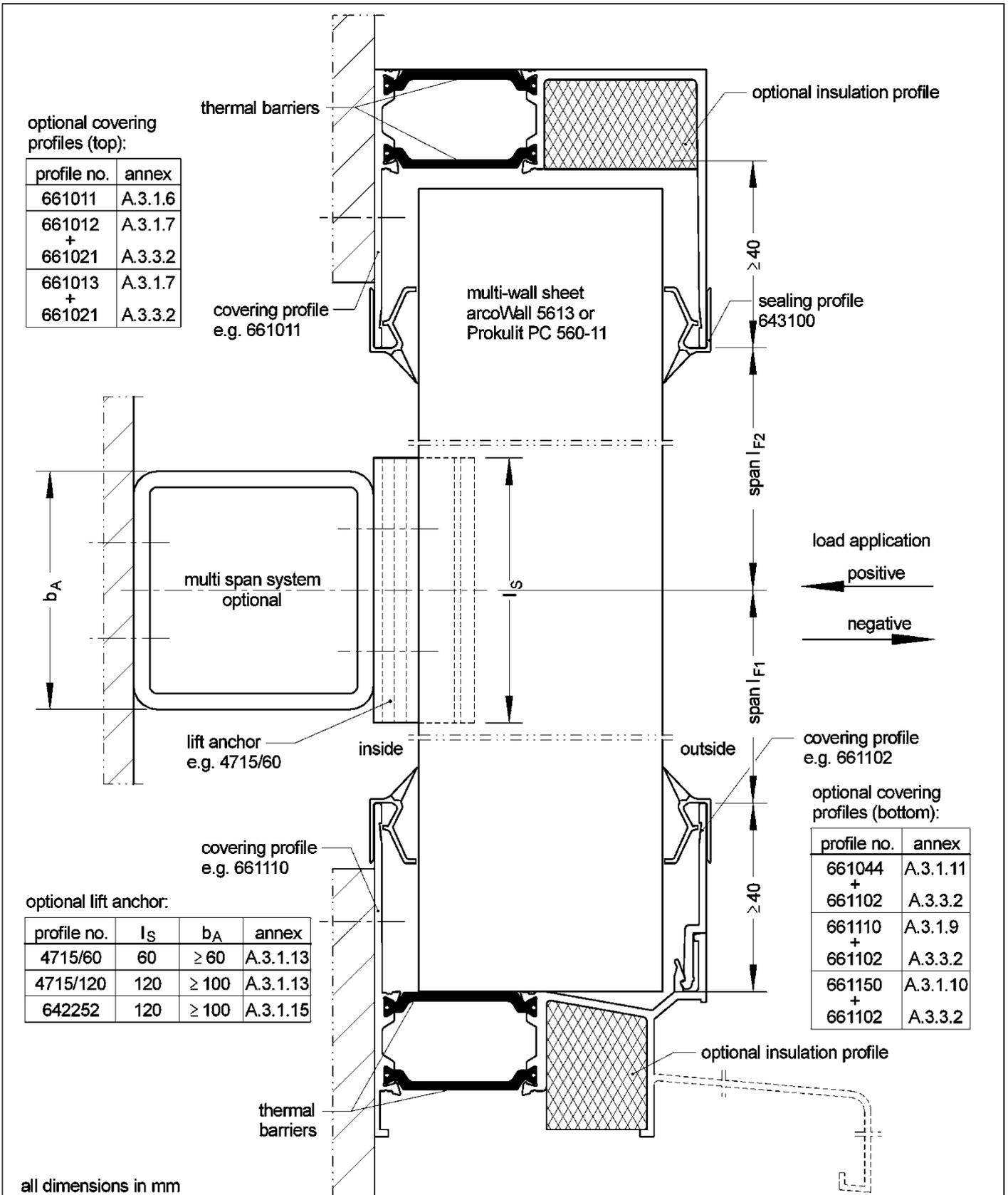
Annex A 2.1.6



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall installation
Example for assembly in reveal with thermal barriers
for: "arcoWall 5613" or "Prokulit PC 560-11"

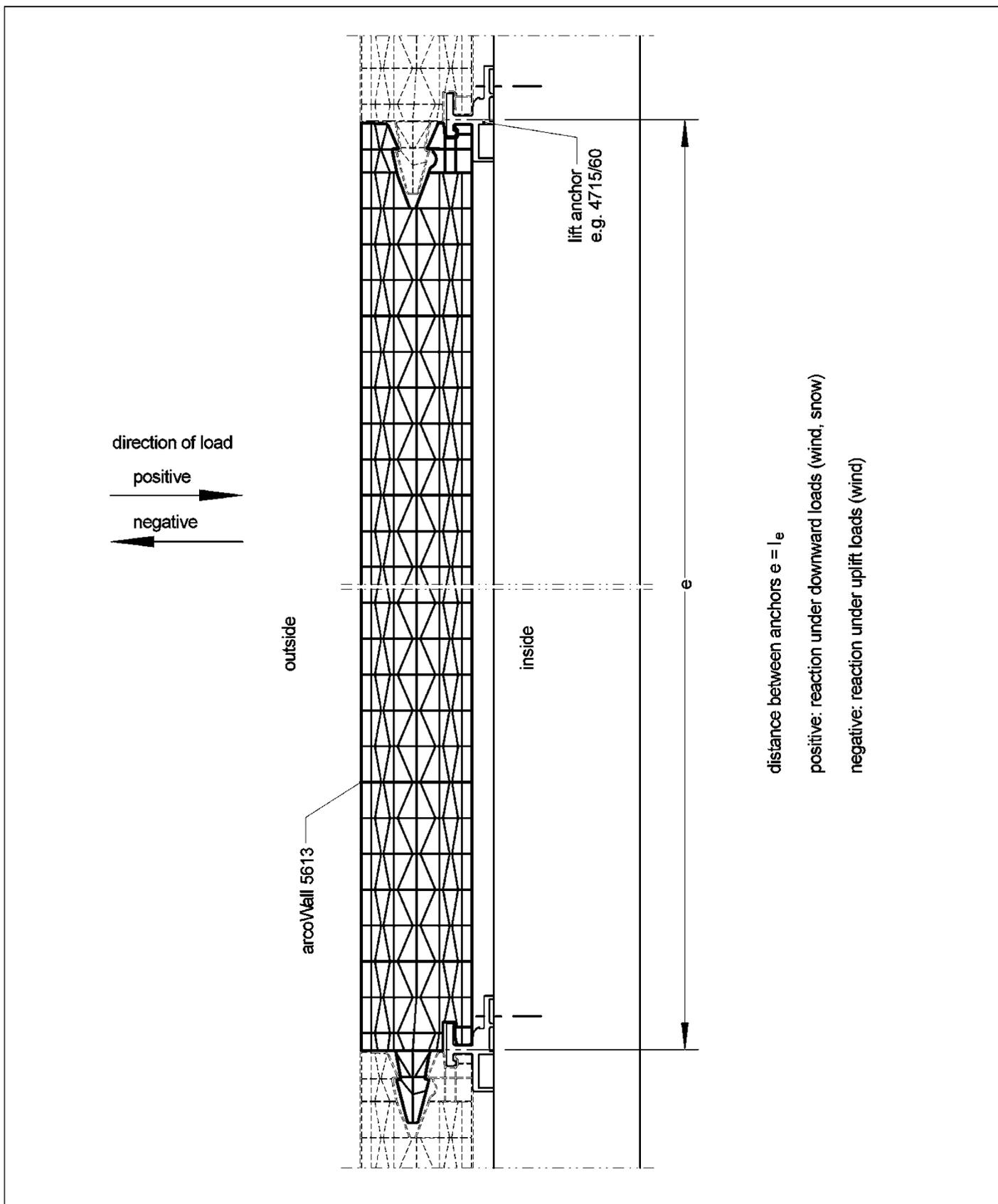
Annex A 2.1.7



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example curtain wall installation with thermal barriers
for: "arcoWall 5613" or "Prokulit PC 560-11"

Annex A 2.1.8

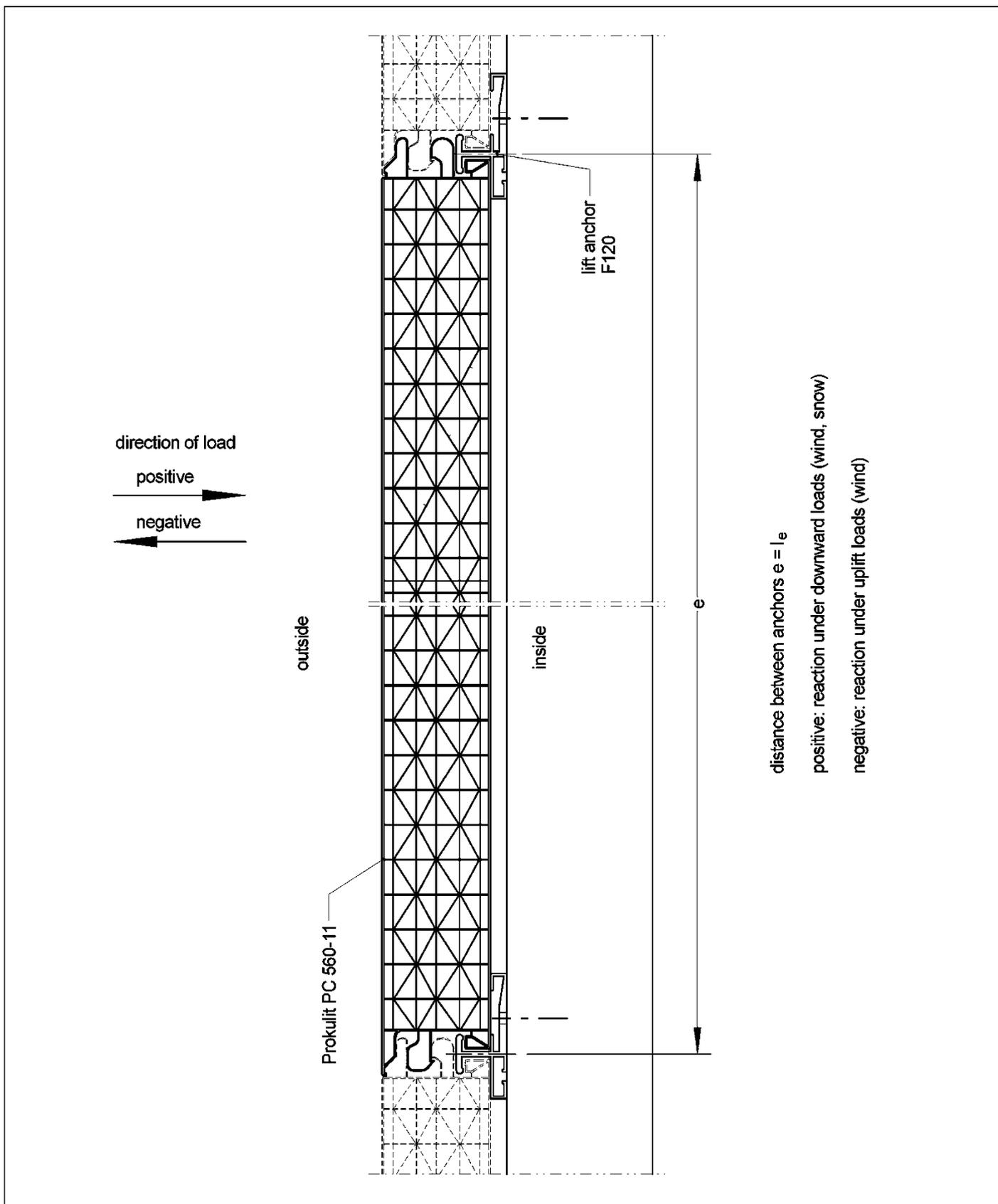


distance between anchors $e = l_e$
 positive: reaction under downward loads (wind, snow)
 negative: reaction under uplift loads (wind)

arcoPlus 547, arcoPlus 549, arcoWall 5613
 Prokulit PC 540-3, -PC 540-7, -PC 560-11

Multi-span system, assembly drawing, load direction
 for: "arcoWall 5613"

Annex A 2.1.9

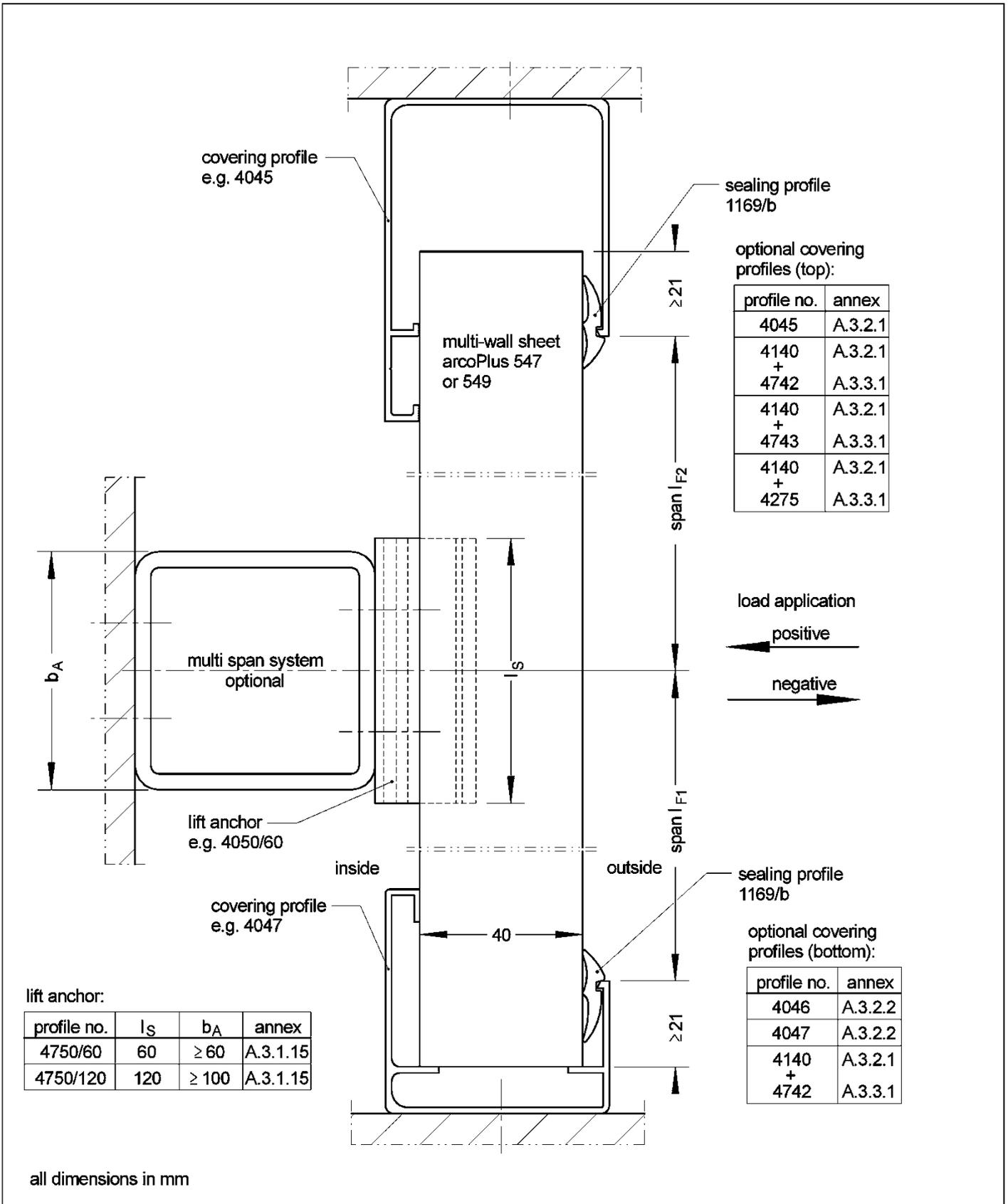


distance between anchors $e = l_e$
 positive: reaction under downward loads (wind, snow)
 negative: reaction under uplift loads (wind)

arcoPlus 547, arcoPlus 549, arcoWall 5613
 Prokulit PC 540-3, -PC 540-7, -PC 560-11

Multi-span system, assembly drawing, load direction
 for: "Prokulit PC 560-11"

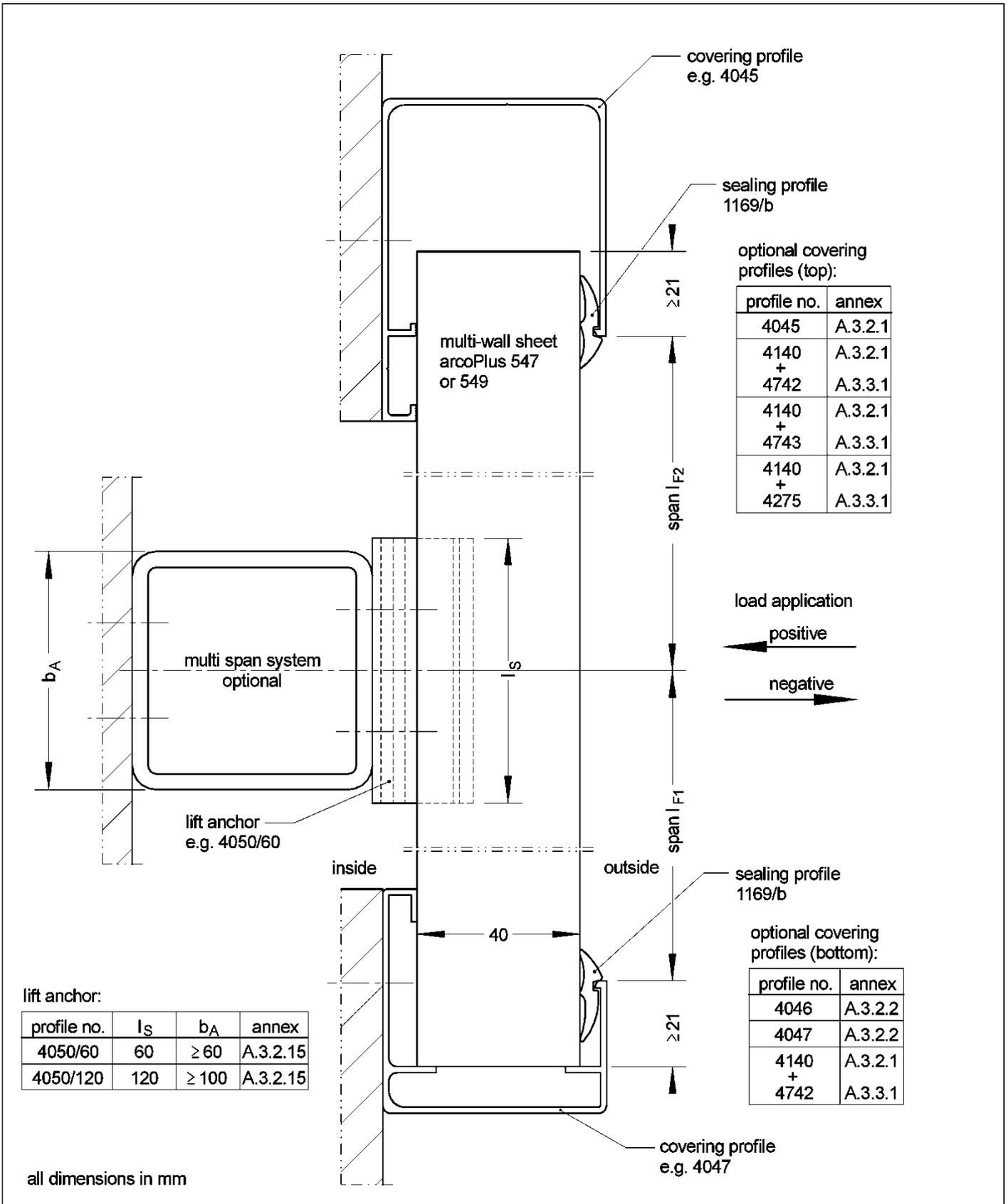
Annex A 2.1.10



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example for assembly in reveal without thermal barriers
for: "arcoPlus 547" or "arcoPlus 549"

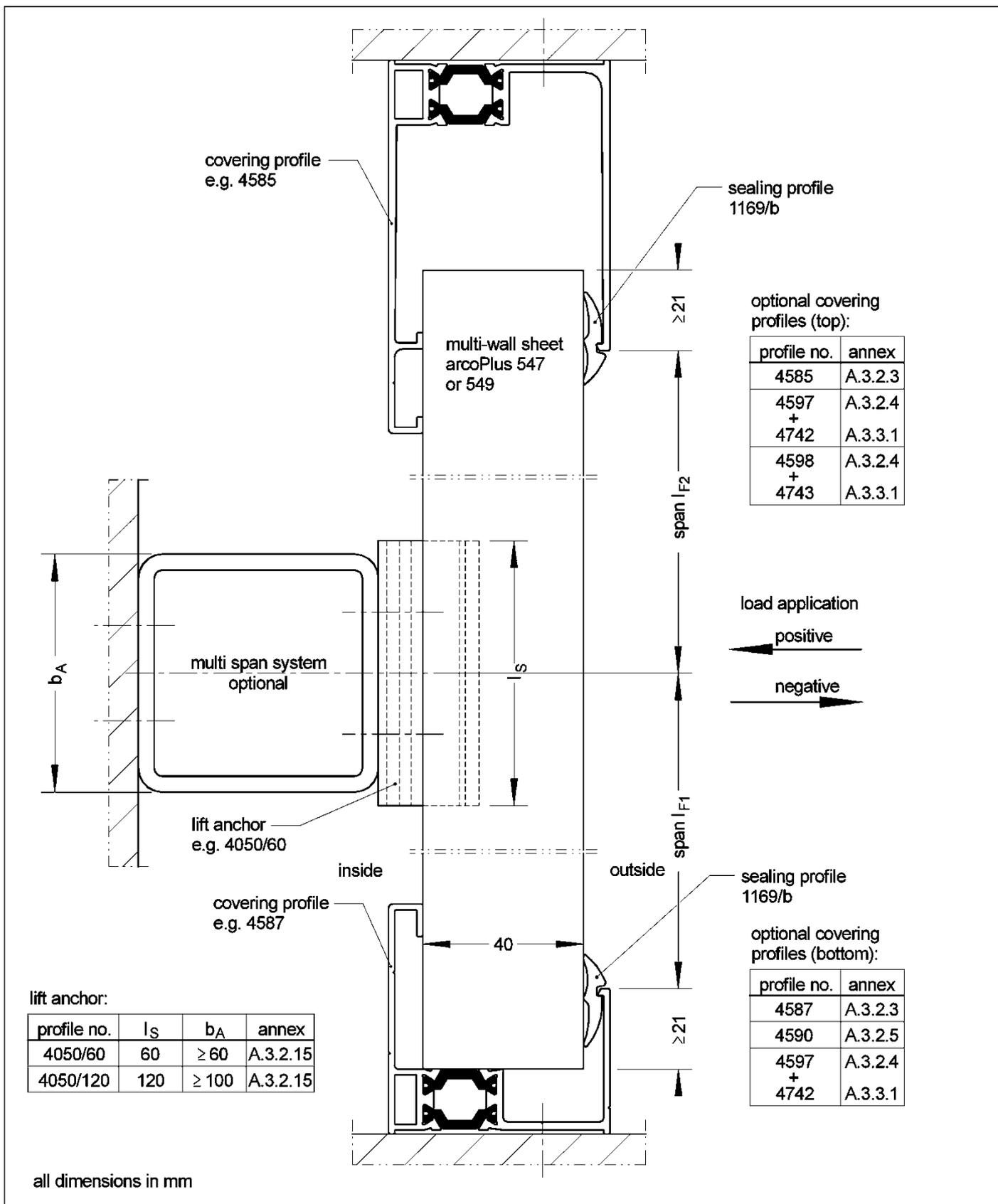
Annex A 2.2.1



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example curtain wall installation without thermal barriers
for: "arcoPlus 547" or "arcoPlus 549"

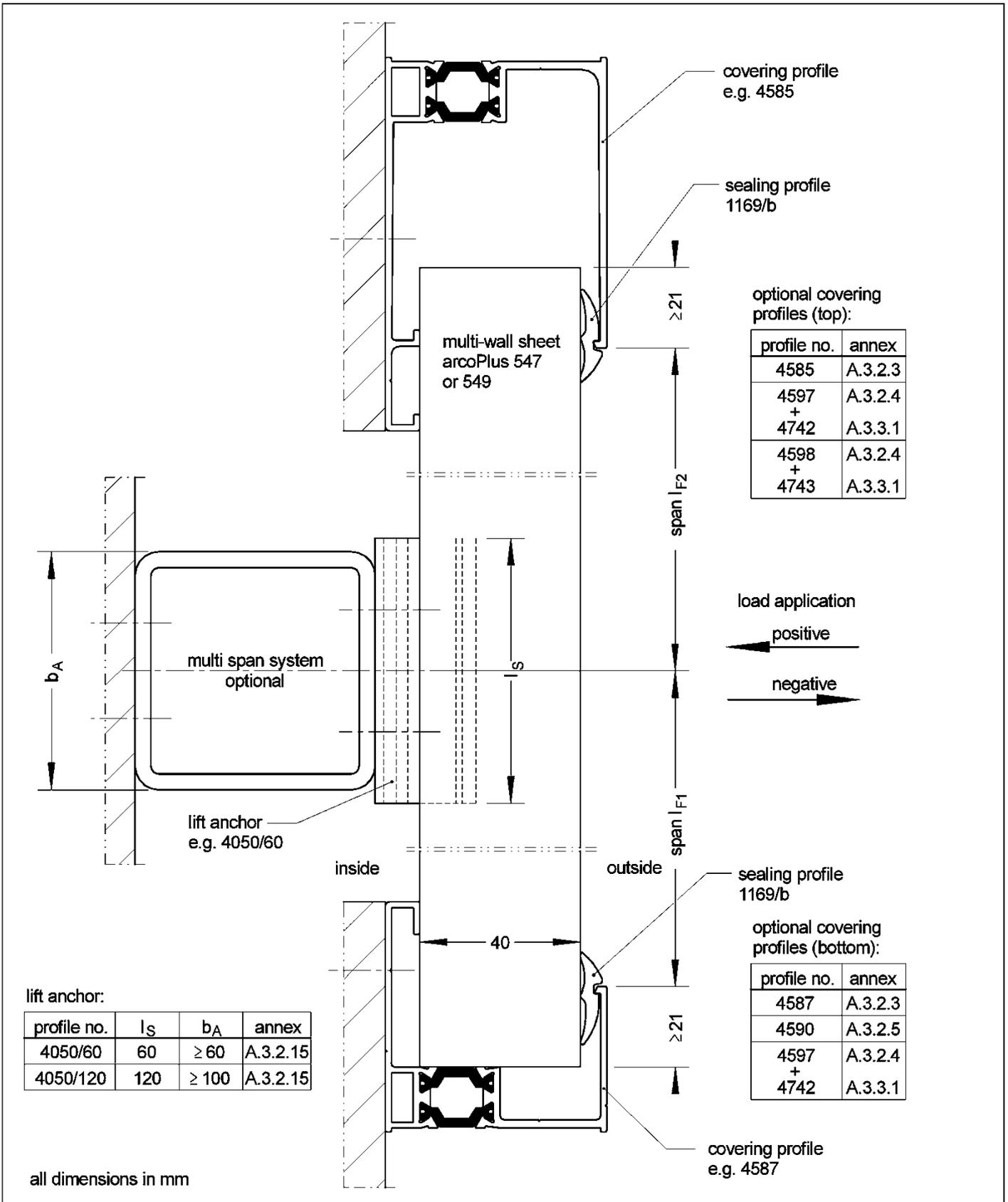
Annex A 2.2.2



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall installation
Example for assembly in reveal with thermal barriers
for: "arcoPlus 547" or "arcoPlus 549"

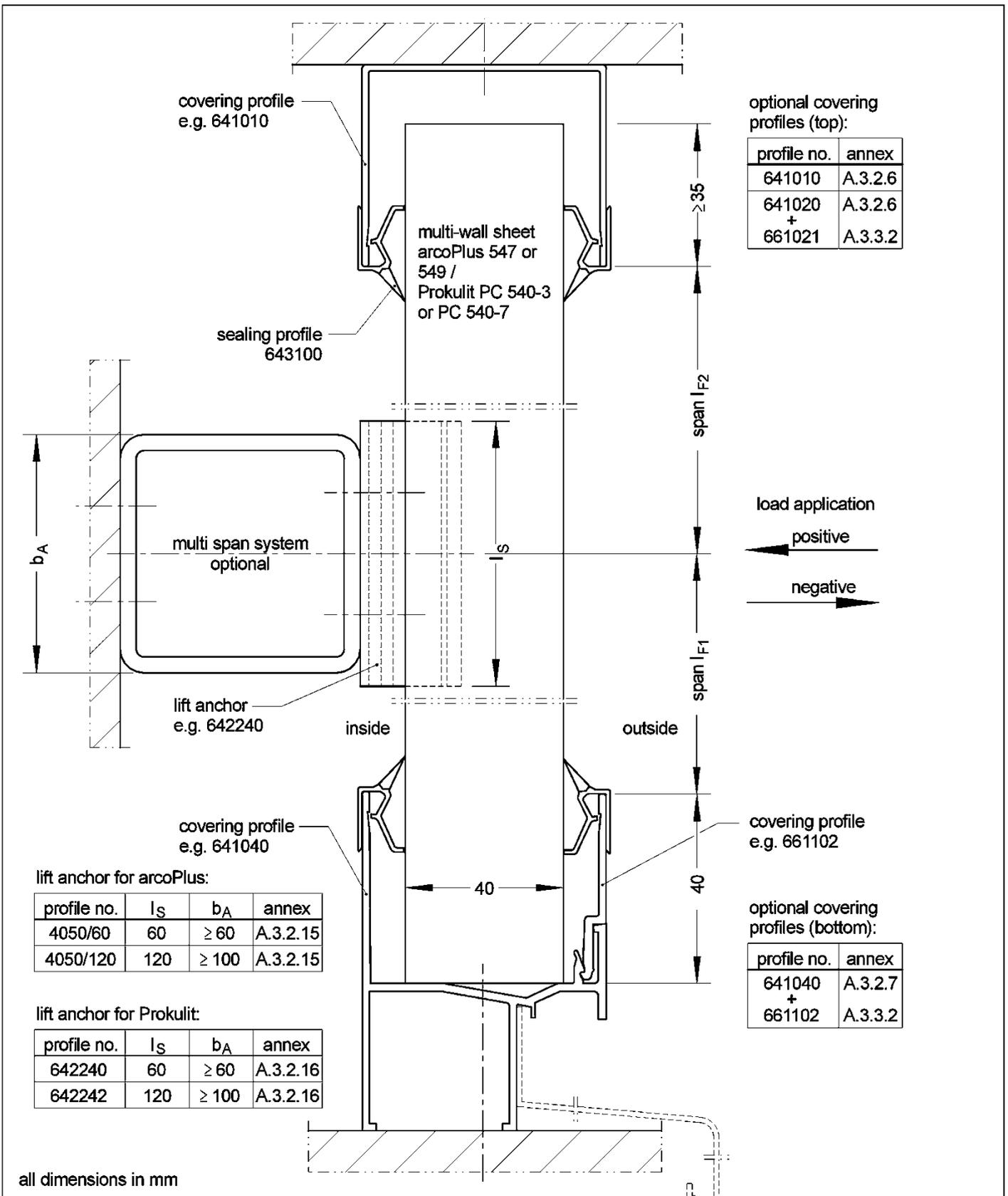
Annex A 2.2.3



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example curtain wall installation with thermal barriers
for: "arcoPlus 547" or "arcoPlus 549"

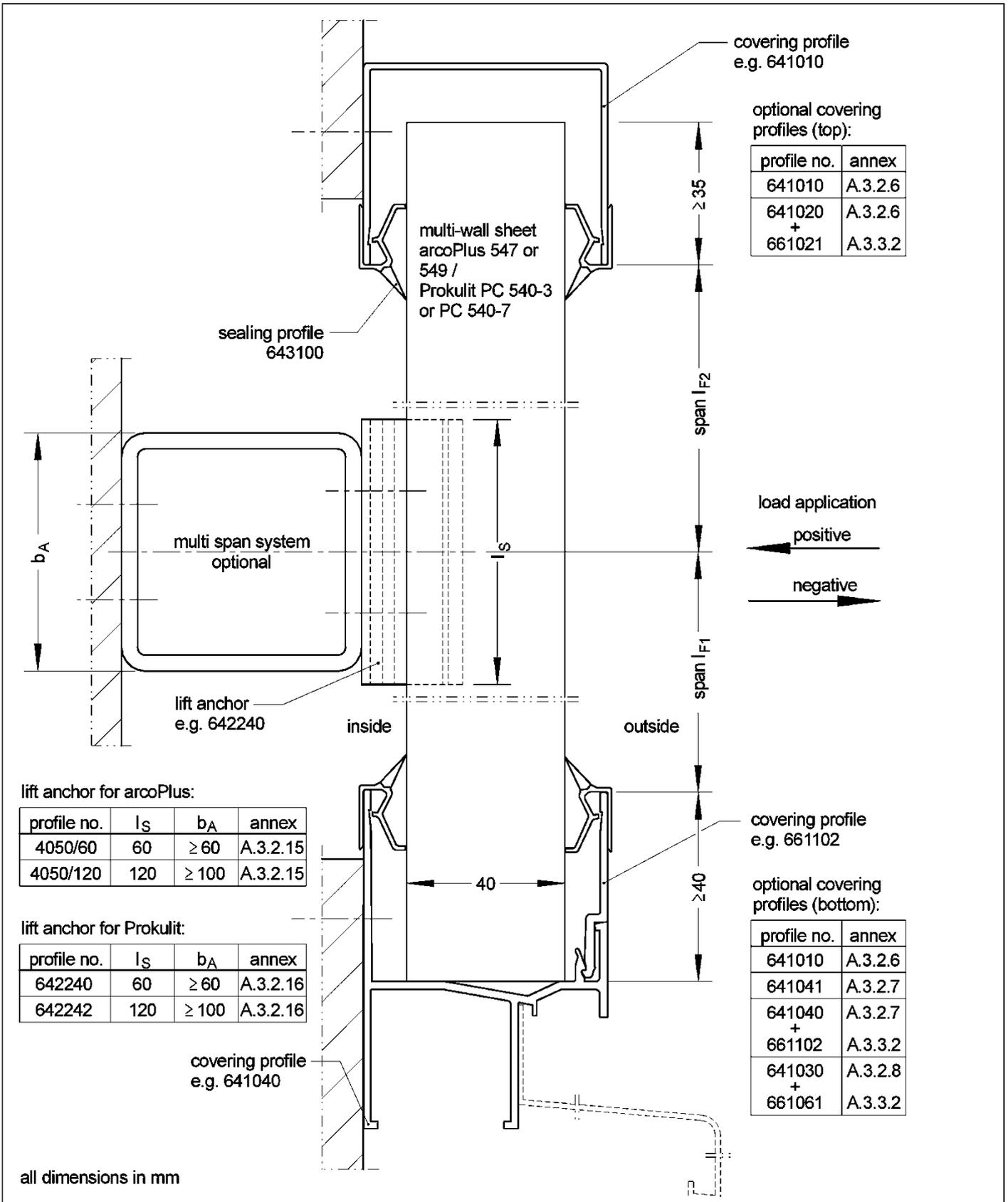
Annex A 2.2.4



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example for assembly in reveal without thermal barriers
for: "arcoPlus 547" or "arcoPlus 549"/ "Prokulit PC 540-3" or "Prokulit PC 540-7"

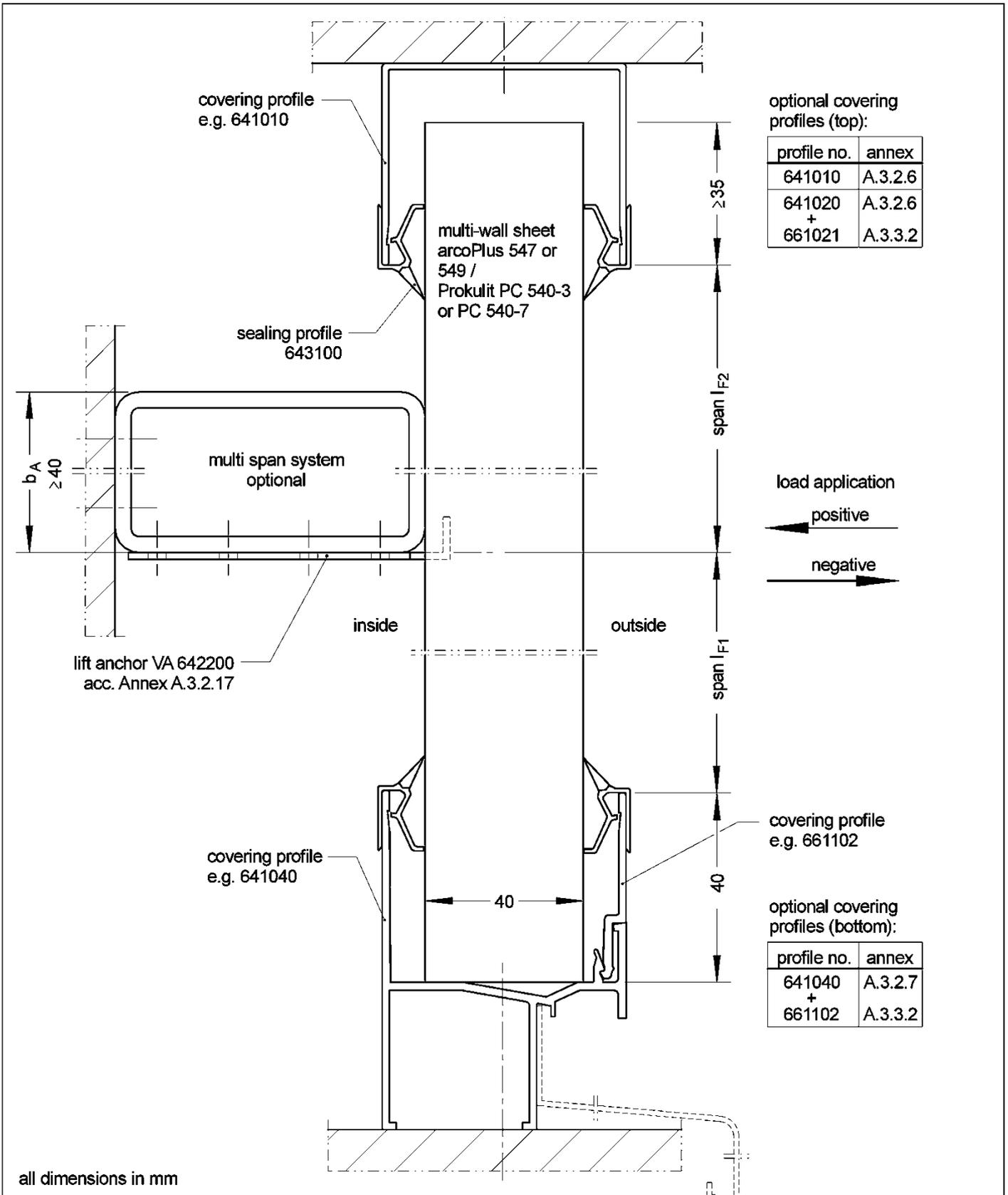
Annex A 2.2.5



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example curtain wall installation without thermal barriers
for: "arcoPlus 547" or "arcoPlus 549"/ "Prokulit PC 540-3" or "Prokulit PC 540-7"

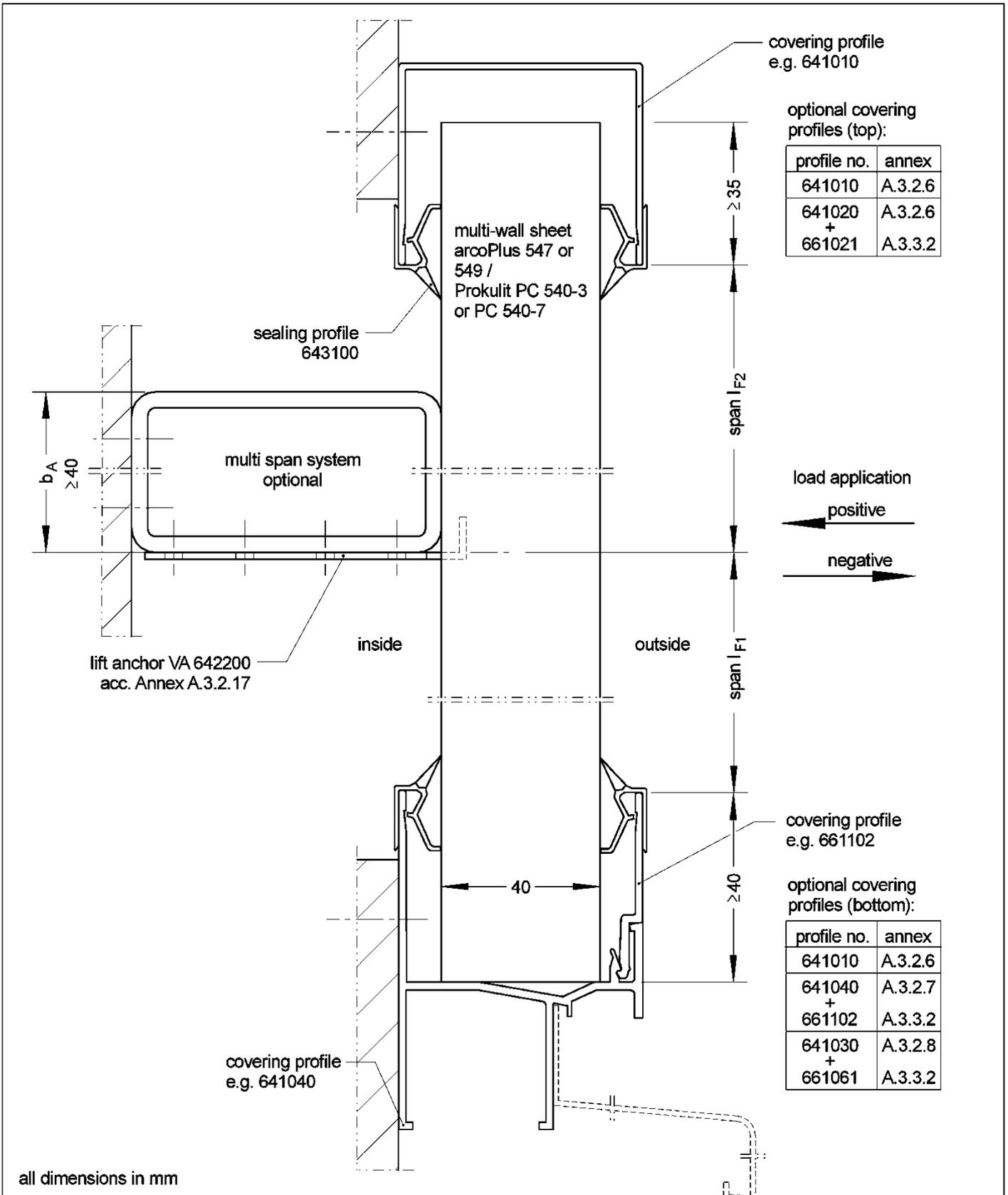
Annex A 2.2.6



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example for assembly in reveal without thermal barriers
for: "arcoPlus 547" or "arcoPlus 549"/ "Prokulit PC 540-3" or "Prokulit PC 540-7"

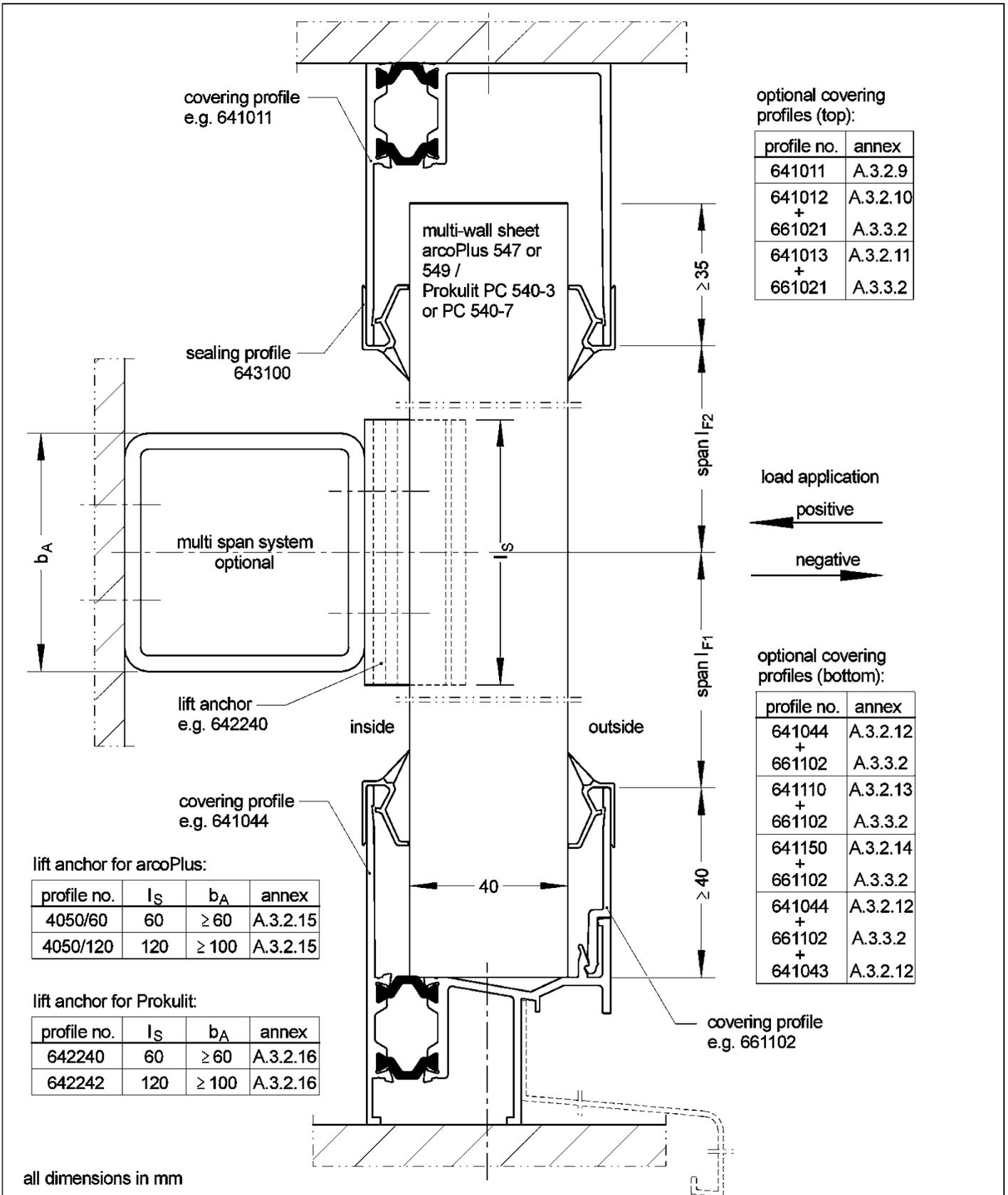
Annex A 2.2.7



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example curtain wall installation without thermal barriers
for: "arcoPlus 547" or "arcoPlus 549"/ "Prokulit PC 540-3" or "Prokulit PC 540-7"

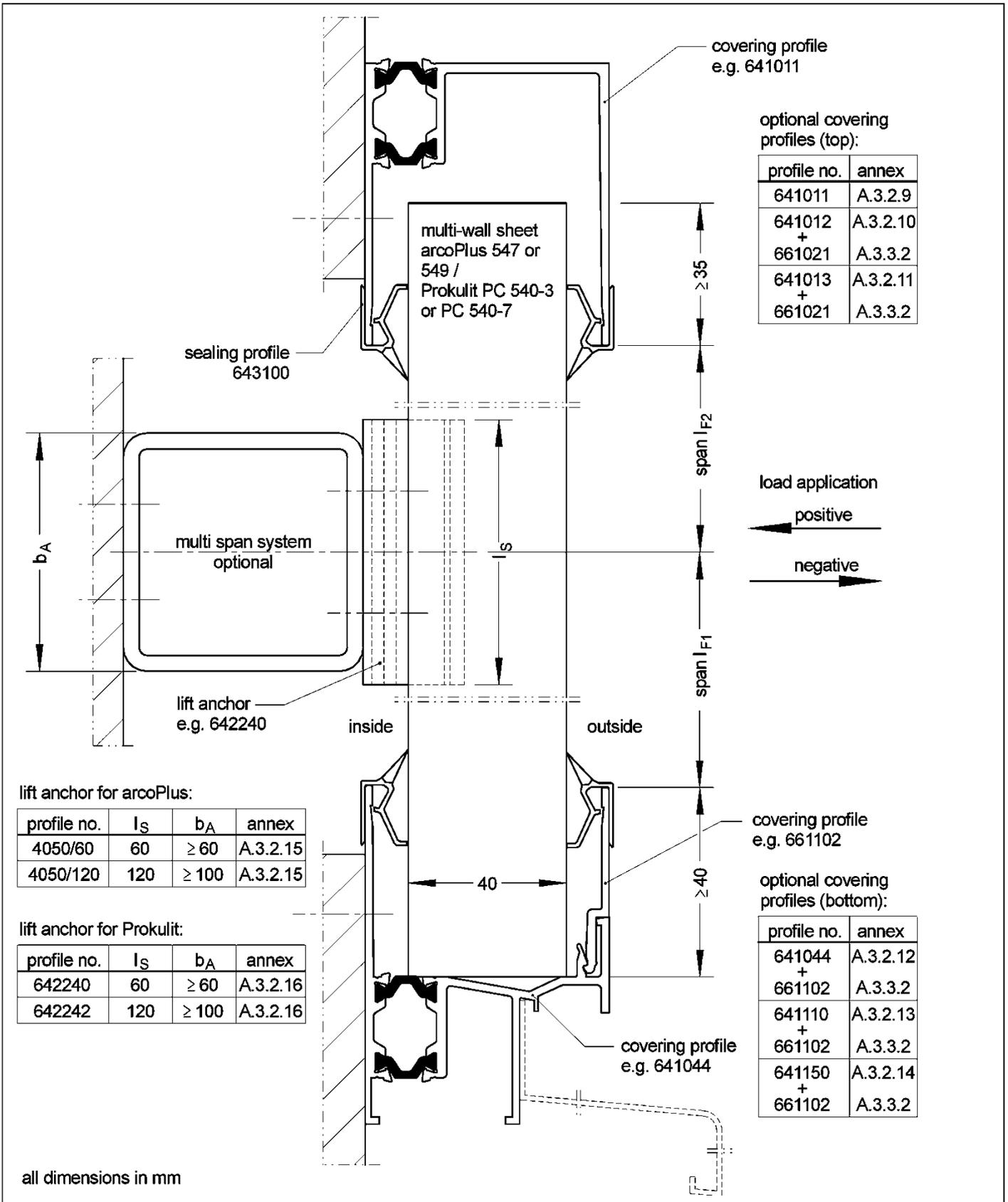
Annex A 2.2.8



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall installation
Example for assembly in reveal with thermal barriers
for: "arcoPlus 547" or "arcoPlus 549"/ "Prokulit PC 540-3" or "Prokulit PC 540-7"

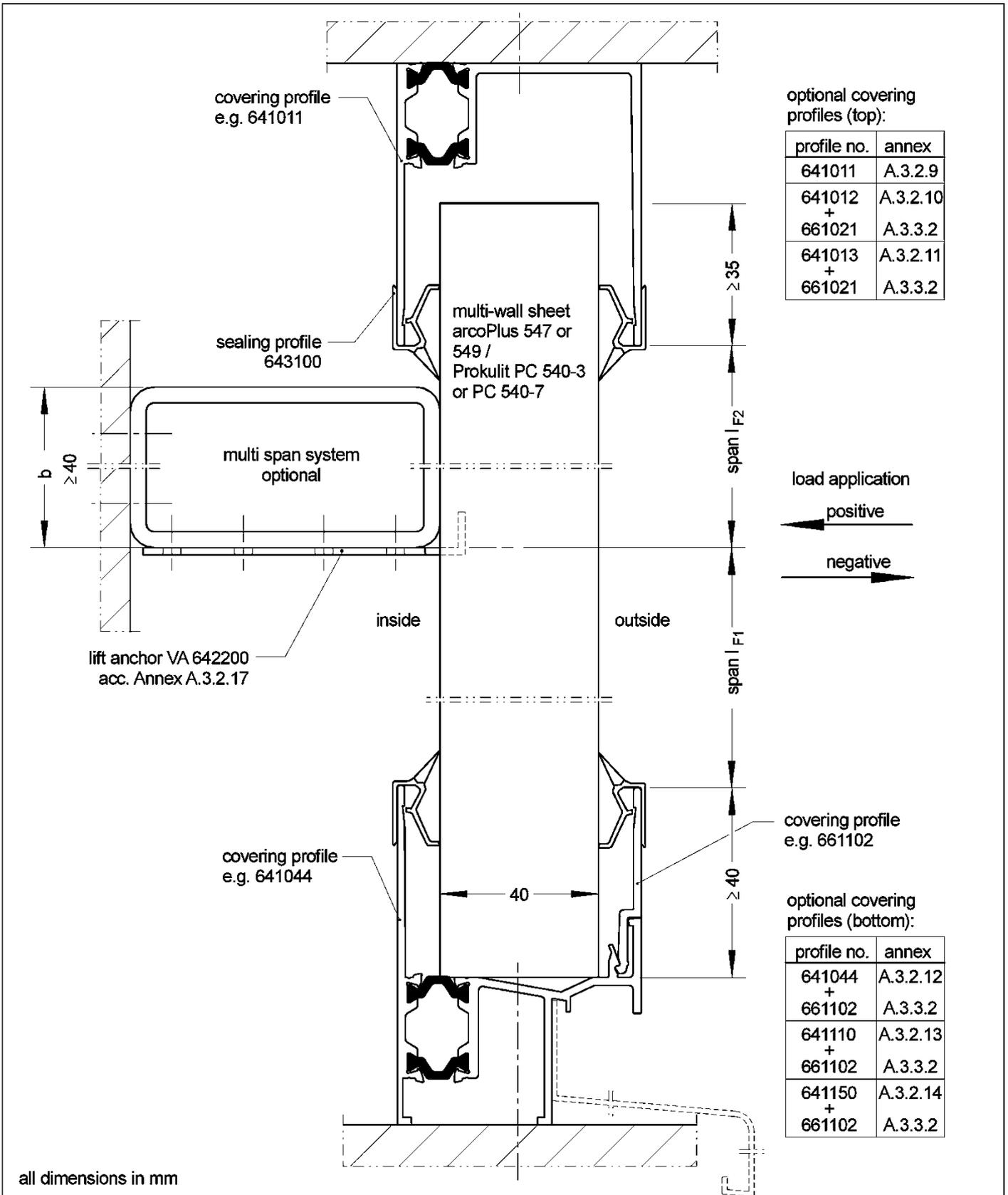
Annex A 2.2.9



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example curtain wall installation with thermal barriers
for: "arcoPlus 547" or "arcoPlus 549"/ "Prokulit PC 540-3" or "Prokulit PC 540-7"

Annex A 2.2.10



optional covering profiles (top):

profile no.	annex
641011	A.3.2.9
641012 + 661021	A.3.2.10 A.3.3.2
641013 + 661021	A.3.2.11 A.3.3.2

load application
 positive ←
 negative →

optional covering profiles (bottom):

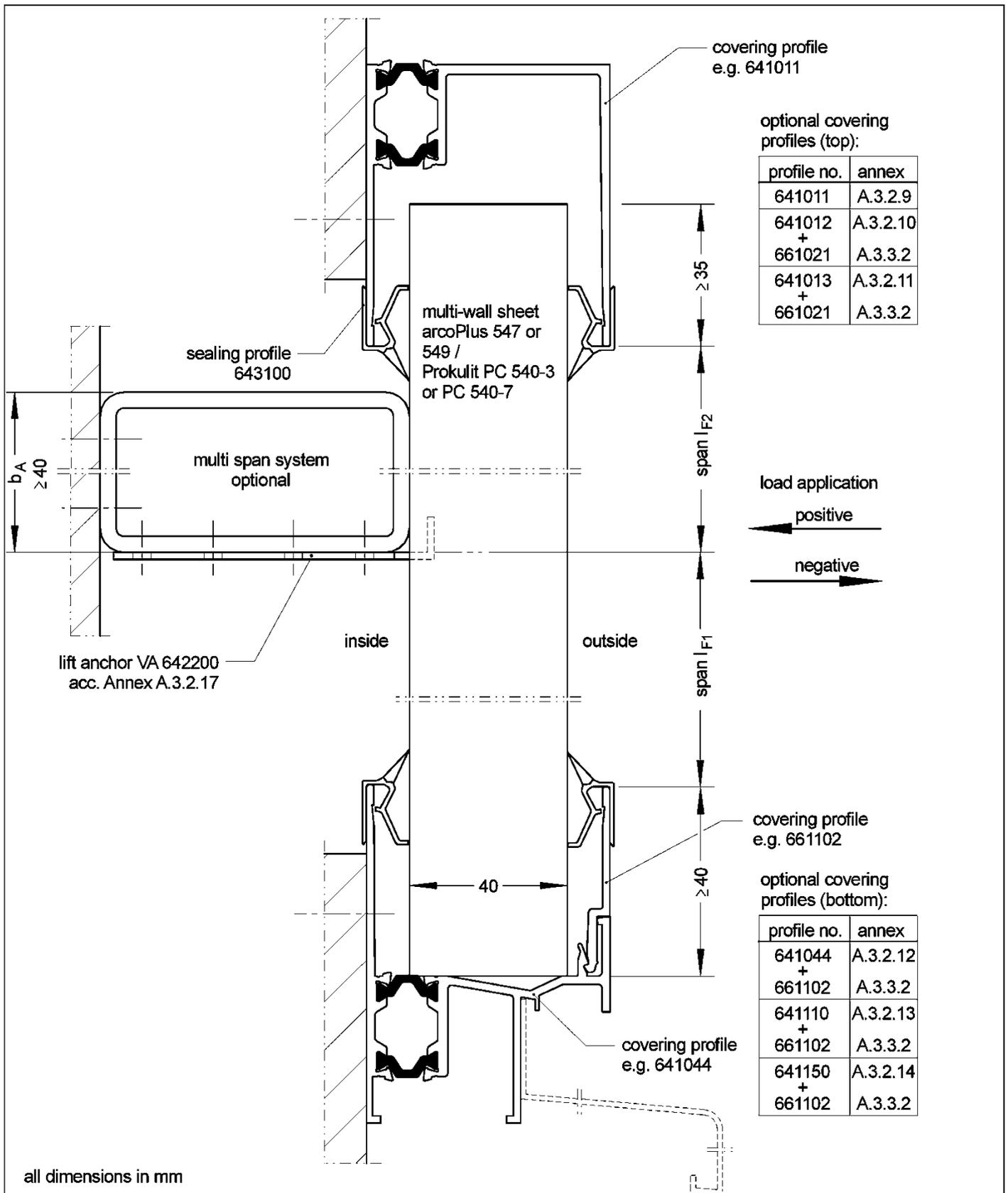
profile no.	annex
641044 + 661102	A.3.2.12 A.3.3.2
641110 + 661102	A.3.2.13 A.3.3.2
641150 + 661102	A.3.2.14 A.3.3.2

all dimensions in mm

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall installation
 Example for assembly in reveal with thermal barriers
 for: "arcoPlus 547" or "arcoPlus 549"/ "Prokulit PC 540-3" or "Prokulit PC 540-7"

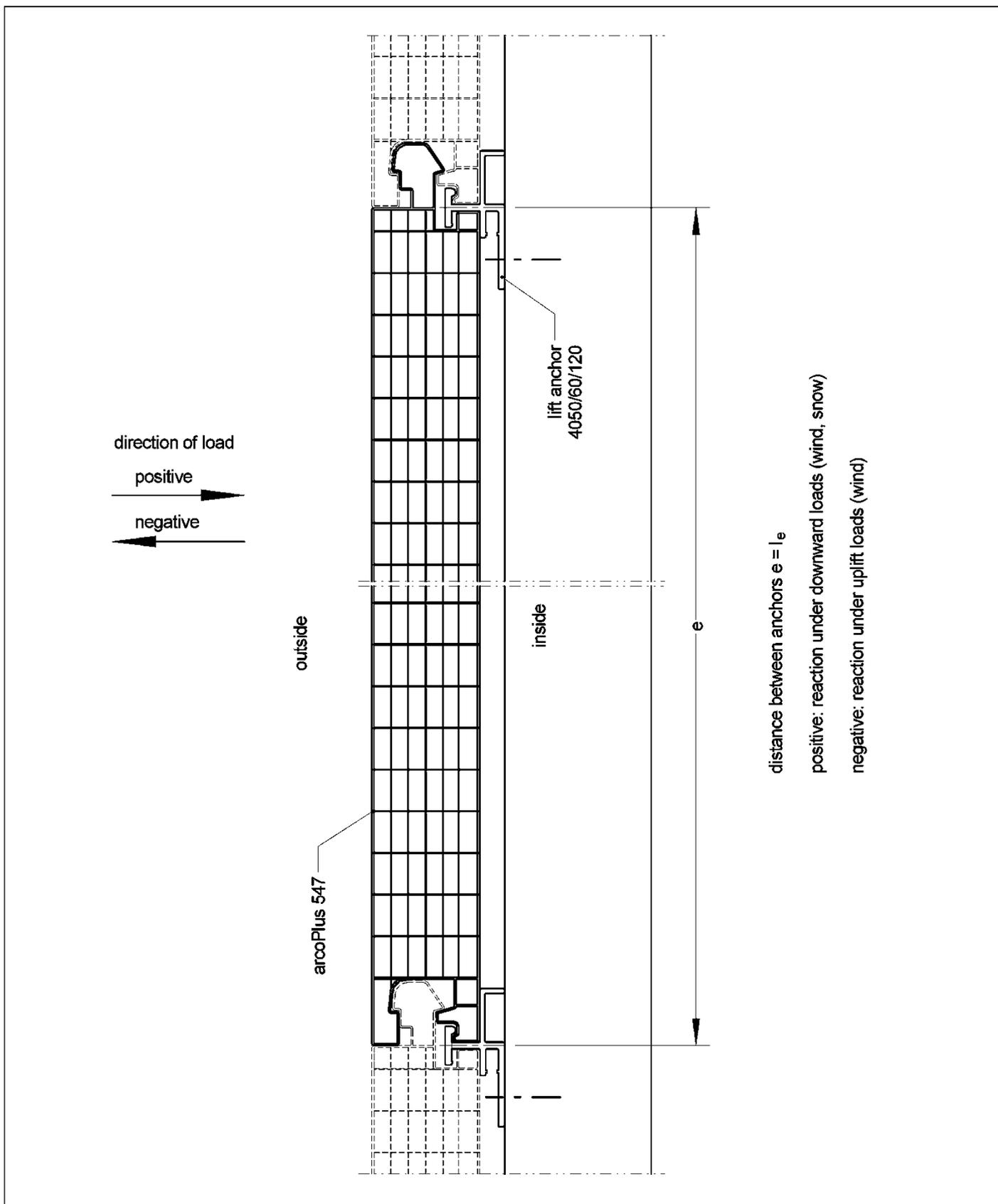
Annex A 2.2.11



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Support condition wall and roof installation
Example curtain wall installation with thermal barriers
for: "arcoPlus 547" or "arcoPlus 549"/ "Prokulit PC 540-3" or "Prokulit PC 540-7"

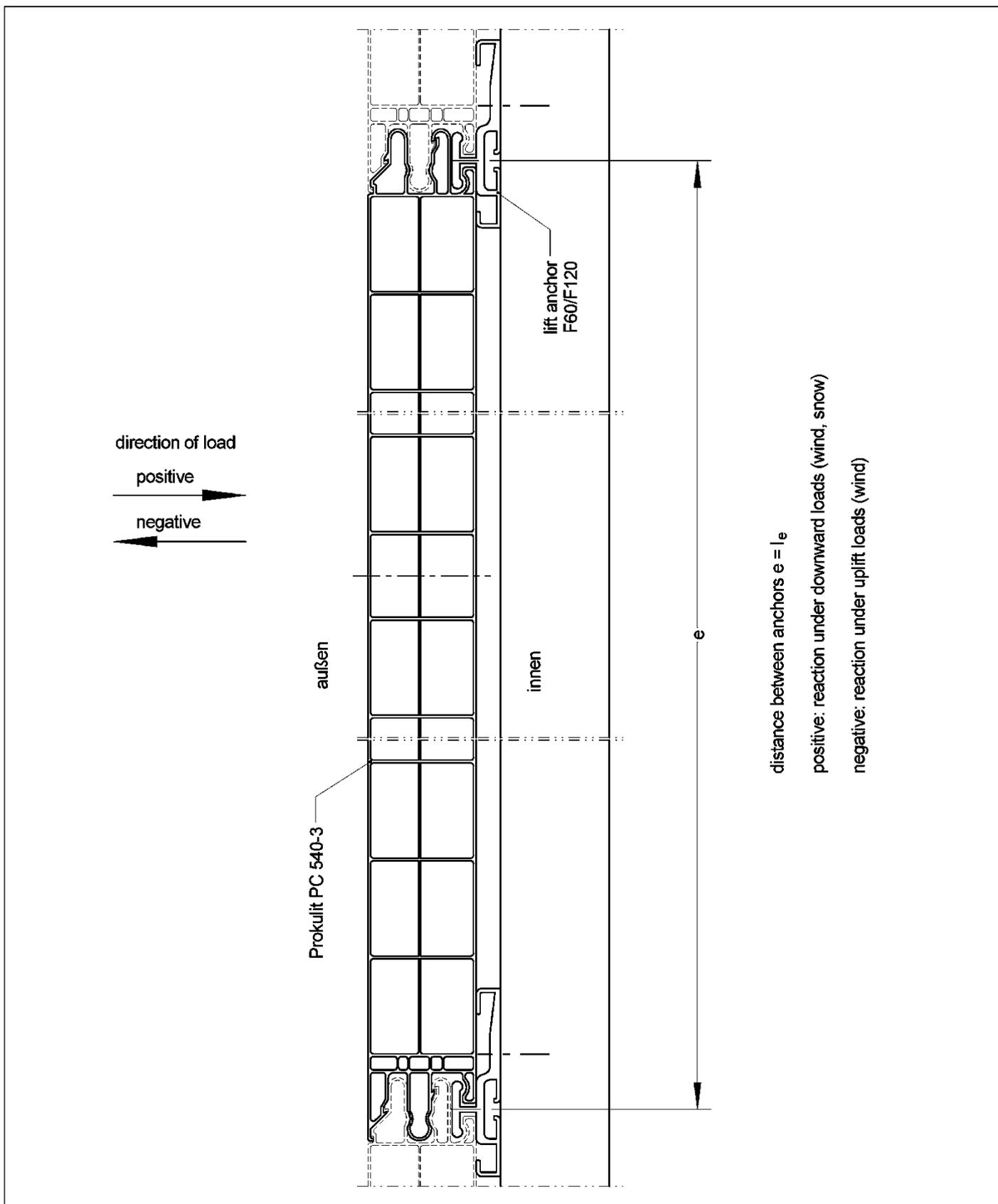
Annex A 2.2.12



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Multi-span system, assembly drawing, load direction
for: "arcoPlus 547"

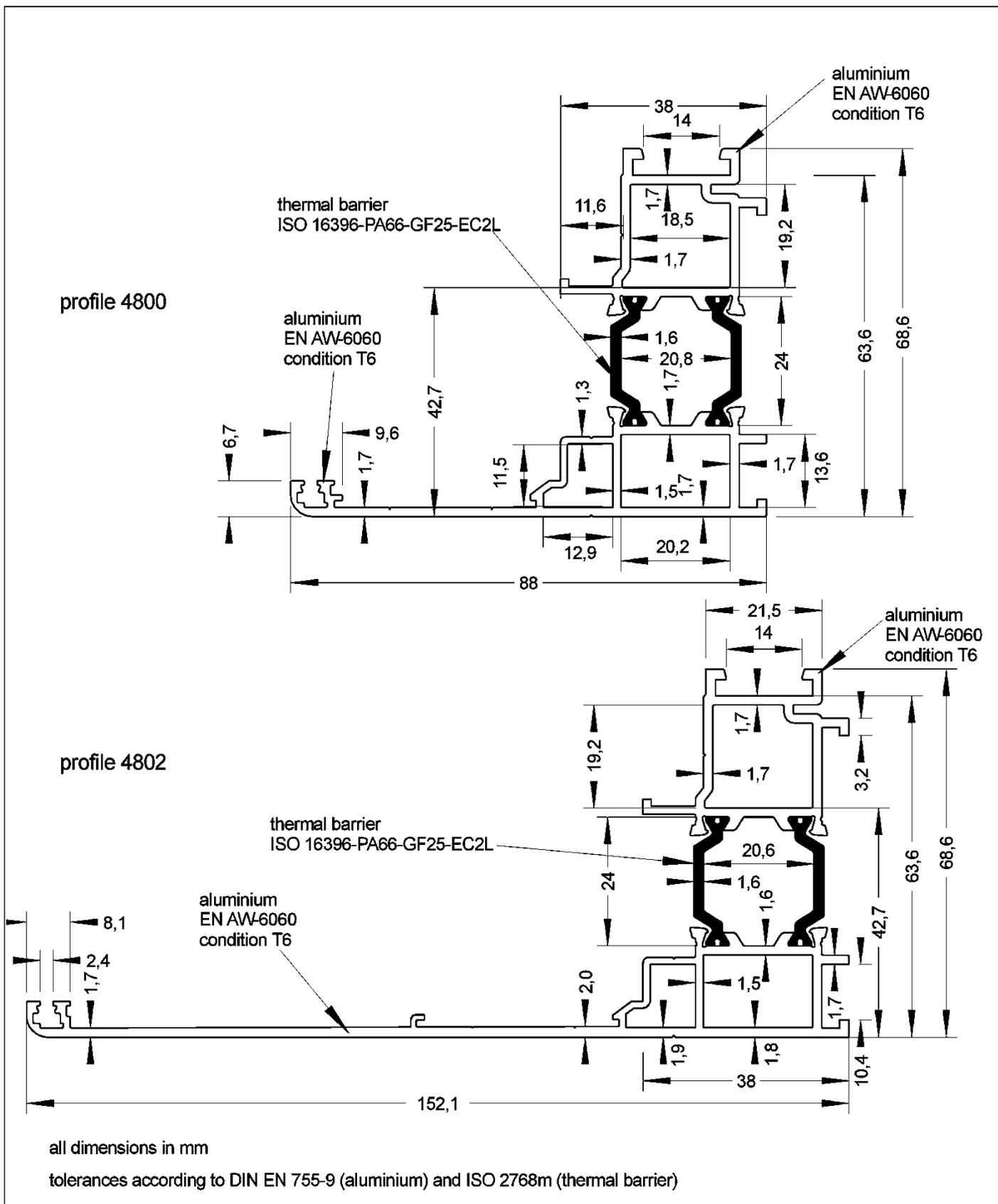
Annex A 2.2.13



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

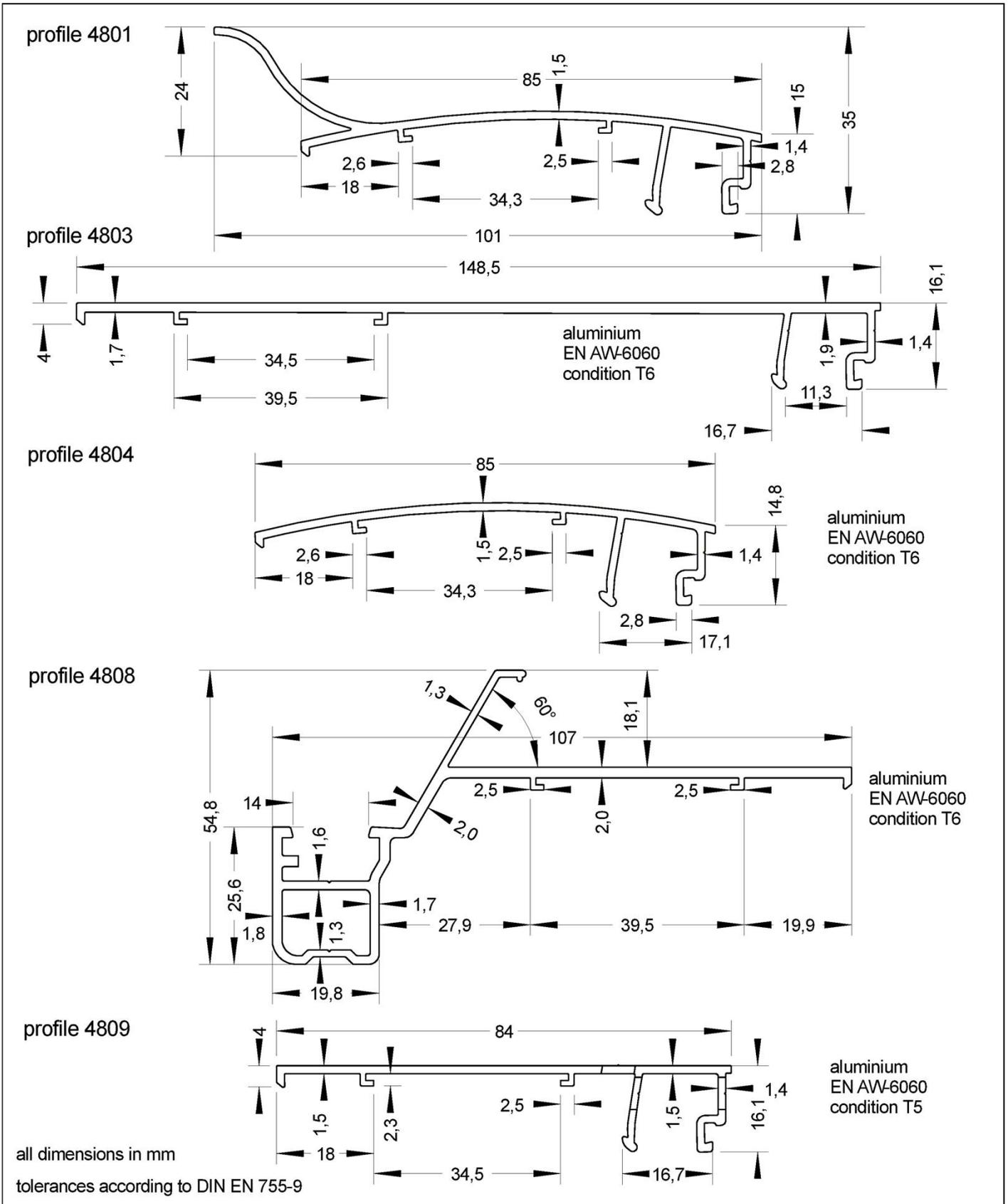
Multi-span system, assembly drawing, load direction
for: "Prokulit PC 540-3"

Annex A 2.2.14



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11
Frame profiles with thermal barrier 4800 and 4802

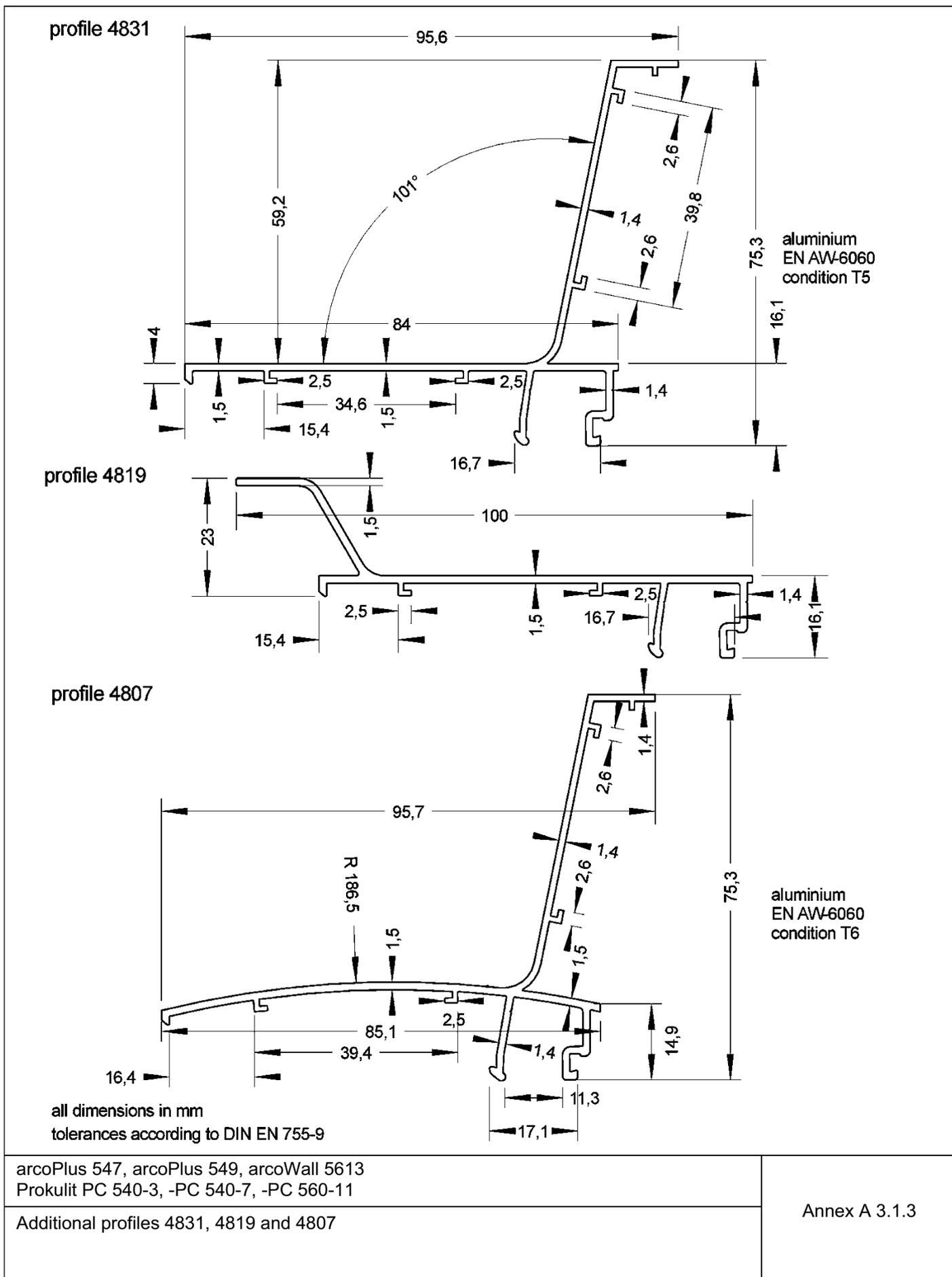
Annex A 3.1.1



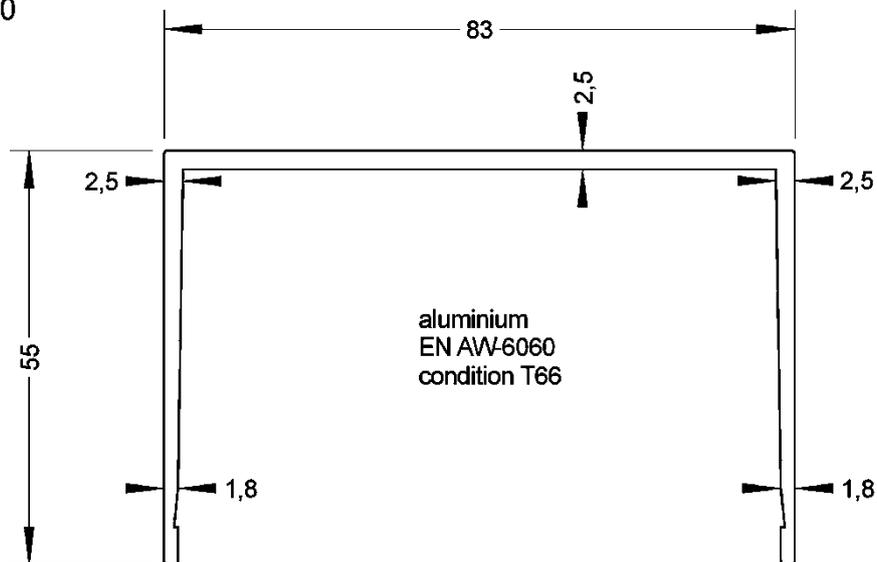
arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Additional profiles 4801, 4803, 4804, 4808 and 4809

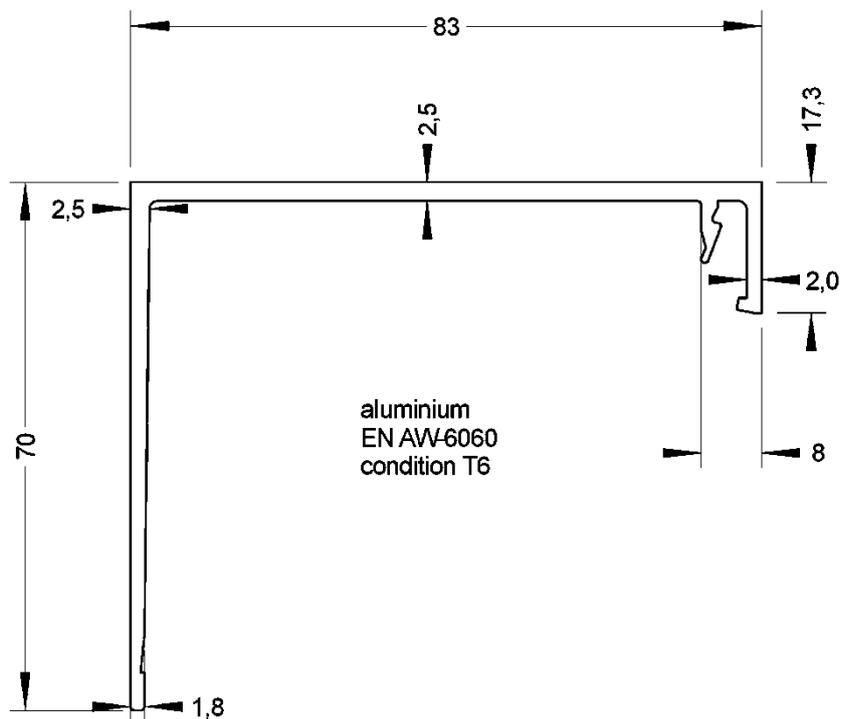
Annex A 3.1.2



profile 661010



profile 661020



all dimensions in mm

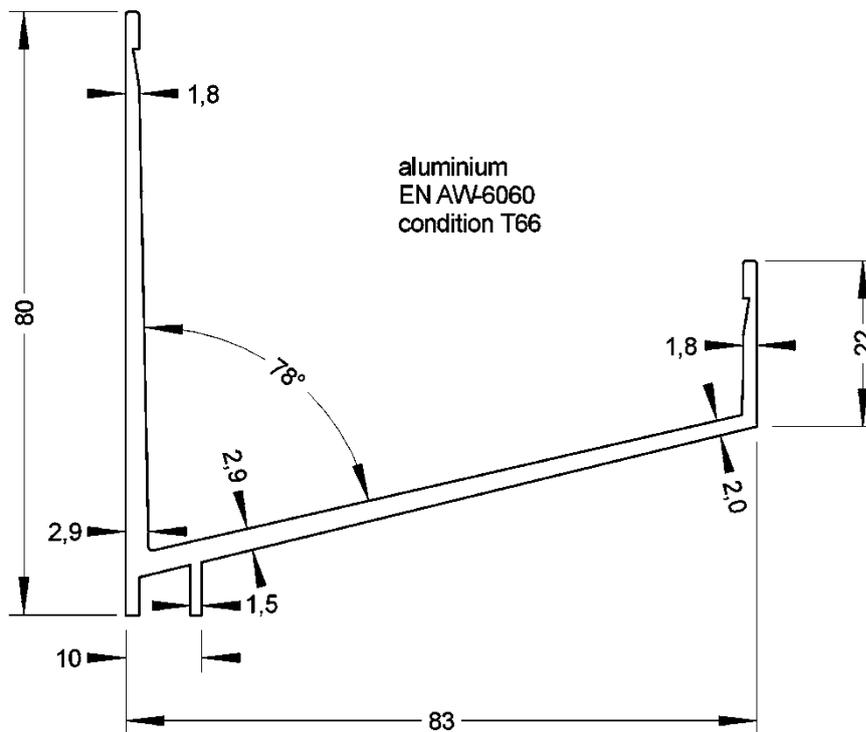
tolerances according to DIN EN 755-9

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

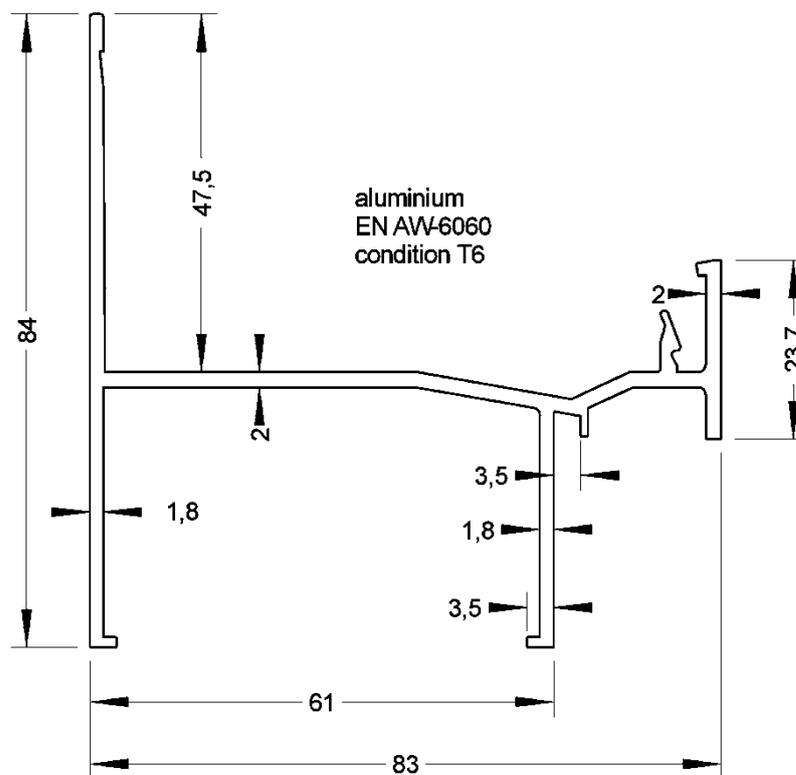
Frame profiles 661010 and 661020

Annex A 3.1.4

profile 661030



profile 661040



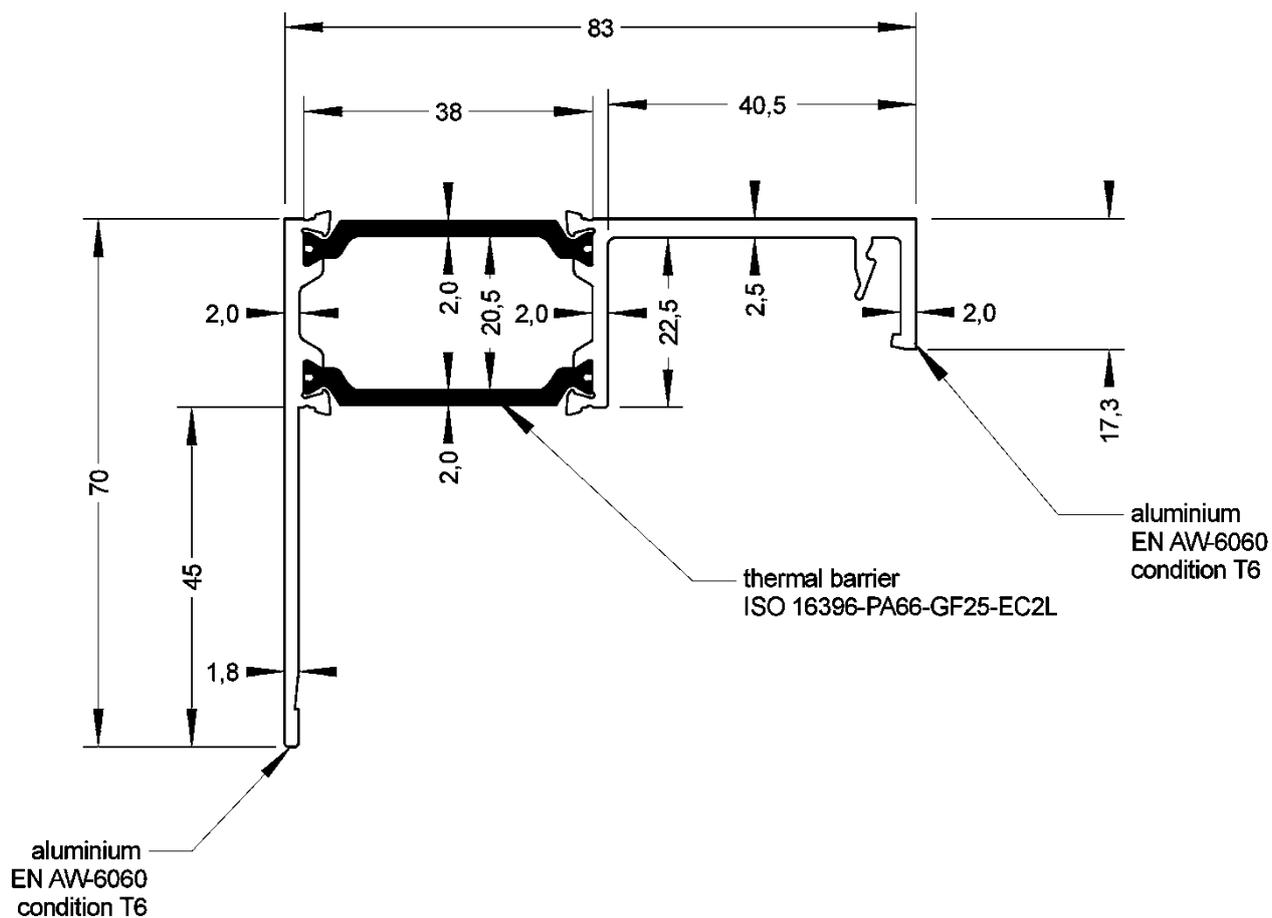
all dimensions in mm

tolerances according to
EN 755-9

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Base profiles 661030 and 661040

Annex A 3.1.5



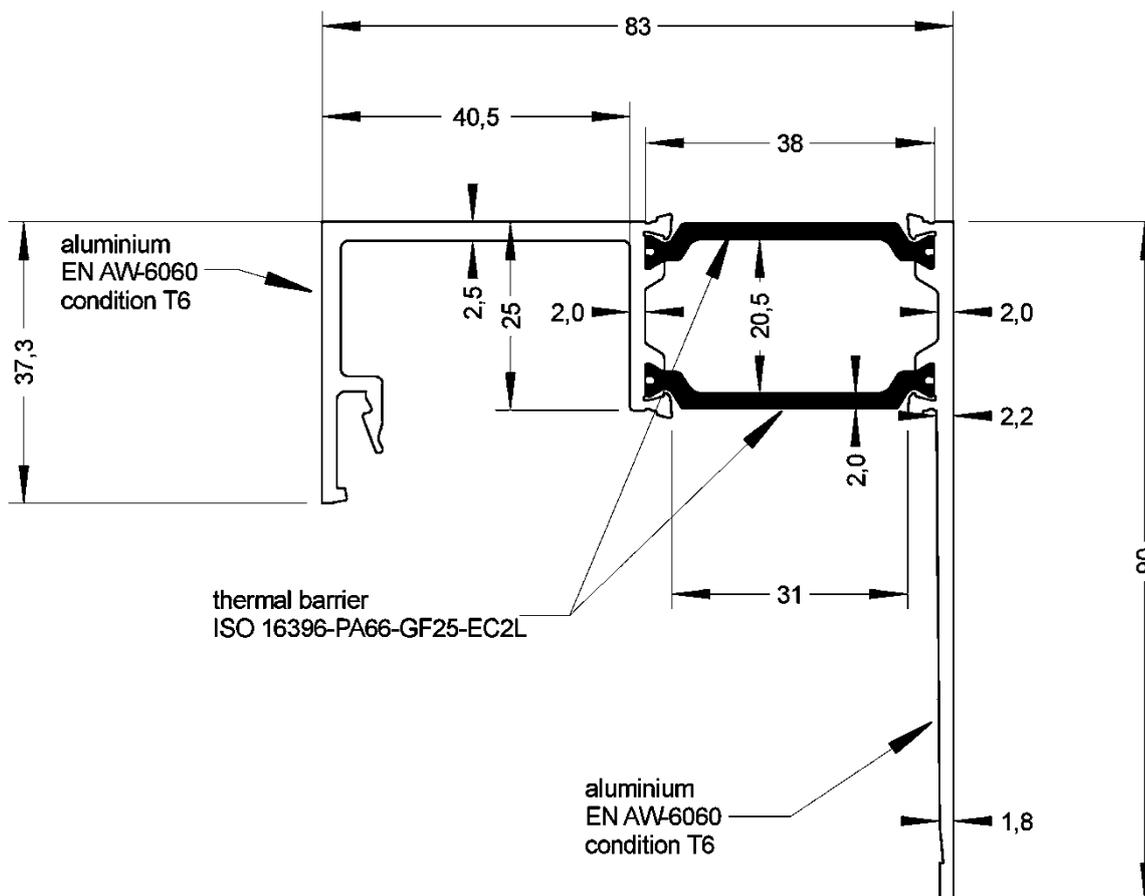
all dimensions in mm

tolerances according to DIN EN 755-9 (aluminium) and ISO 2768m (thermal barrier)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Frame profile with thermal barrier 661012

Annex A 3.1.7



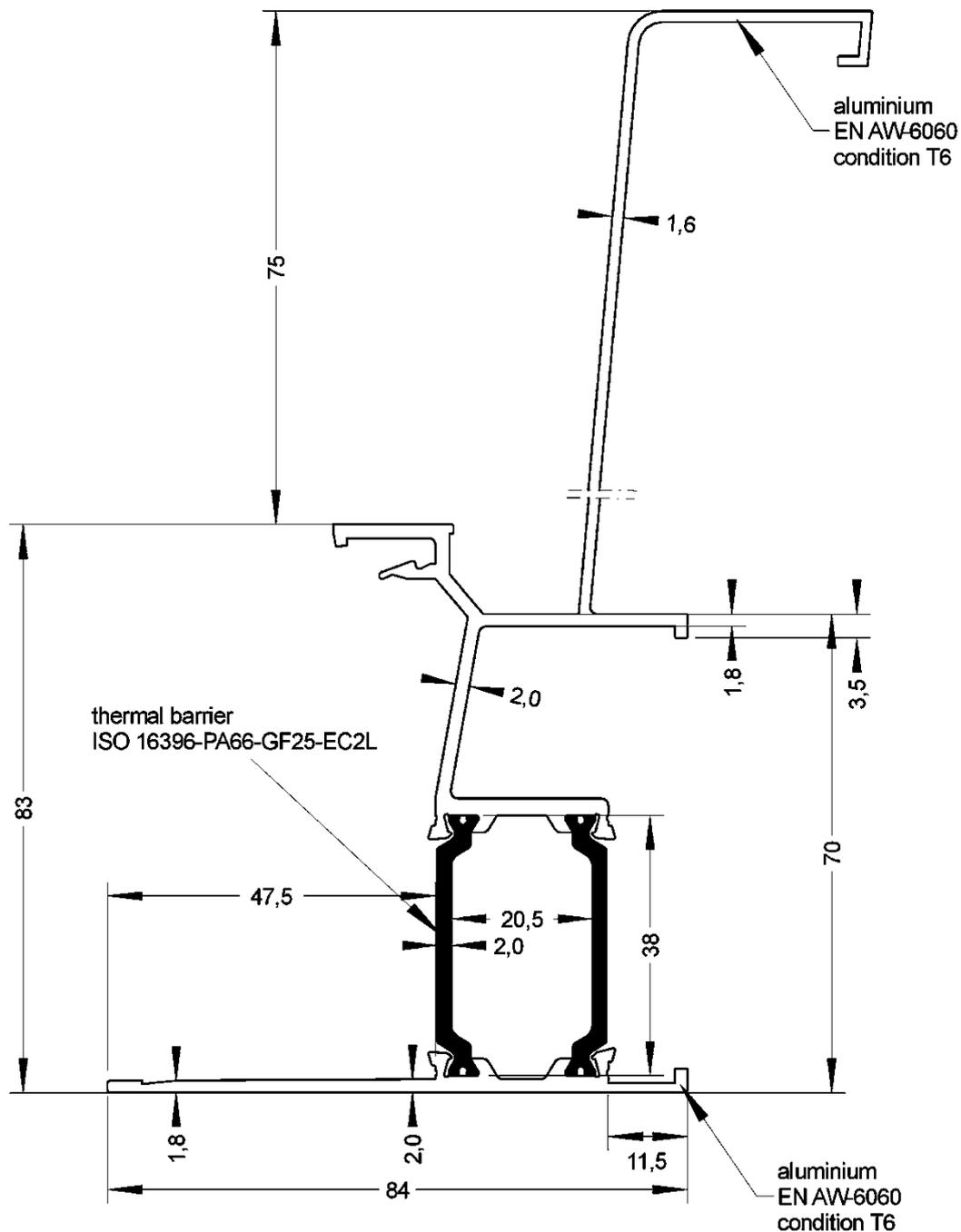
all dimensions in mm

tolerances according to DIN EN 755-9 (aluminium) and ISO 2768m (thermal barrier)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Frame profile with thermal barrier 661013

Annex A 3.1.8



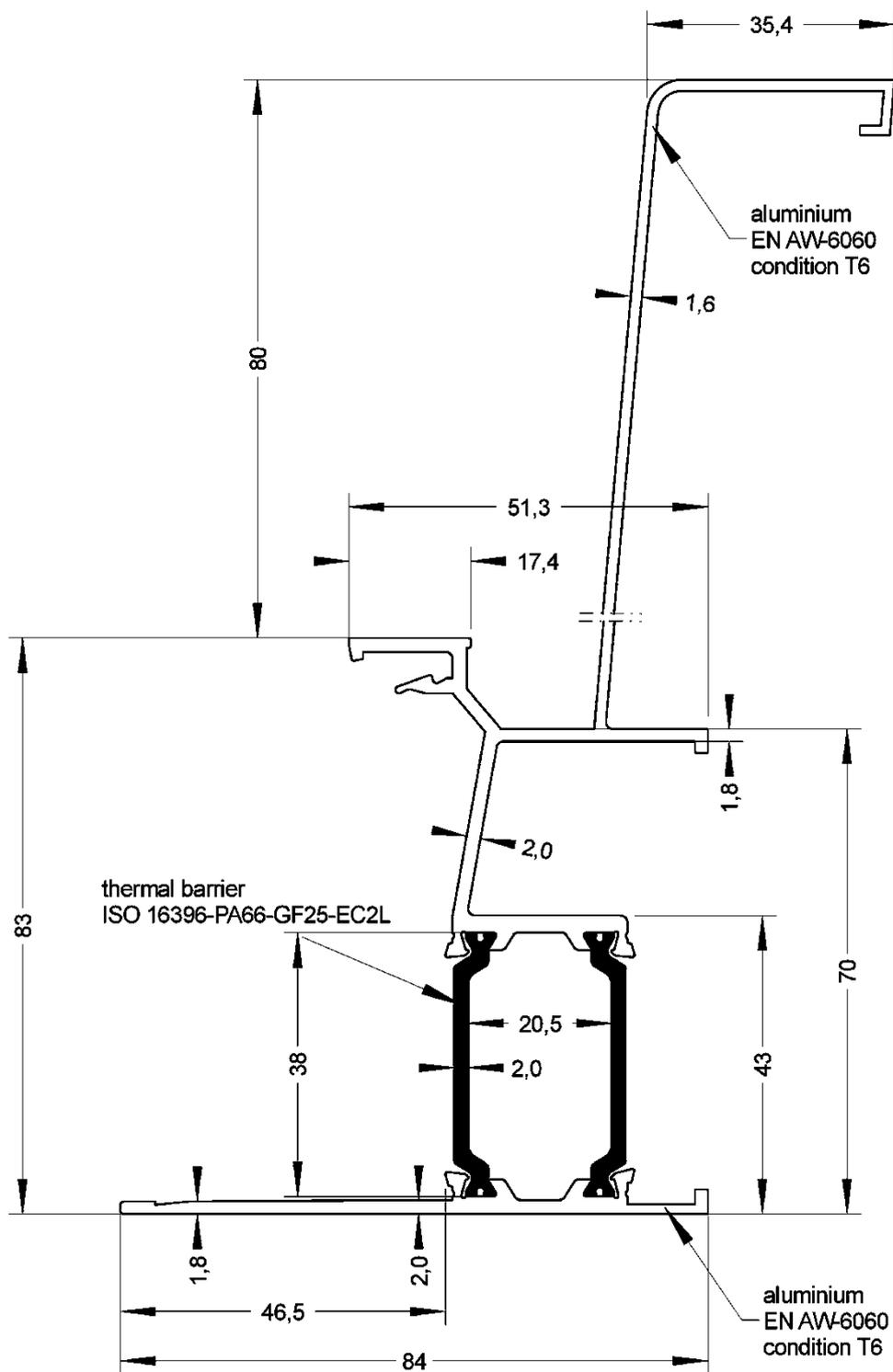
all dimensions in mm

tolerances according to DIN EN 755-9 (aluminium) and ISO 2768m (thermal barrier)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Frame profile with thermal barrier 661110

Annex A 3.1.9



all dimensions in mm

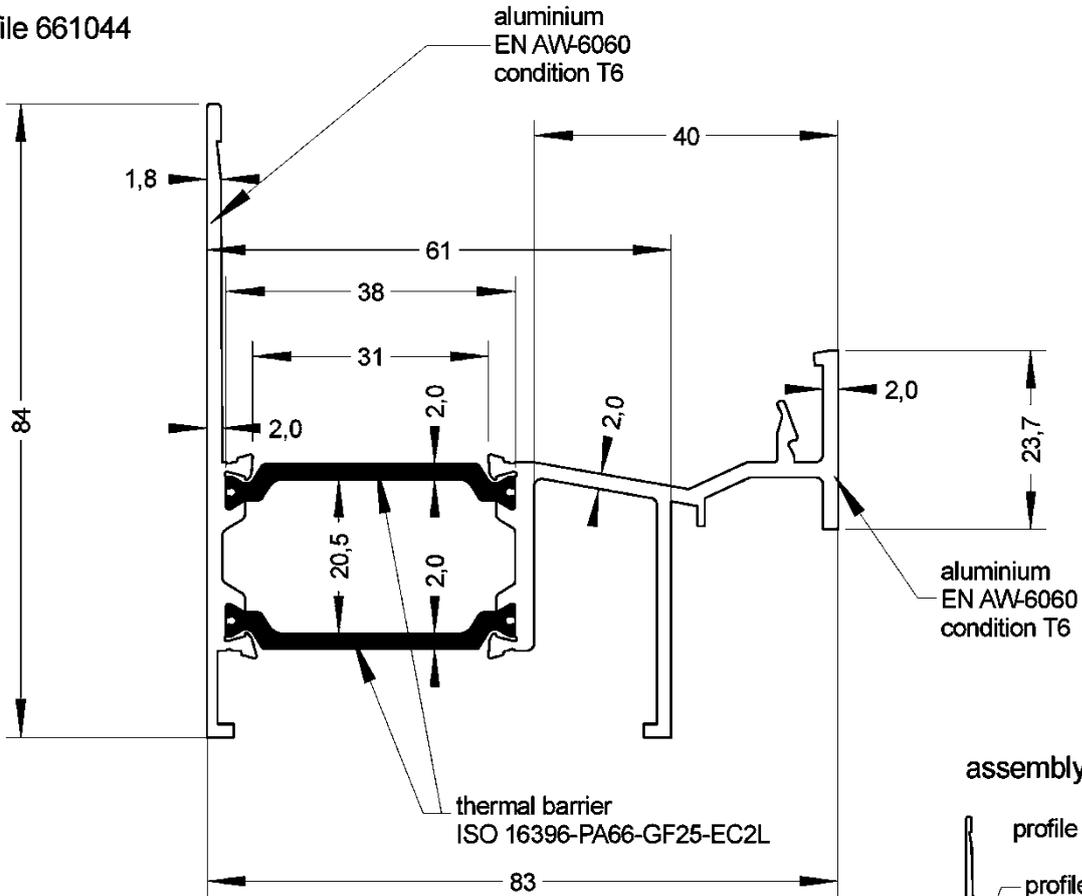
tolerances according to DIN EN 755-9 (aluminium) and ISO 2768m (thermal barrier)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

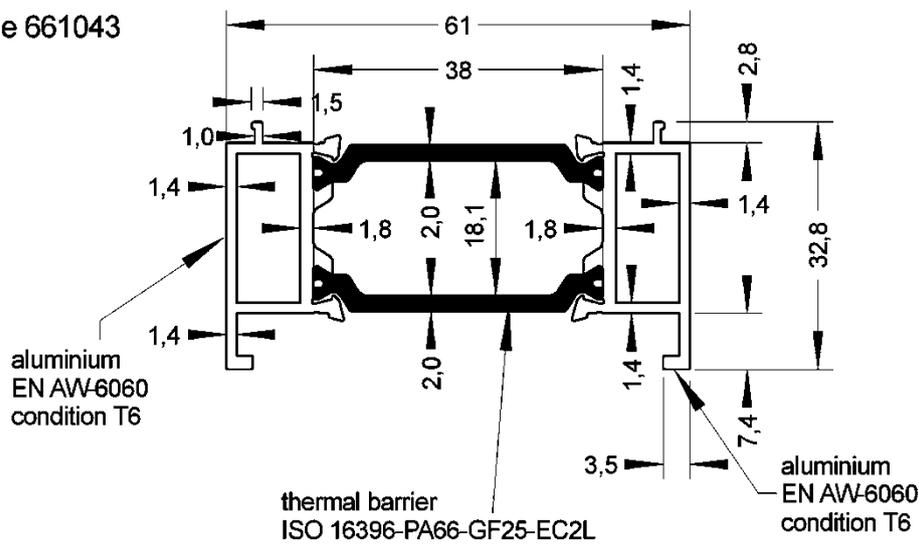
Frame profile with thermal barrier 661150

Annex A 3.1.10

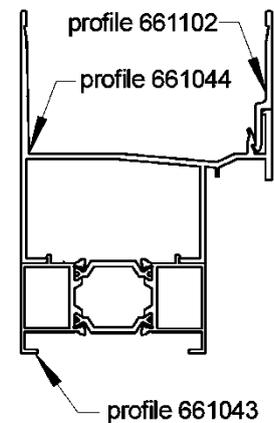
profile 661044



profile 661043



assembly drawing



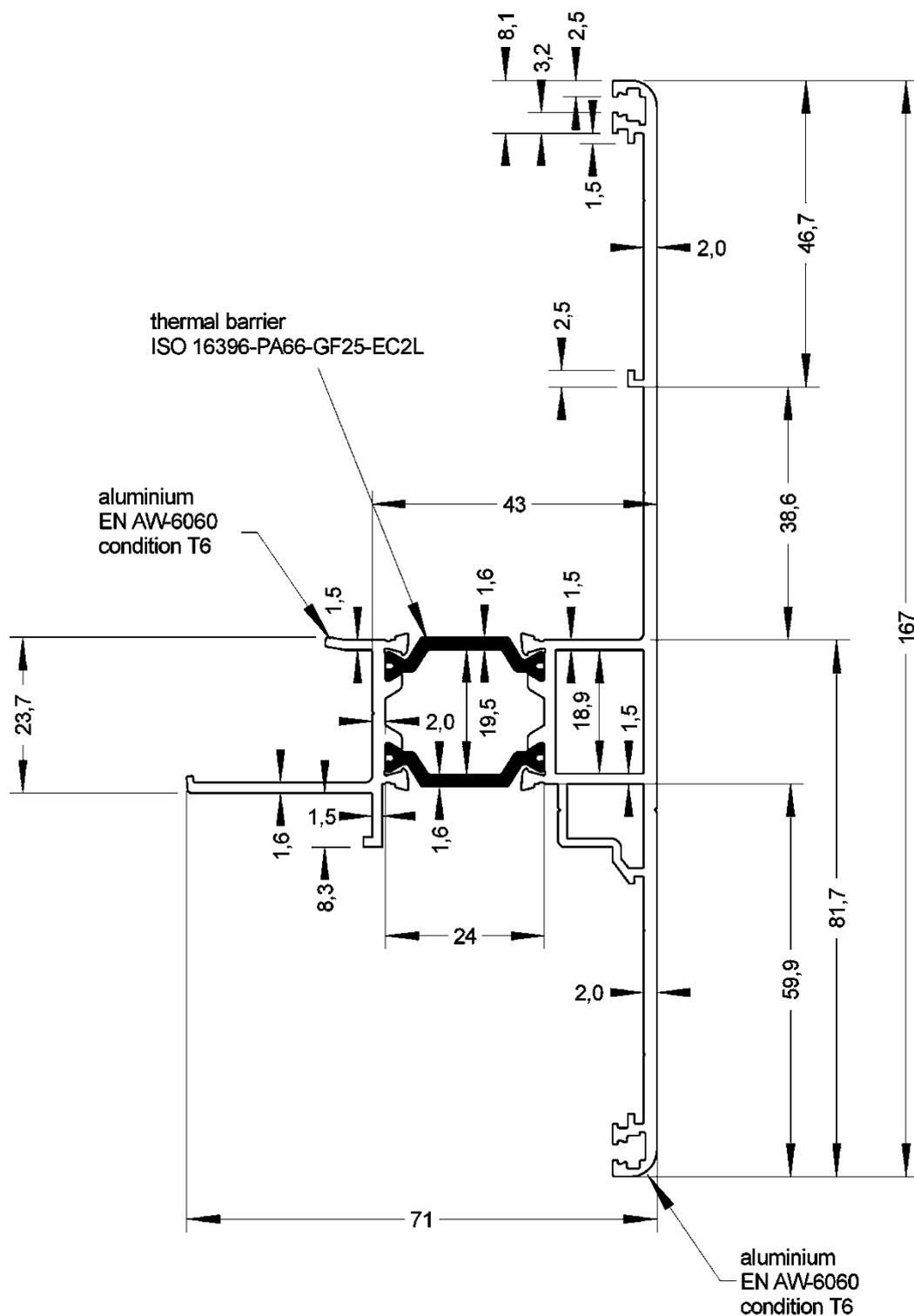
all dimensions in mm

tolerances according to DIN EN 755-9 (aluminium) and ISO 2768m (thermal barrier)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Adapter and base profiles with thermal barrier 661043 and 661044

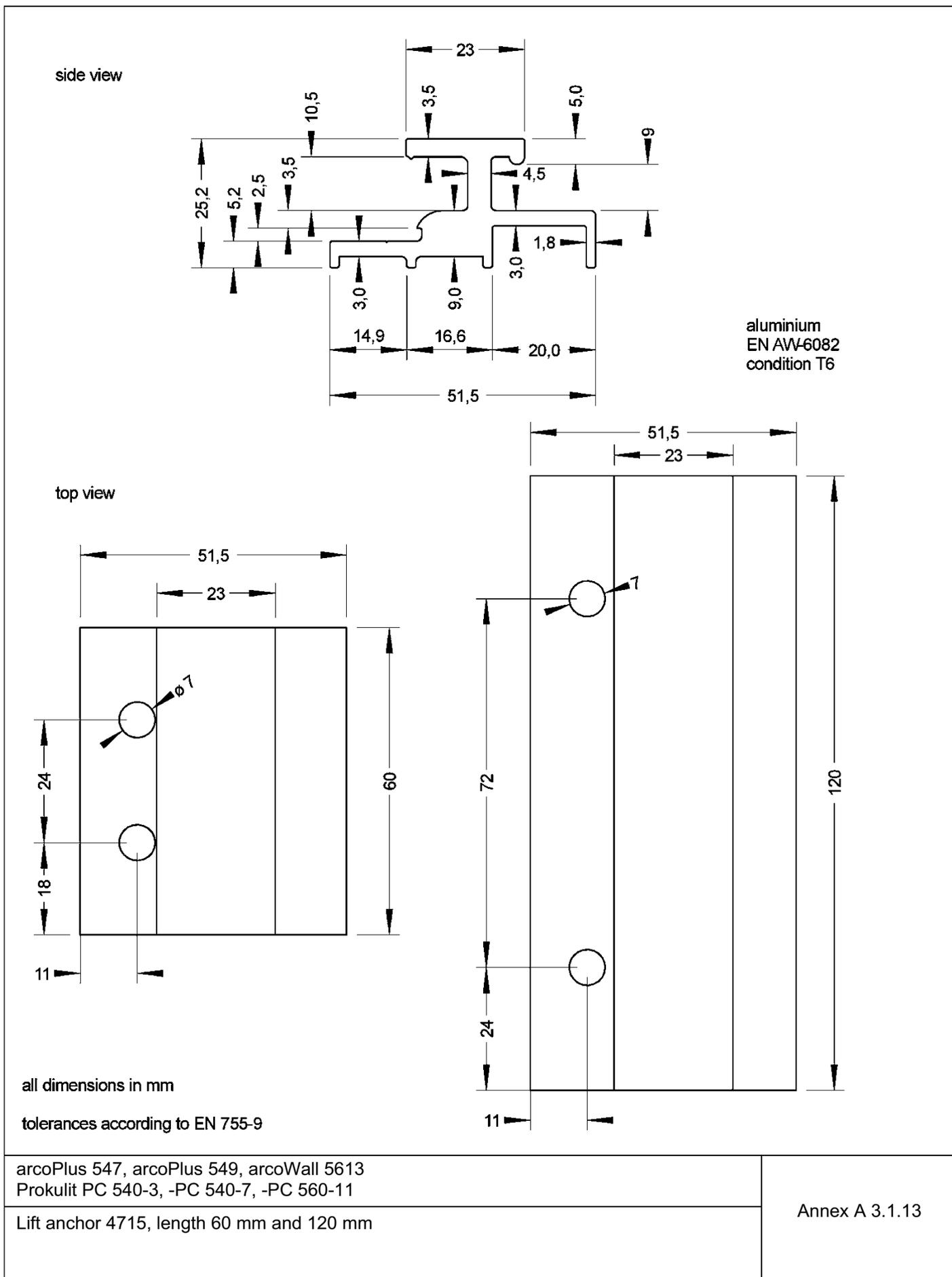
Annex A 3.1.11



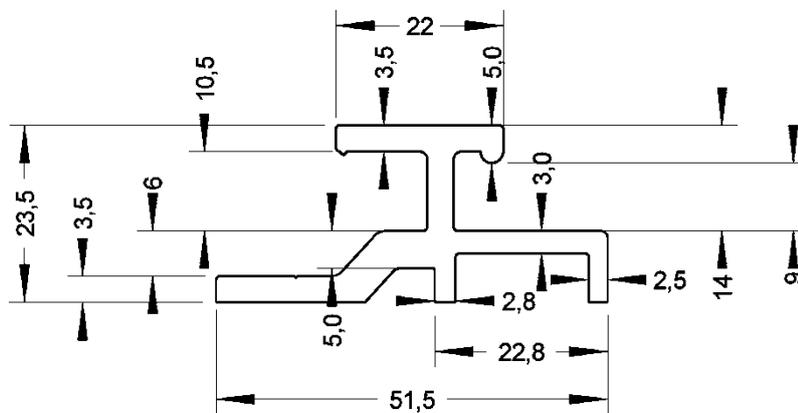
arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Base profile with thermal barrier 4805

Annex A 3.1.12

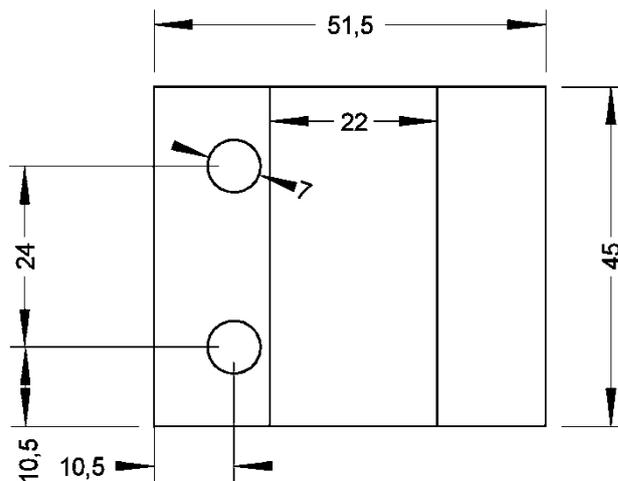


side view



aluminium
EN AW-6082
condition T6

top view



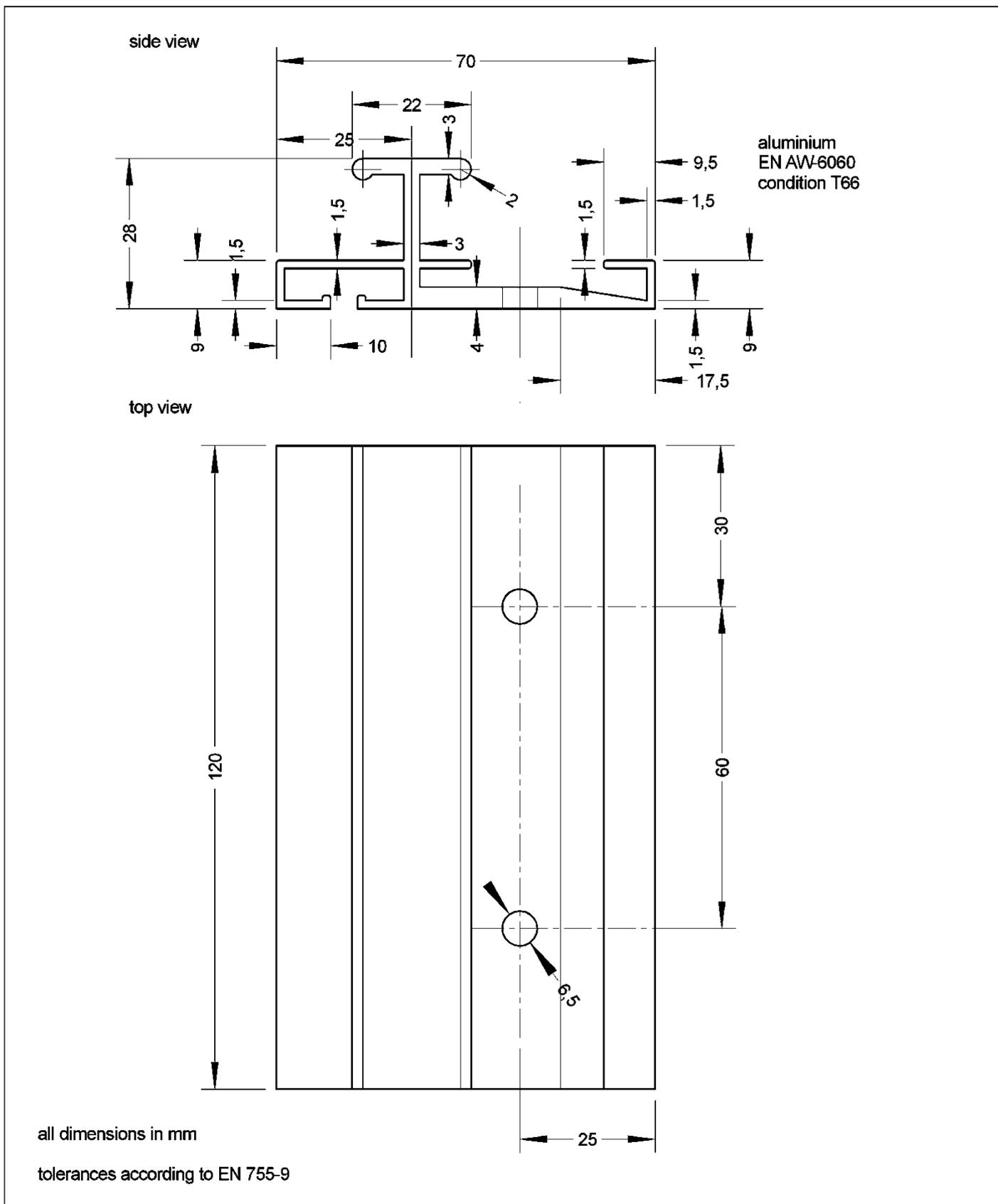
all dimensions in mm

tolerances according to EN 755-9

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Lift anchor 4716, length 45 mm

Annex A 3.1.14

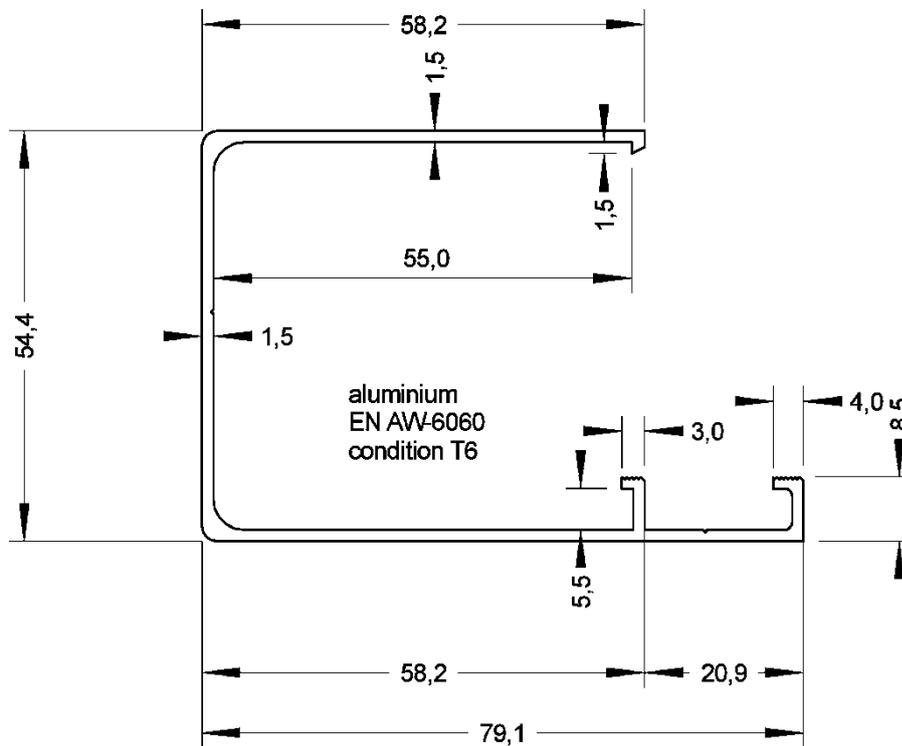


arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

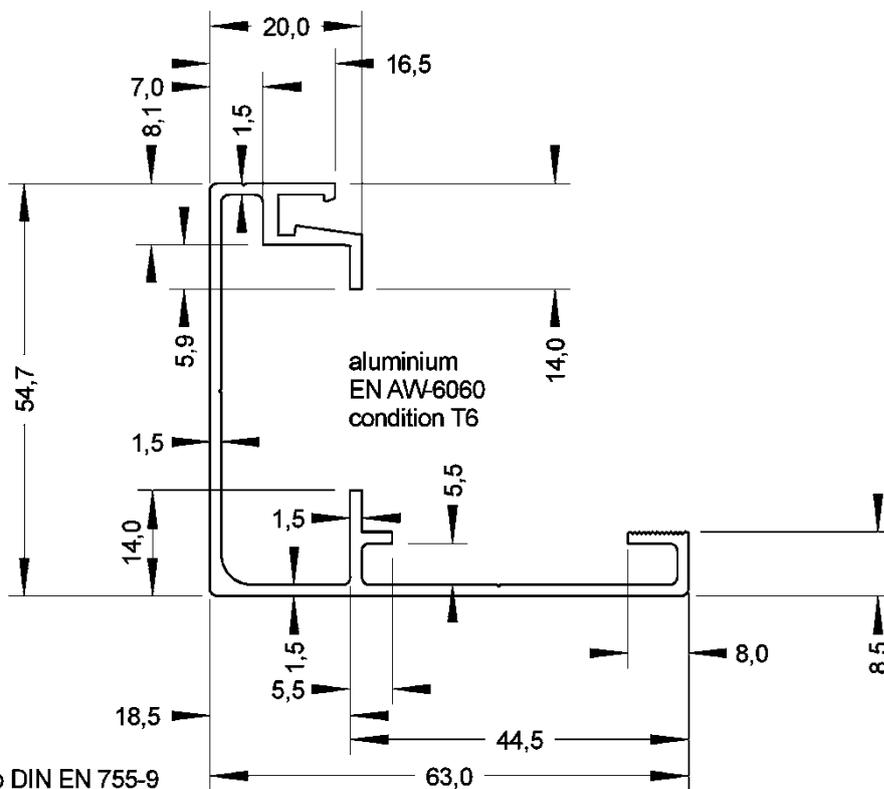
Lift anchor 642252, length 120 mm

Annex A 3.1.15

profile 4045



profile 4140



all dimensions in mm

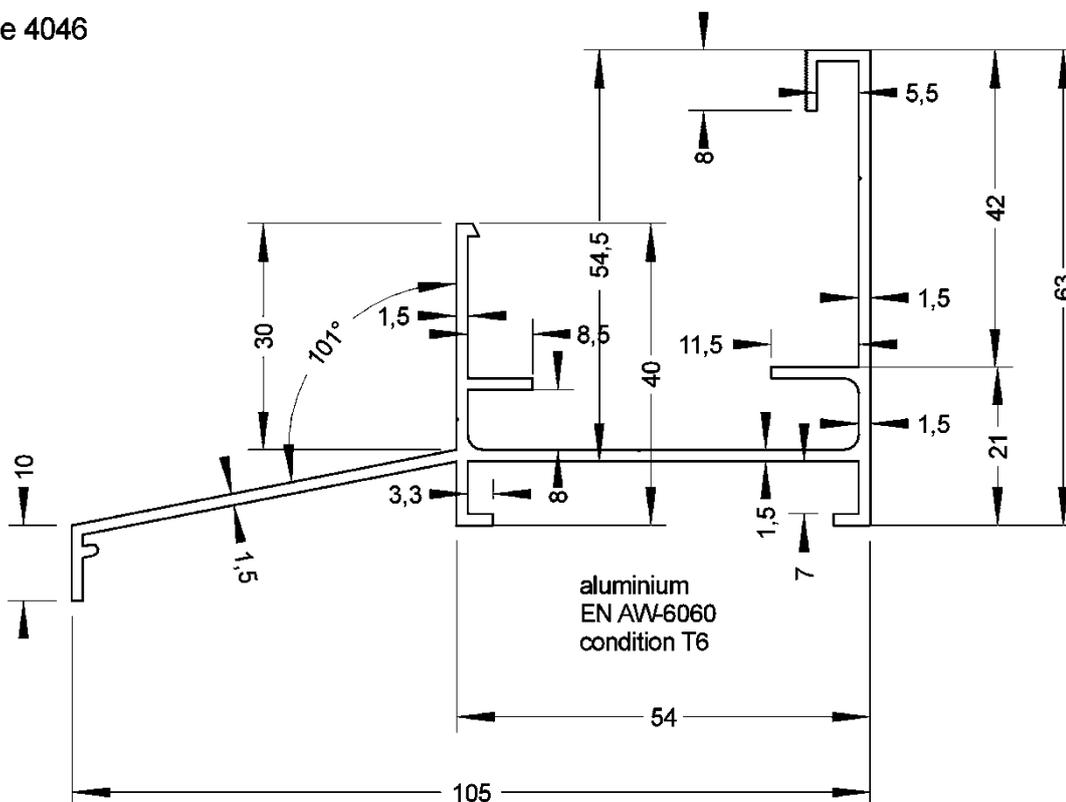
tolerances according to DIN EN 755-9

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

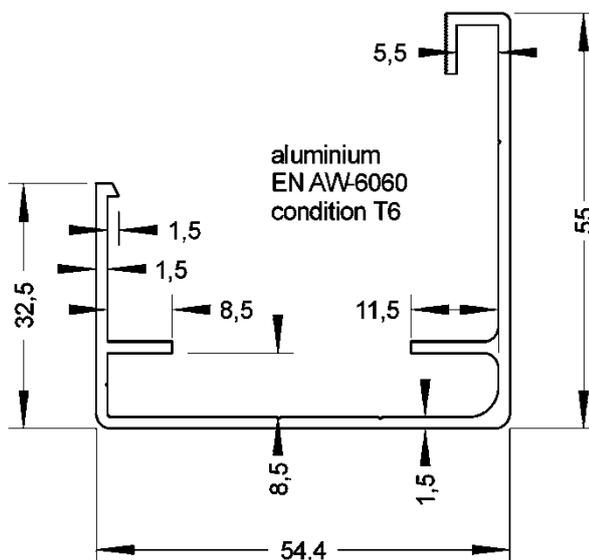
Frame profiles 4045 and 4140

Annex A 3.2.1

profile 4046



profile 4047



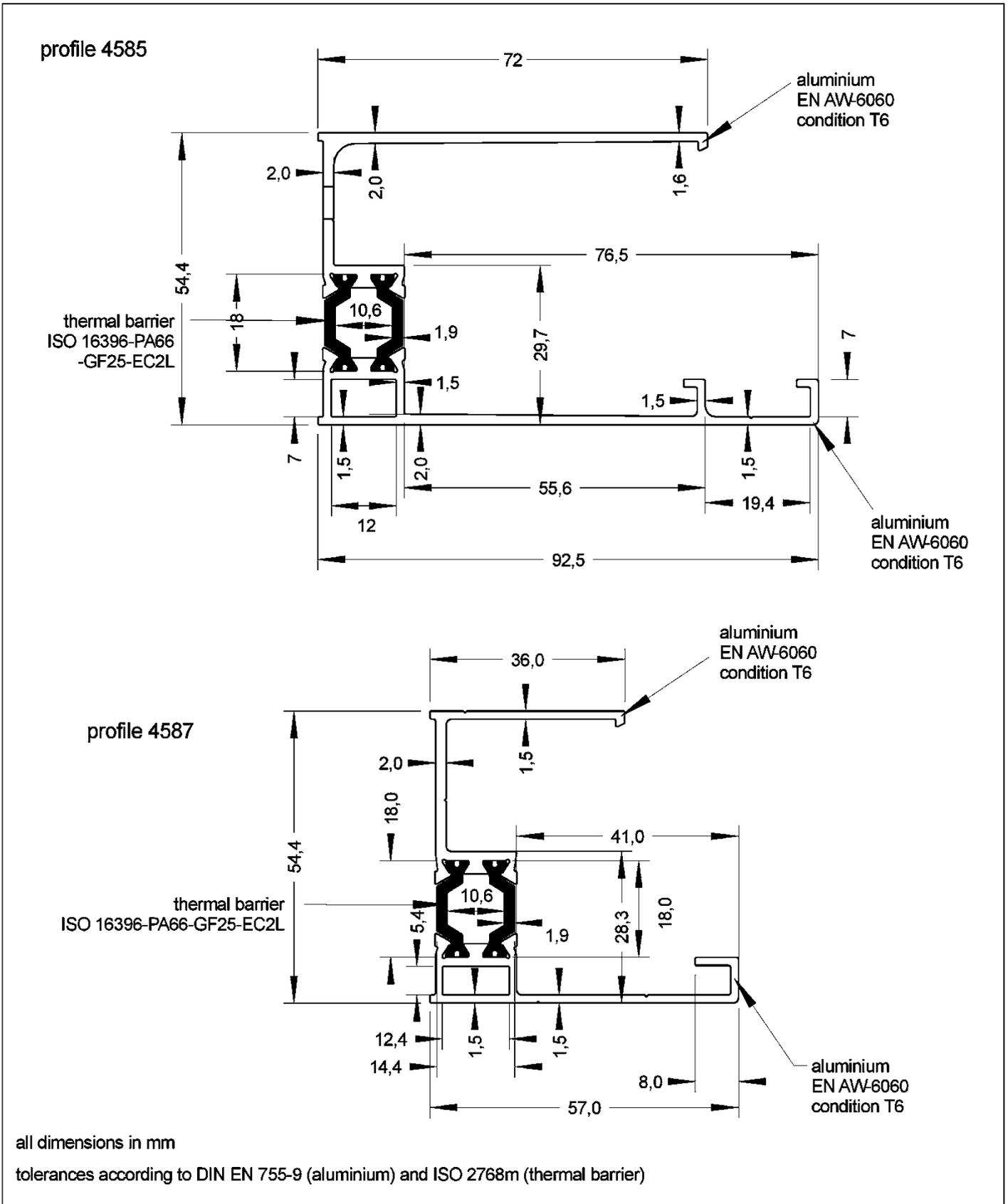
all dimensions in mm

tolerances according to DIN EN 755-9

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Frame profiles 4046 and 4047

Annex A 3.2.2

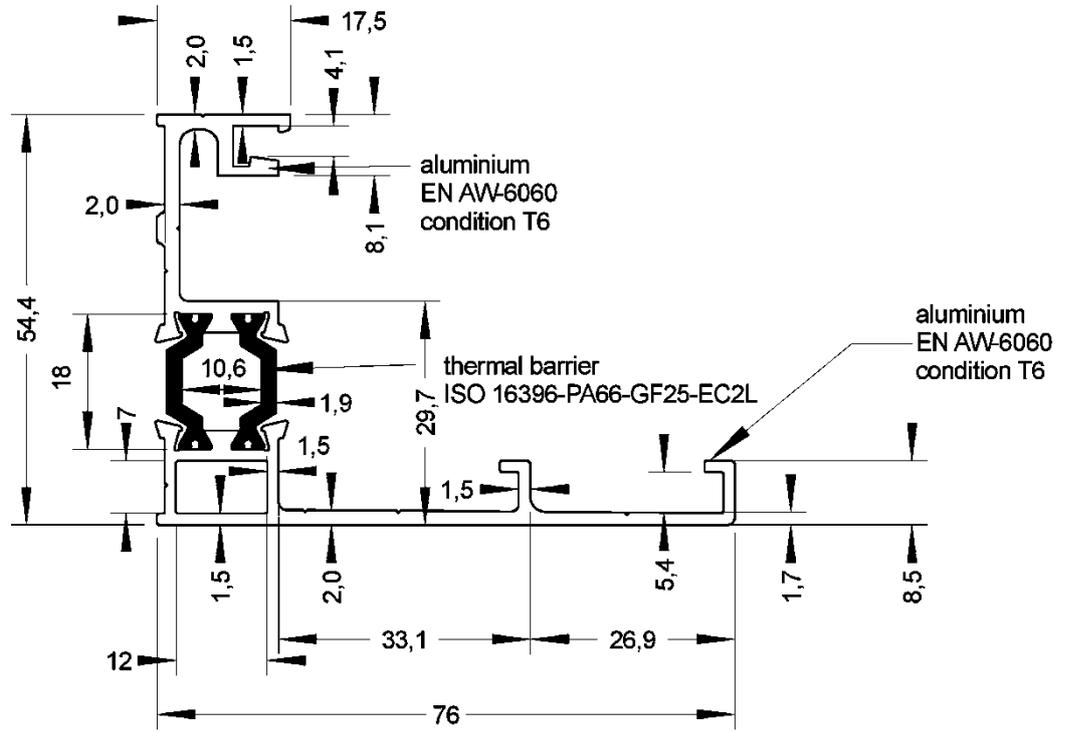


arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

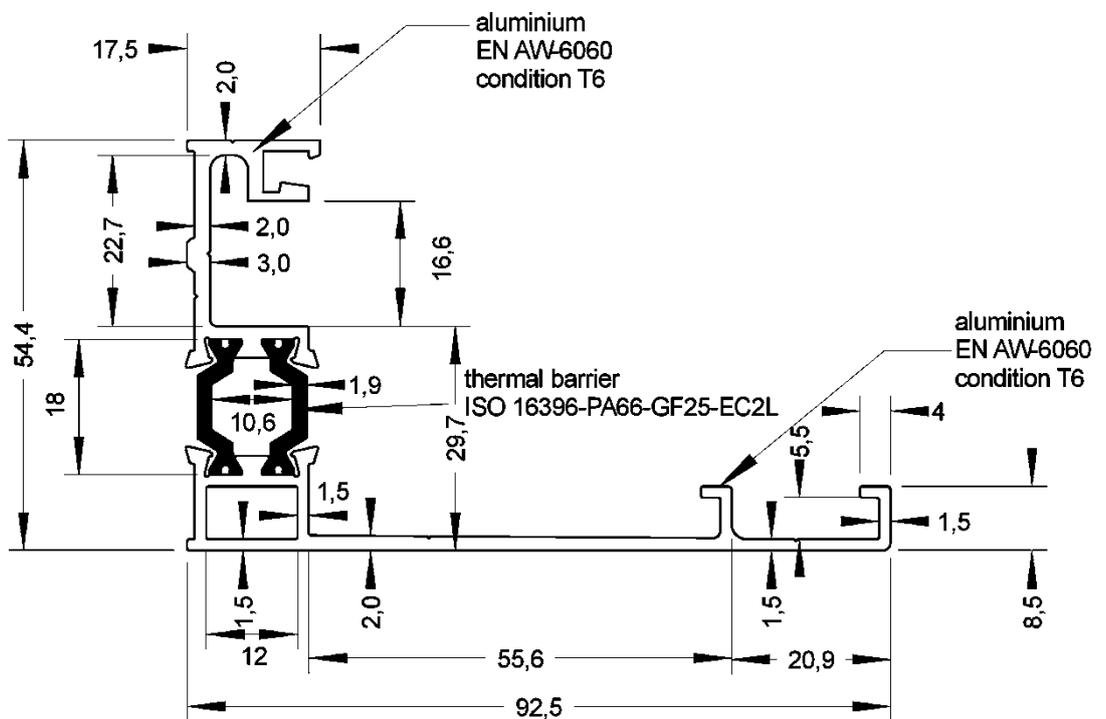
Base profiles with thermal barrier 4585 and 4587

Annex A 3.2.3

profile 4597



profile 4598



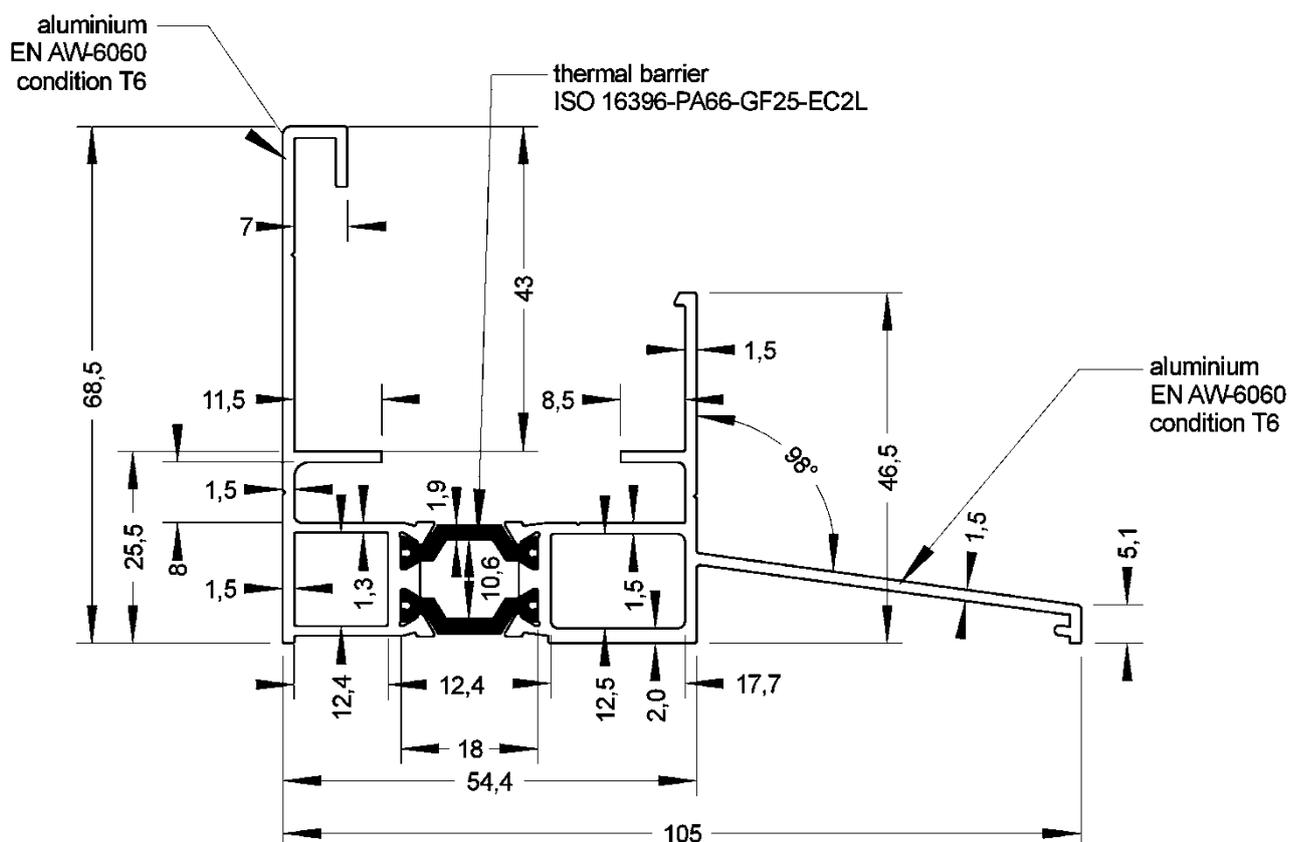
all dimensions in mm

tolerances according to DIN EN 755-9 (aluminium) and ISO 2768m (thermal barrier)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Frame profiles with thermal barrier 4597 and 4598

Annex A 3.2.4



all dimensions in mm

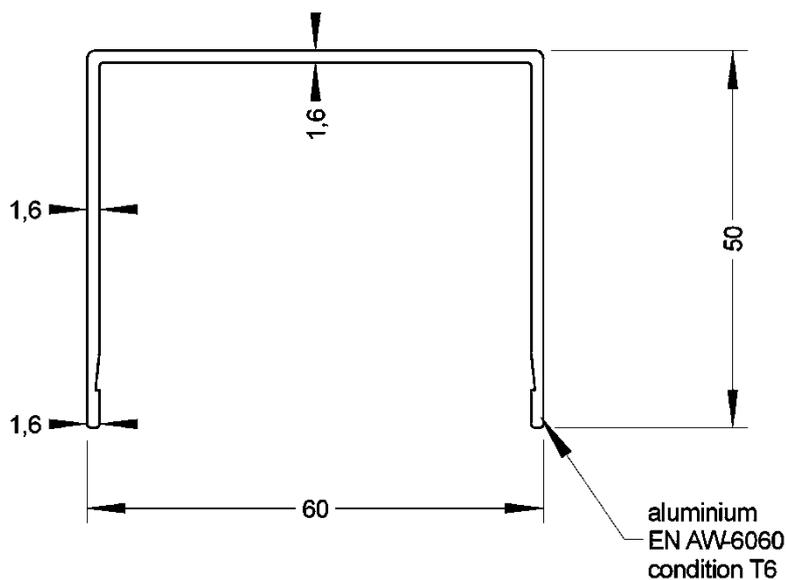
tolerances according to DIN EN 755-9 (aluminium) and ISO 2768m (thermal barrier)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

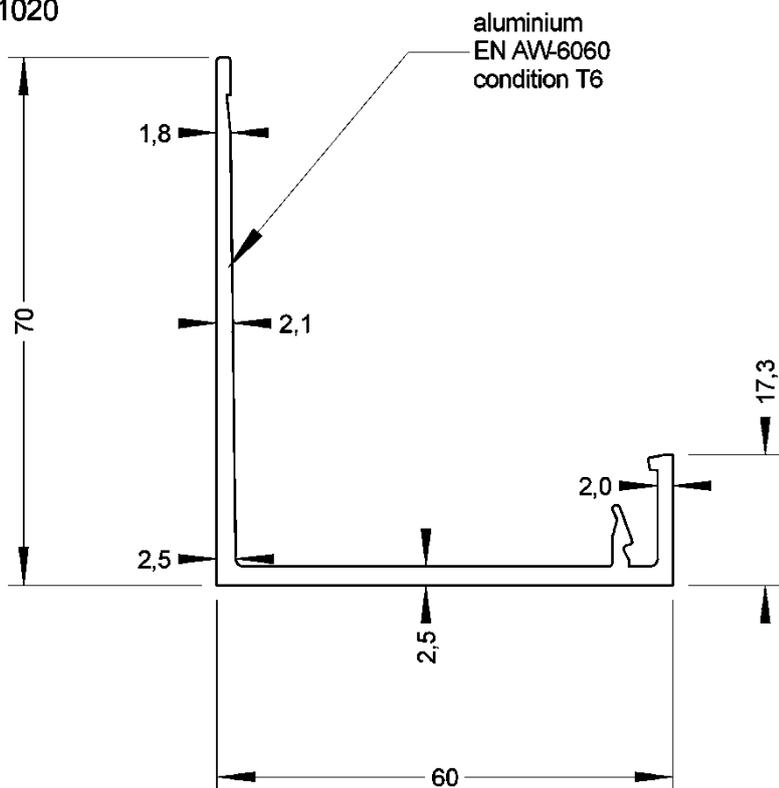
Frame profile with thermal barrier 4590

Annex A 3.2.5

profile 641010



profile 641020



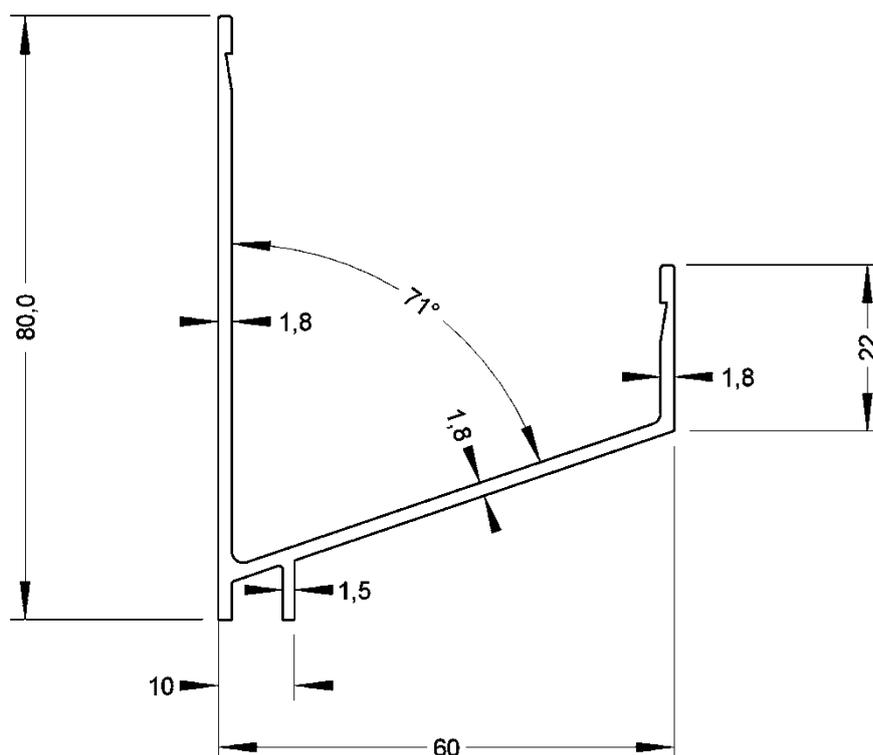
all dimensions in mm

tolerances according to DIN EN 755-9

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Frame profiles 641010 and 641020

Annex A 3.2.6



aluminium
EN AW-6060
condition T6

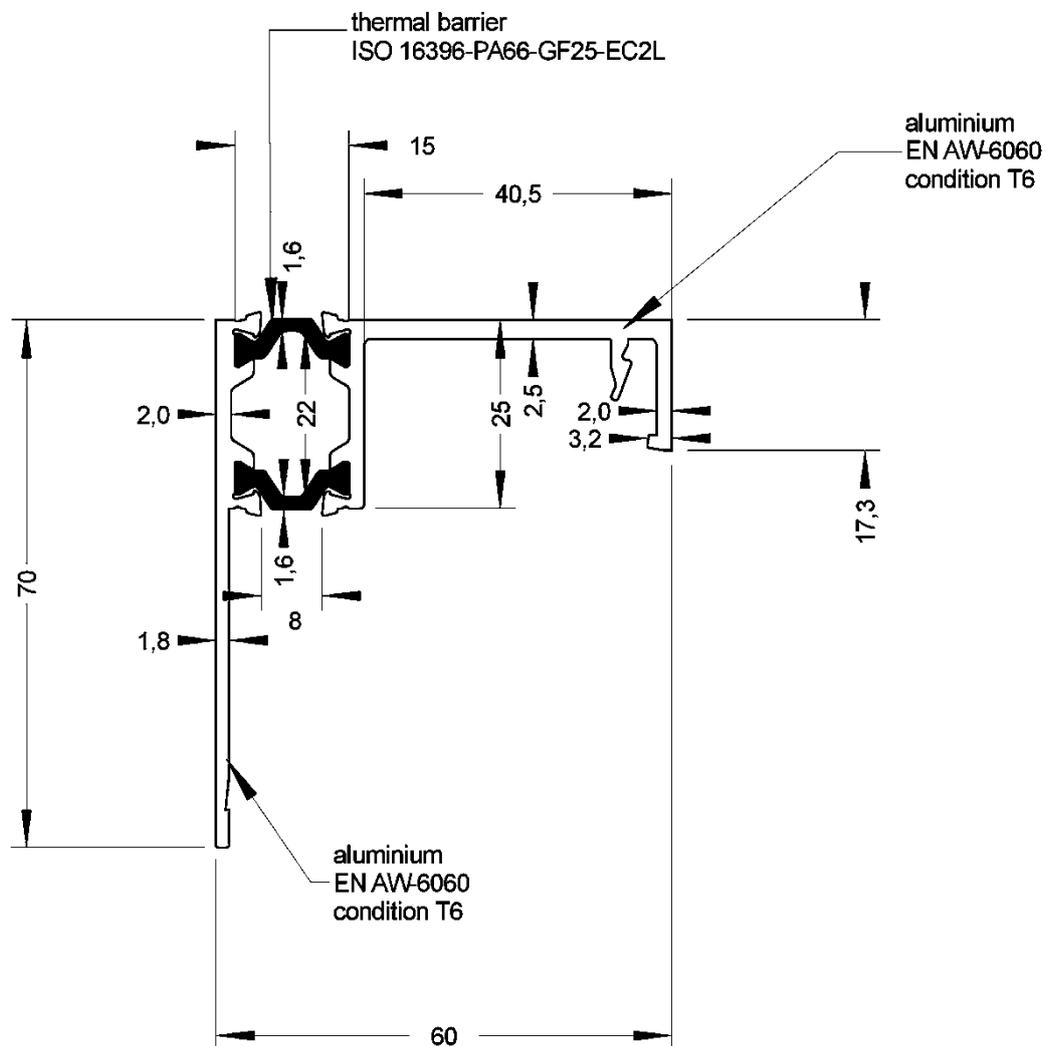
all dimensions in mm

tolerances according to EN 755-9

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Frame and additional profile 641030

Annex A 3.2.8



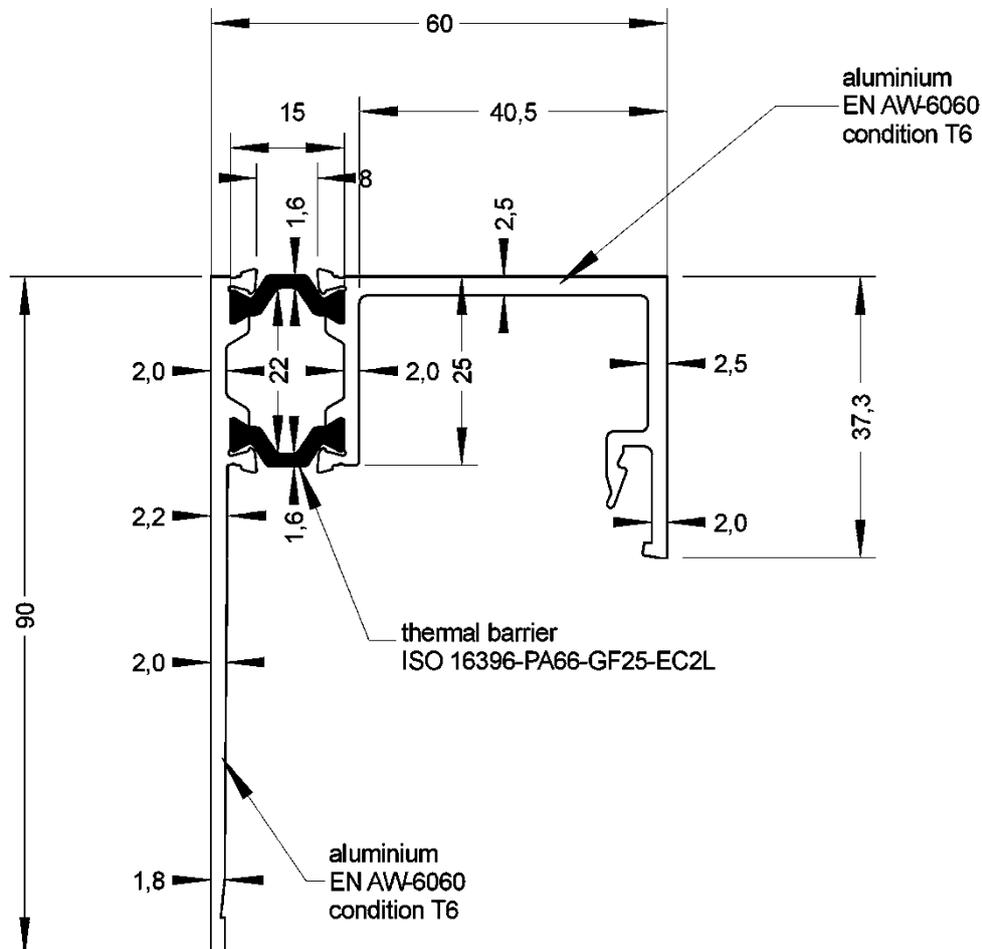
all dimensions in mm

tolerances according to EN 755-9 (aluminium) and ISO
2768m (thermal barrier)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Frame profile with thermal barrier 641012

Annex A 3.2.10



all dimensions in mm

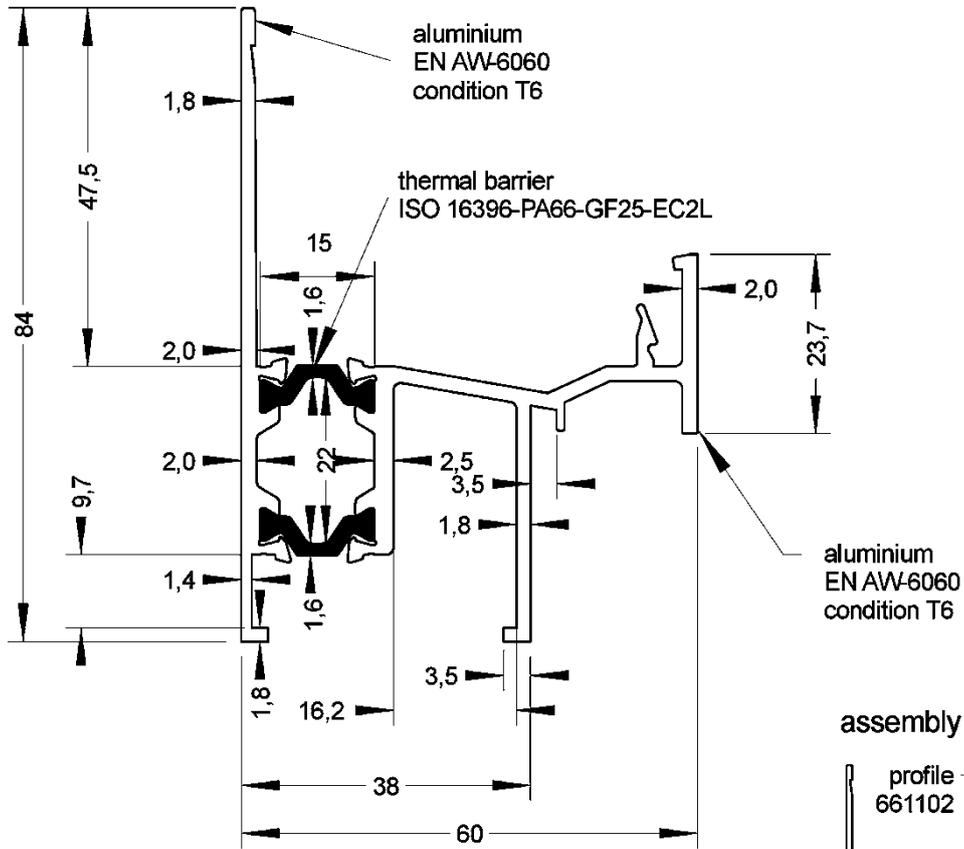
tolerances according to EN 755-9 (aluminium) and
ISO 2768m (thermal barrier)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

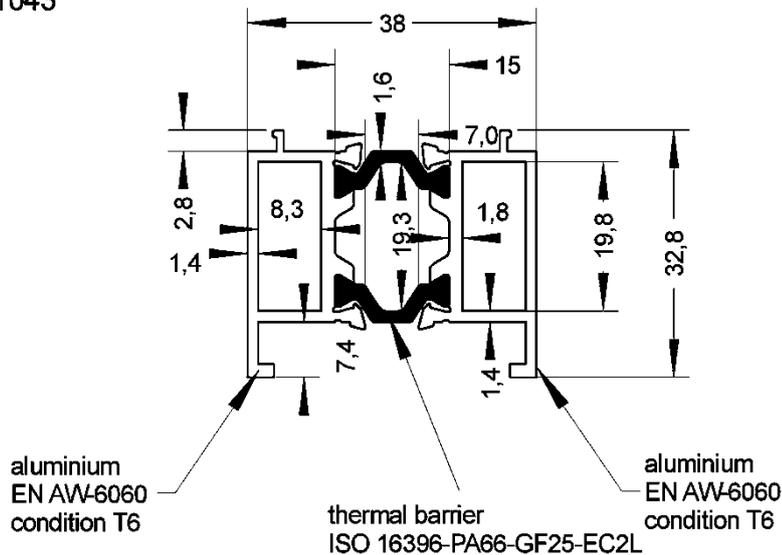
Frame profile with thermal barrier 641013

Annex A 3.2.11

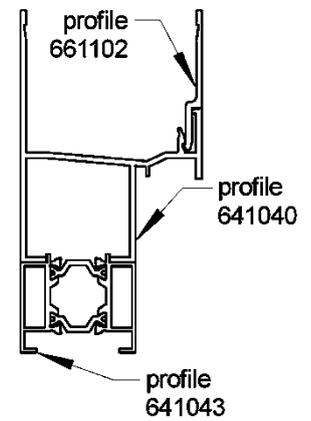
profile 641044



profile 641043



assembly drawing



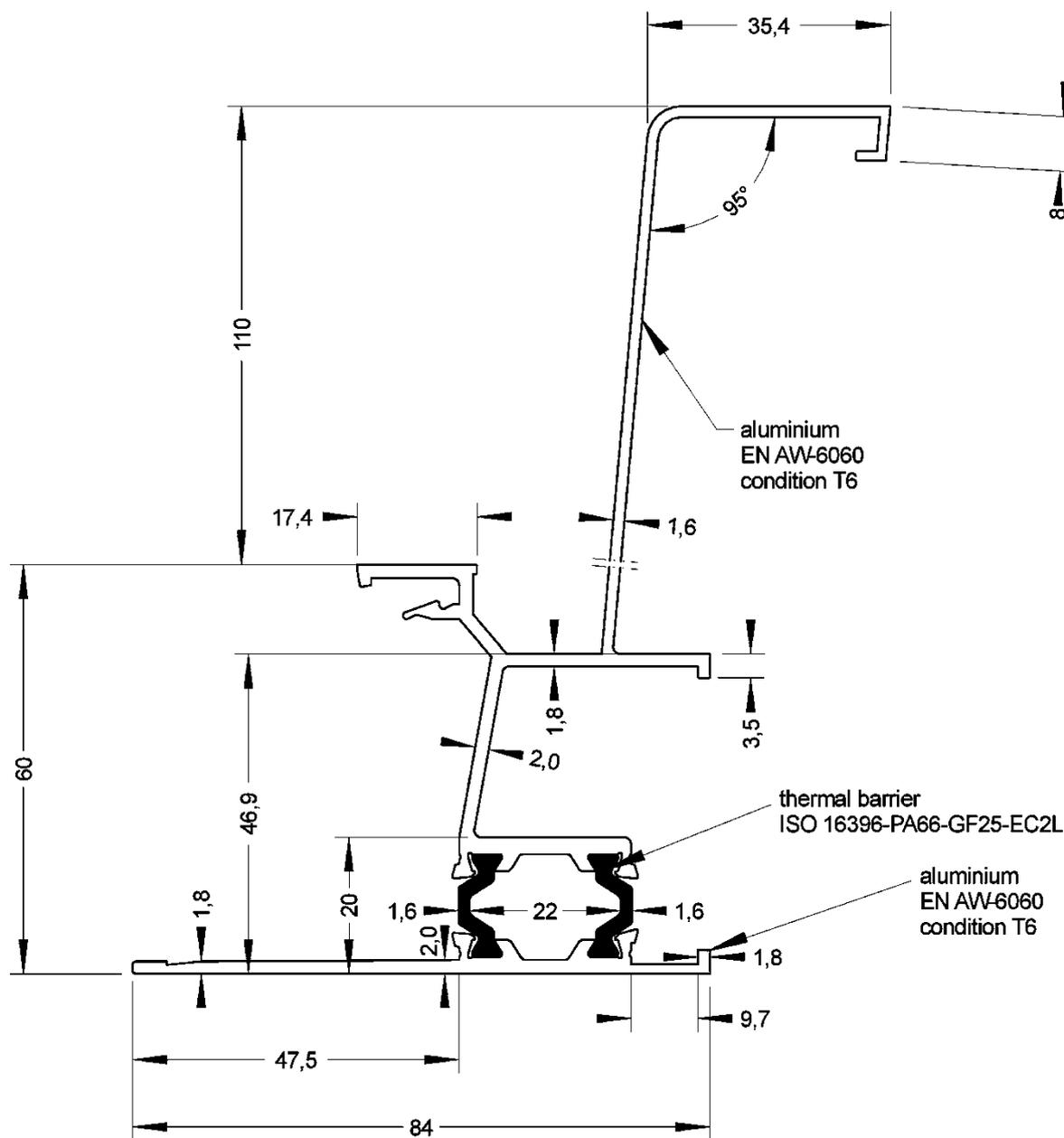
all dimensions in mm

tolerances according to EN 755-9 (aluminium) and ISO 2768m (thermal barrier)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Adapter and base profiles with thermal barrier 641043 and 641044

Annex A 3.2.12



all dimensions in mm

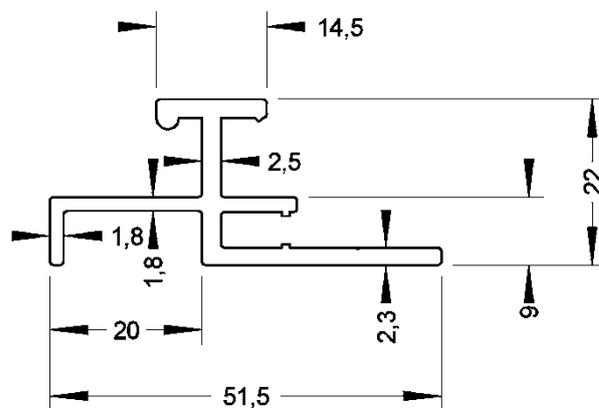
tolerances according to EN 755-9 (aluminium) and ISO
2768m (thermal barrier)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Base profile with thermal barrier 641110

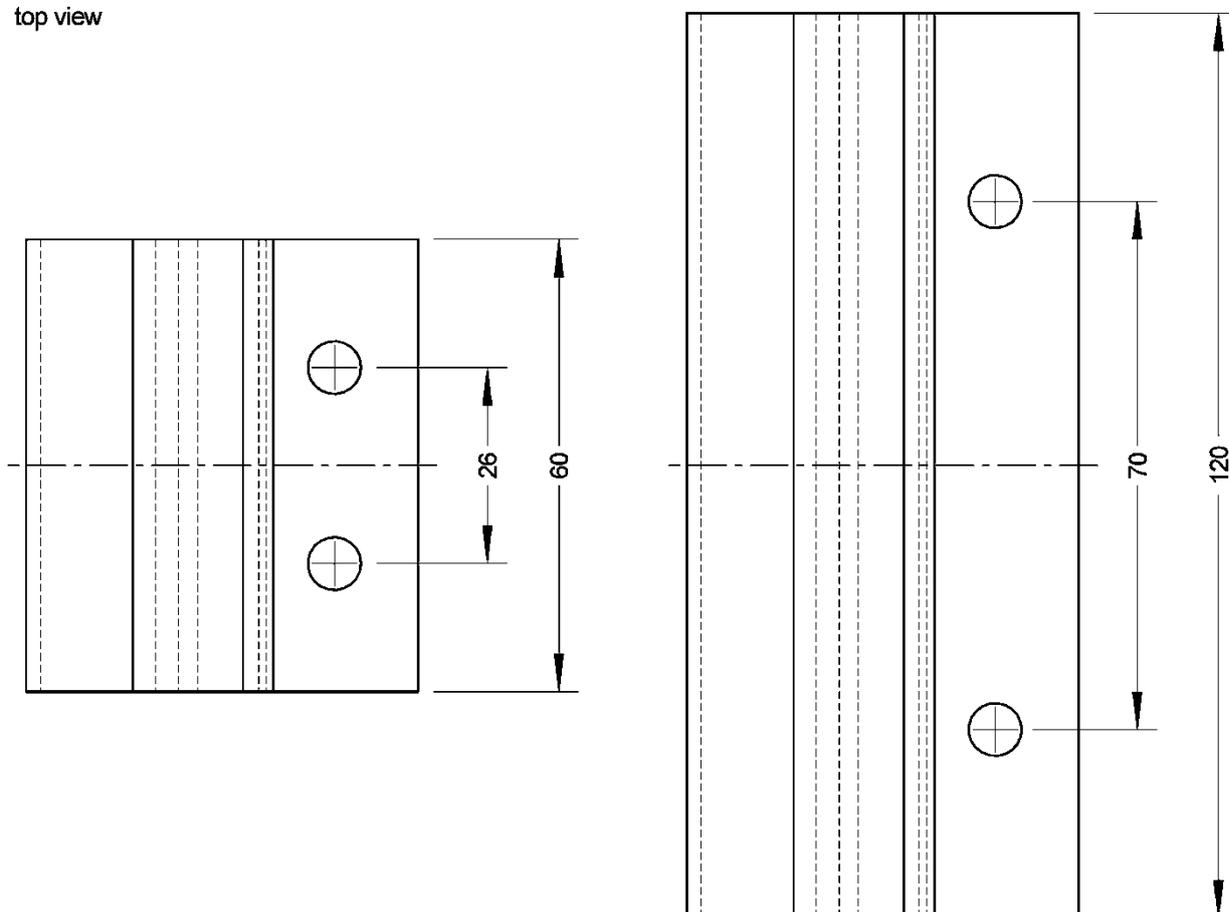
Annex A 3.2.13

side view



aluminium
EN AW-6060
condition T6

top view



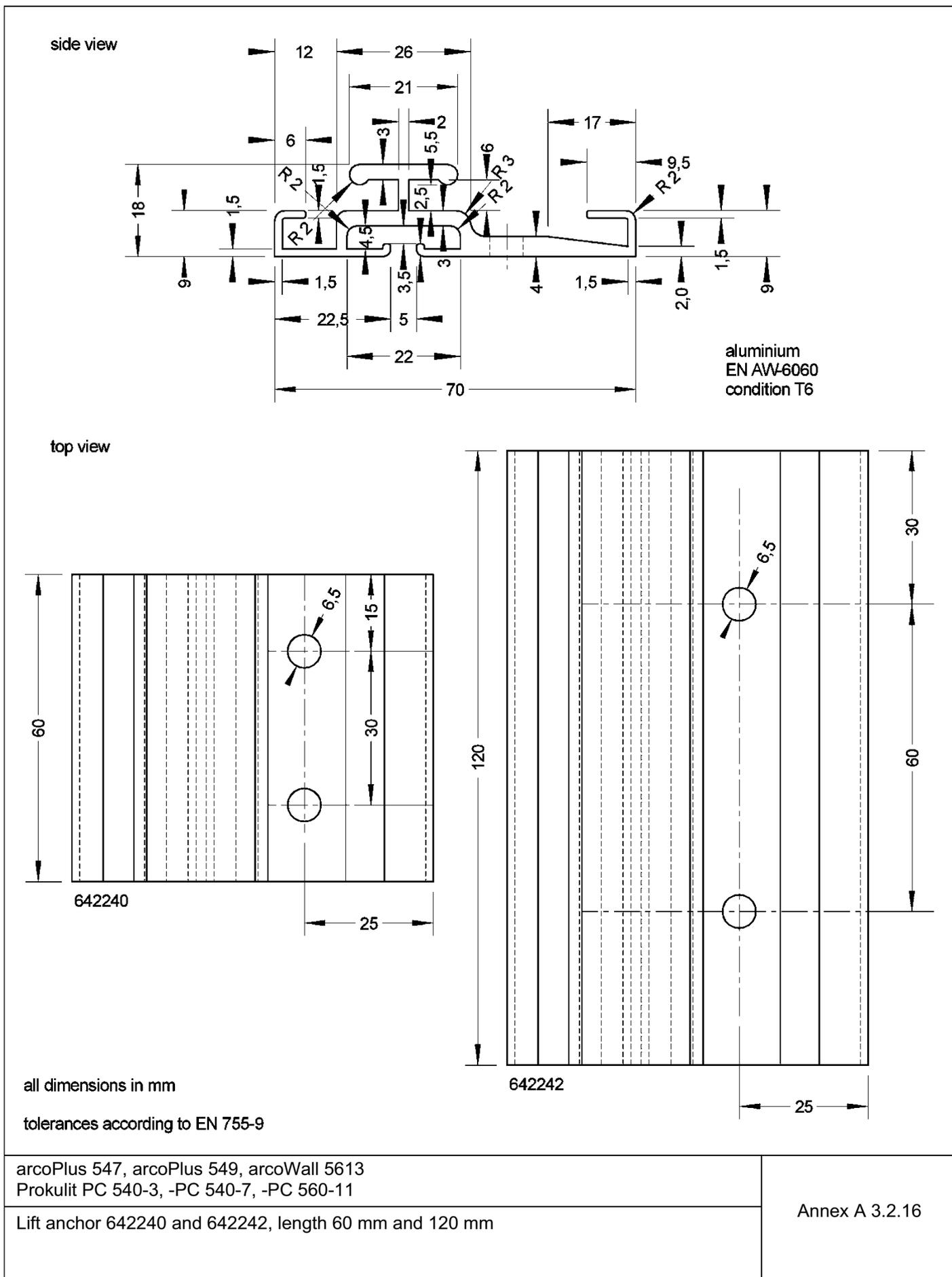
all dimensions in mm

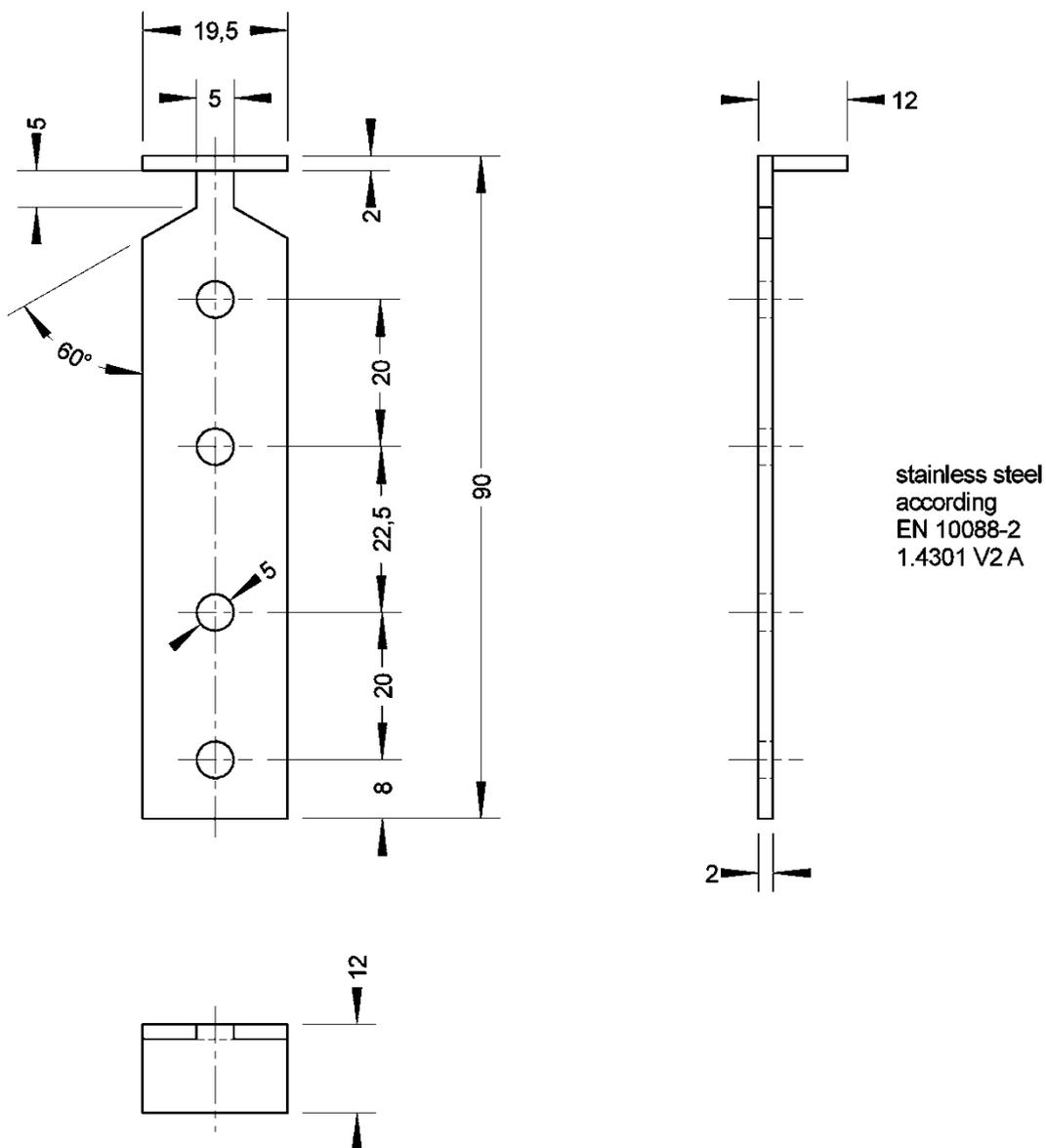
tolerances according to EN 755-9

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Lift anchor 4050, length 60 mm and 120 mm

Annex A 3.2.15





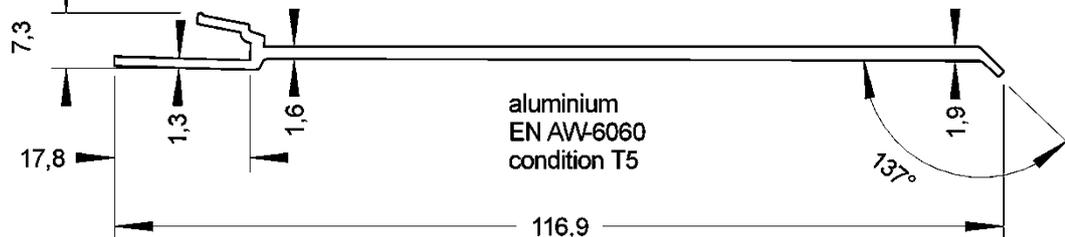
all dimensions in mm

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

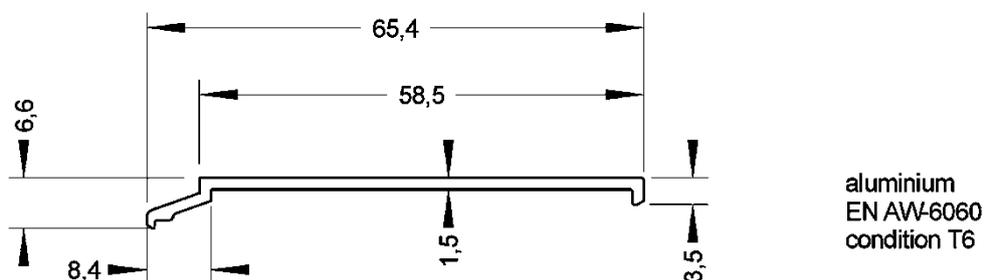
Lift anchor 642200

Annex A 3.2.17

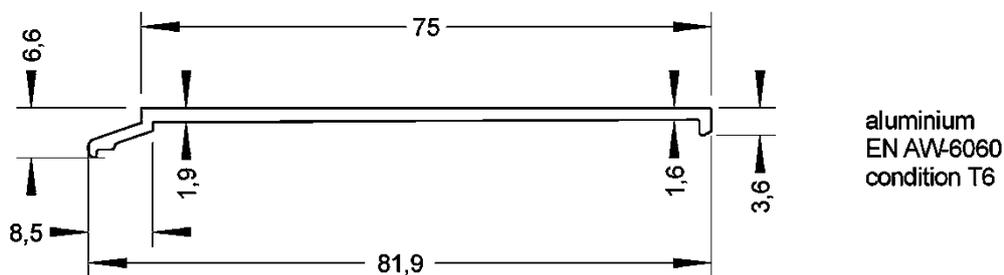
profile 4275



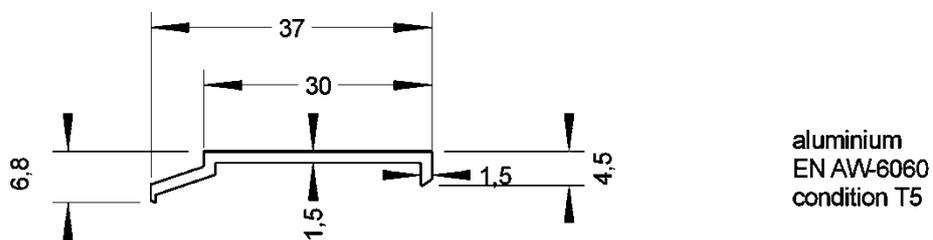
profile 4742



profile 4743



profile 4755



all dimensions in mm

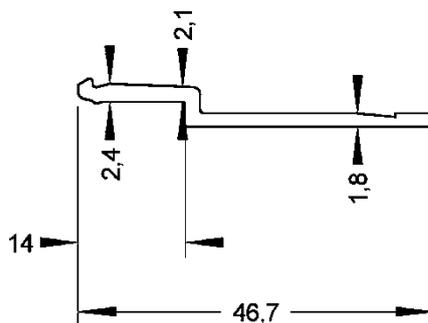
tolerances according to DIN EN 755-9

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Additional profiles 4742, 4743, 4755 and 4275

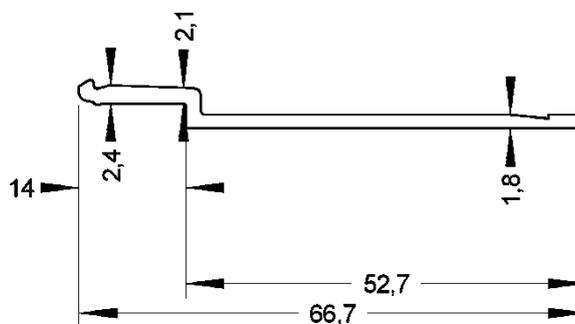
Annex A 3.3.1

profile 661102



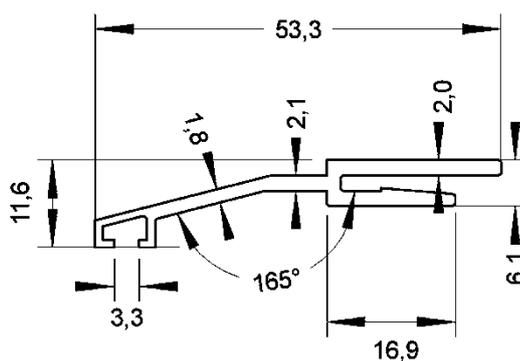
aluminium
EN AW-6060
condition T6

profile 661021



aluminium
EN AW-6060
condition T6

profile 661061



aluminium
EN AW-6060
condition T66

all dimensions in mm

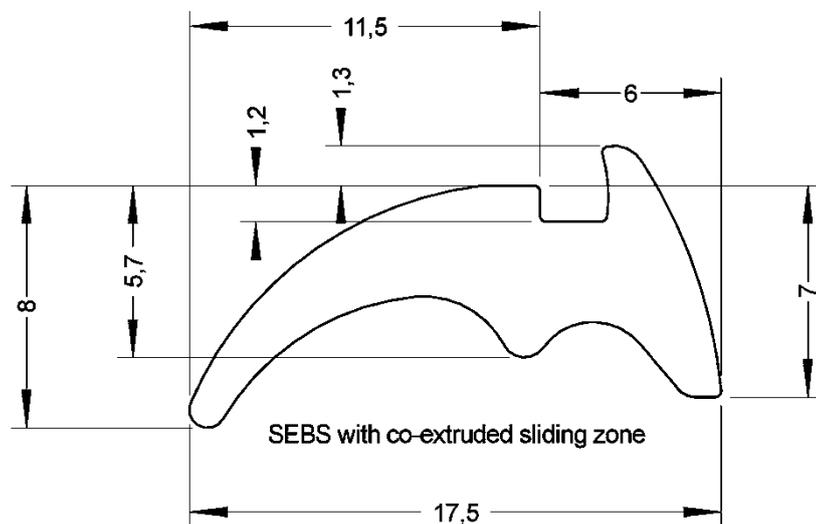
tolerances according to DIN EN 755-9

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Additional profiles 661102, 661021 and 661061

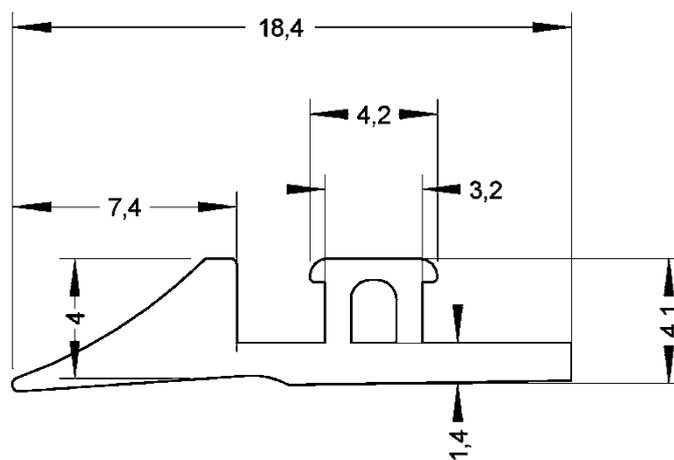
Annex A 3.3.2

sealing profile 1169/b



ISO 18064: TPS-SEBS
(65±5) Shore A
as per EN ISO 868

sealing profile 641080



EPDM
(65±5) Shore A
as per EN ISO 868

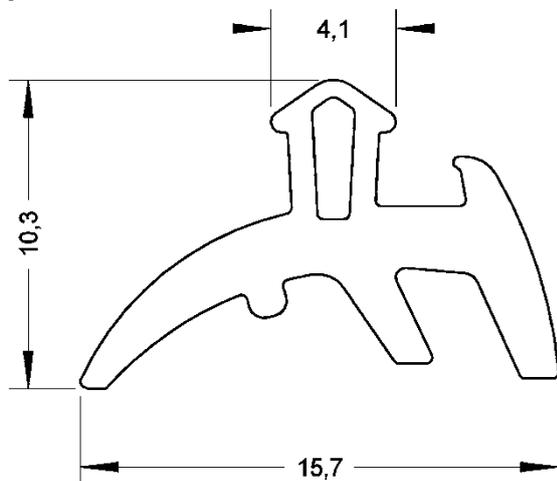
all dimensions in mm

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Sealing profiles 1169/b and 641080

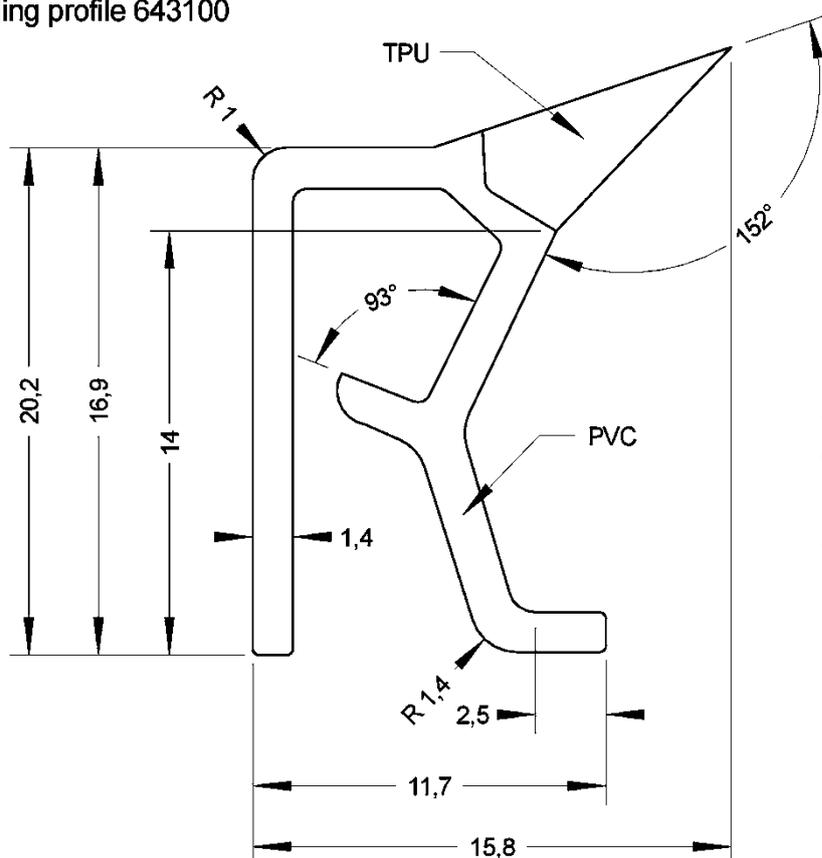
Annex A 3.4.1

sealing profile 1382



ISO 18064: TPS-SEBS
(65±5) Shore A
as per EN ISO 868

sealing profile 643100



Polyvinylchlorid (PVC)
ISO 21306-PVC-U,,EGL,082-05-T33

Thermoplastic Polyurethan (TPU)
compounded of Bayer AG,
Leverkusen (Desmopan)
(70±5) Shore A
as per EN ISO 868

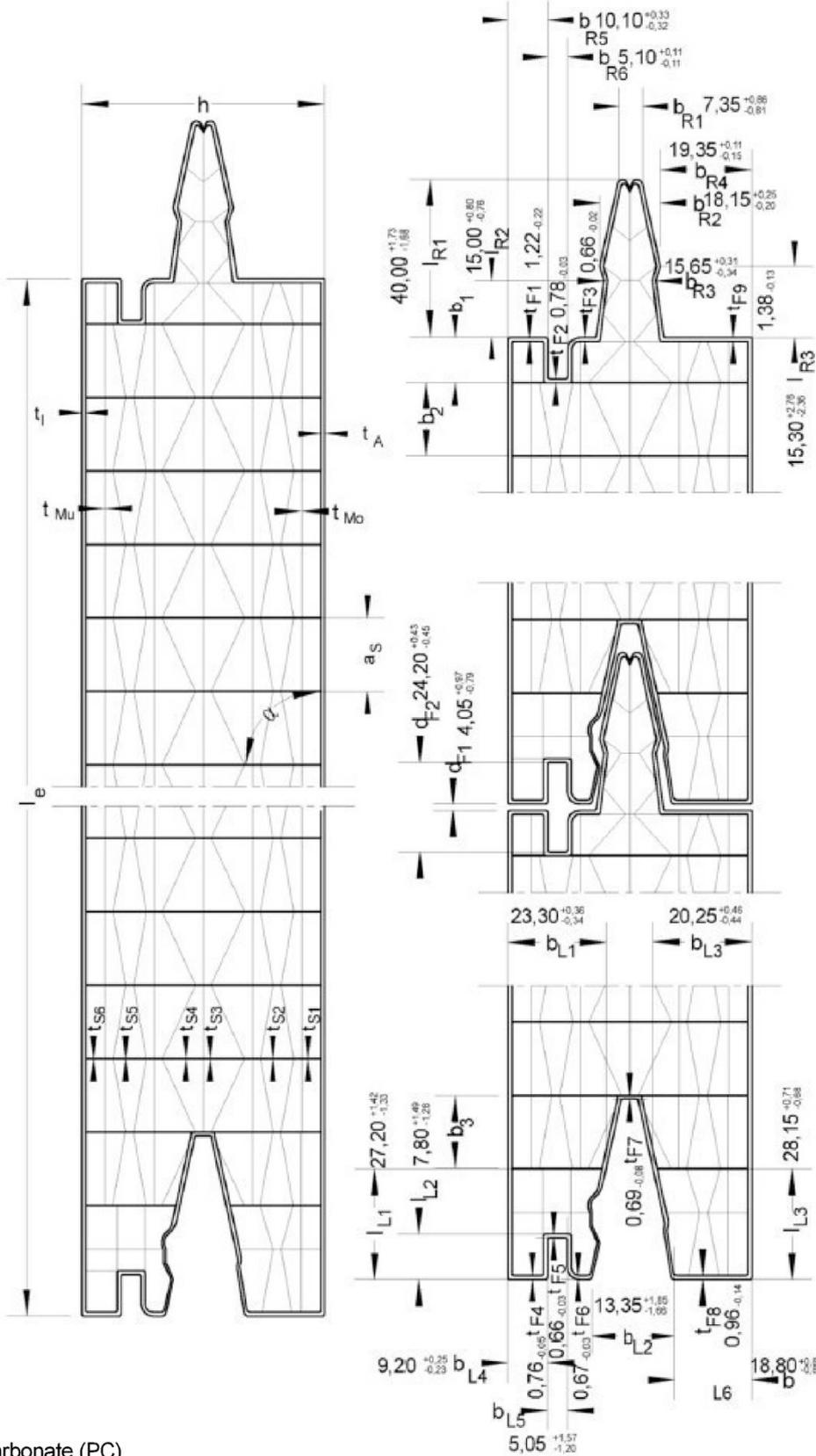
all dimensions in mm

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Sealing profiles 1382 and 643100

Annex A 3.4.2

English translation prepared by DIBt



characteristic dead load: 0,05 kN/m²

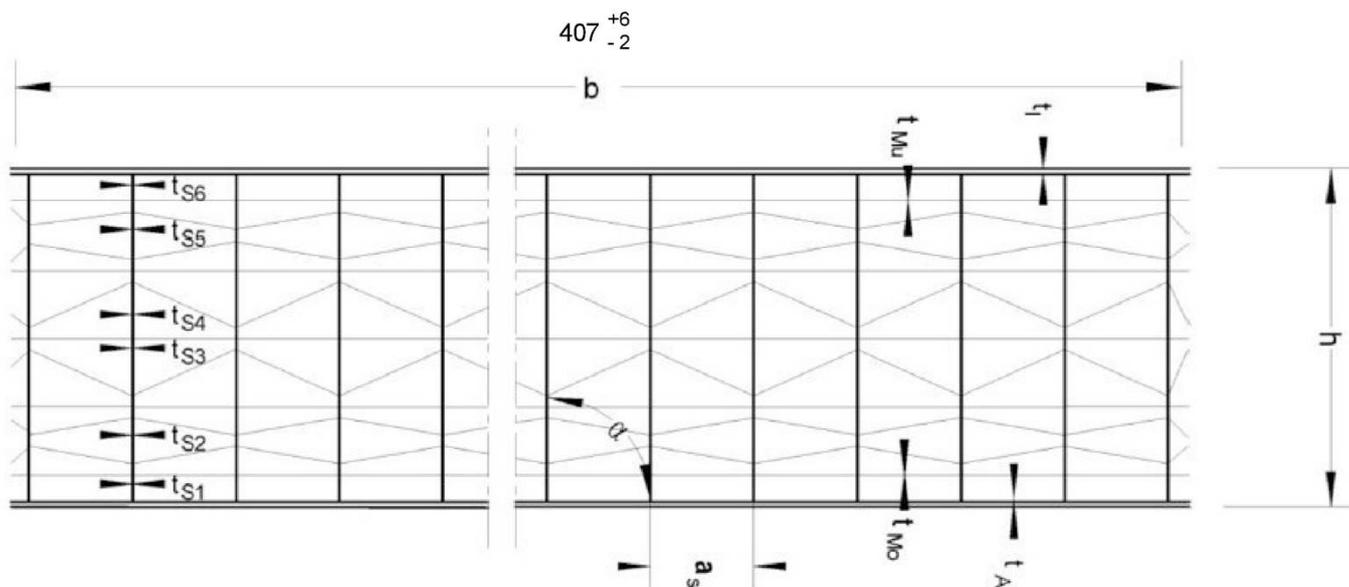
I _{ΔCl}	difference to 90°	weight kg/m	b ₃ mm	b ₂ mm	b ₁ mm	a _s mm	t _{Mu} mm	t _{Mo} mm	t _{S6} mm	t _{S5} mm	t _{S4} mm	t _{S3} mm	t _{S2} mm	t _{S1} mm	t _i mm	t _A mm	h mm	I _e mm	difference		
																			to 90°	≤ 1°	
18,00		2,84	18,00	16,70	12,80	19,15	0,10	0,10	0,56	0,60	0,46	0,36	0,30	0,50	0,84	0,91	60,0	498			
+ 0,33			+ 0,33	+ 0,74	+ 0,26	+ 0,01	- 0,01	- 0,01	- 0,07	- 0,08	- 0,03	- 0,07	- 0,05	- 0,06	- 0,04	- 0,06	± 0,5	+ 6	- 2		

Polycarbonate (PC)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Geometry/ weight per area,
"arcoWall 5613"

Annex A 4.1.1



Minimum performance levels or classes for the sheets in accordance with EN 16153

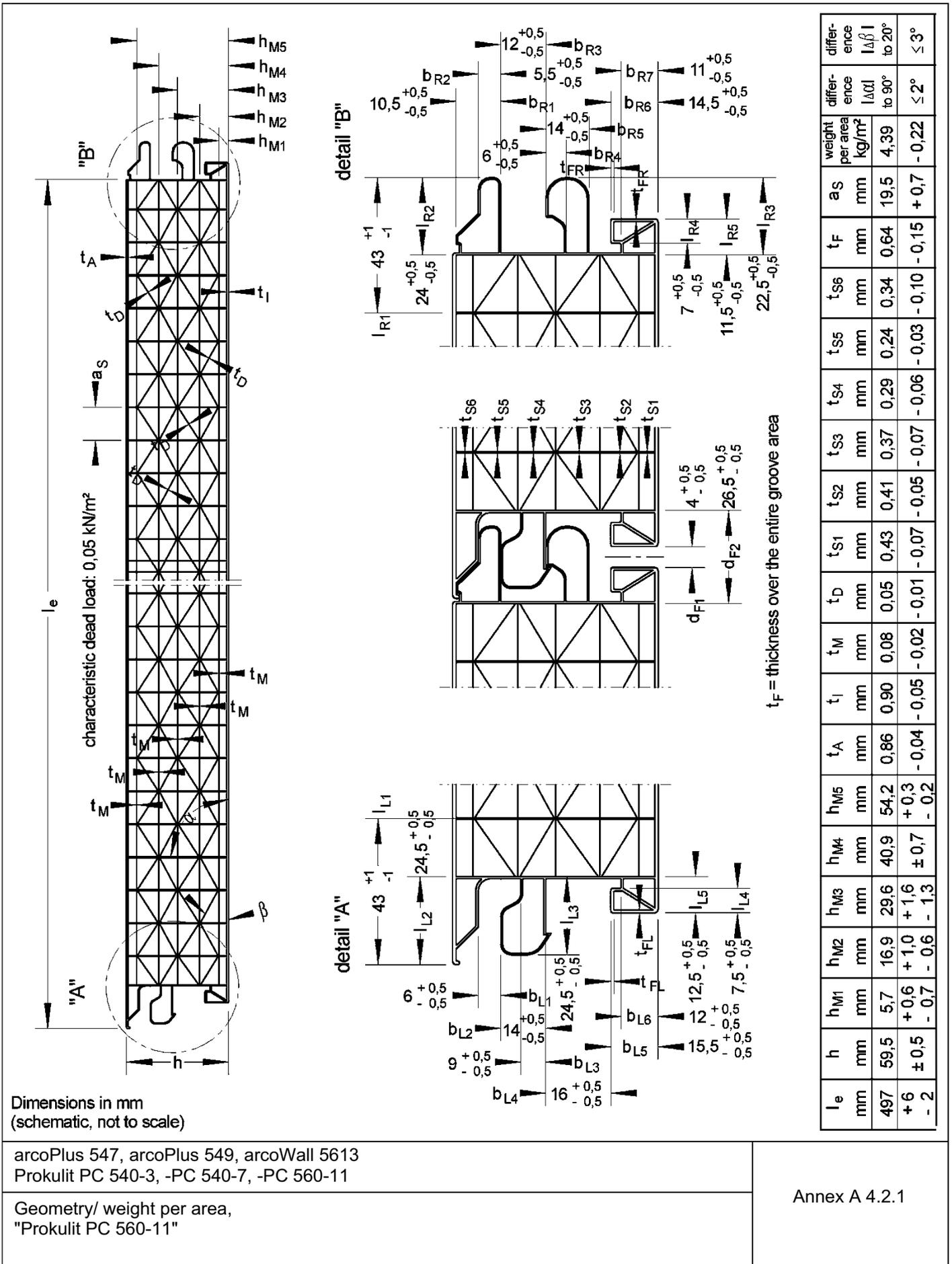
B _x Nm ² /m	U [W/m ² K]		Durability			
	Horizontal	Vertical	Variation of yellowness index	Variation of light transmittance	Variation of deformation flexural modulus	Variation of tensile strength
4050	0,75	0,74	≤ 10 (ΔA)	≤ 5 % (ΔA)	Cu 1	Ku 1

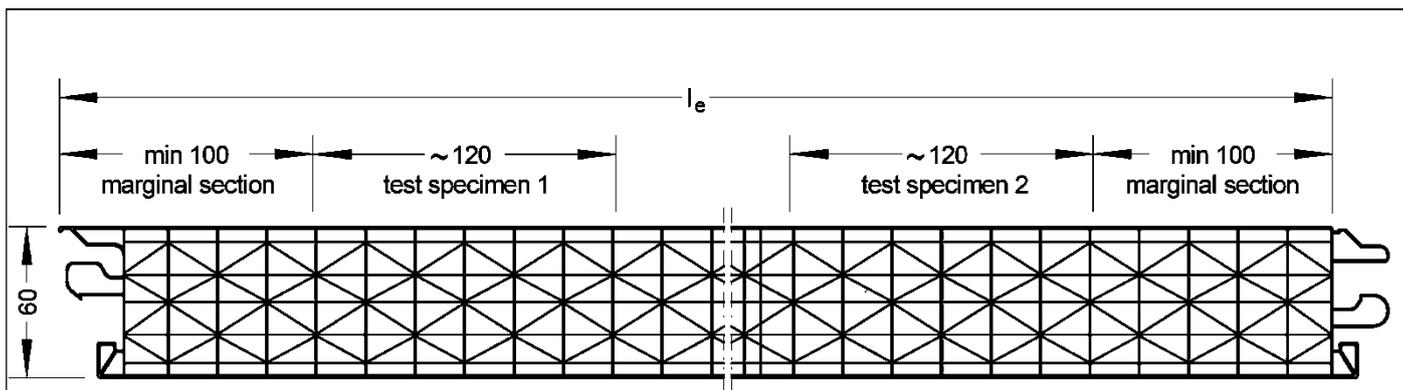
Dimensions in mm
(schematic, not to scale)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

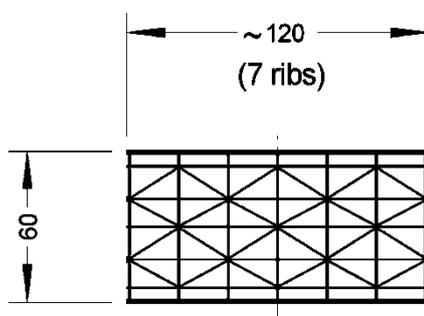
Minimum performance levels or classes for the sheets in accordance with EN 16153
"arcoWall 5613"

Annex A 4.1.2





After cutting off the marginal sections, two test specimen with 7 ribs are prepared out of the rest.



Minimum performance levels or classes for the sheets
(as declared in the DoP in accordance with EN 16153)

B _x Nm ² /m	durability as variation (after ageing)			
	of yellowness index	of the light transmittance	of deformation flexural modulus	of tensile strength
4222	≤ 10 (ΔA)	≤ 5 % (ΔA)	Cu 1	Ku 1

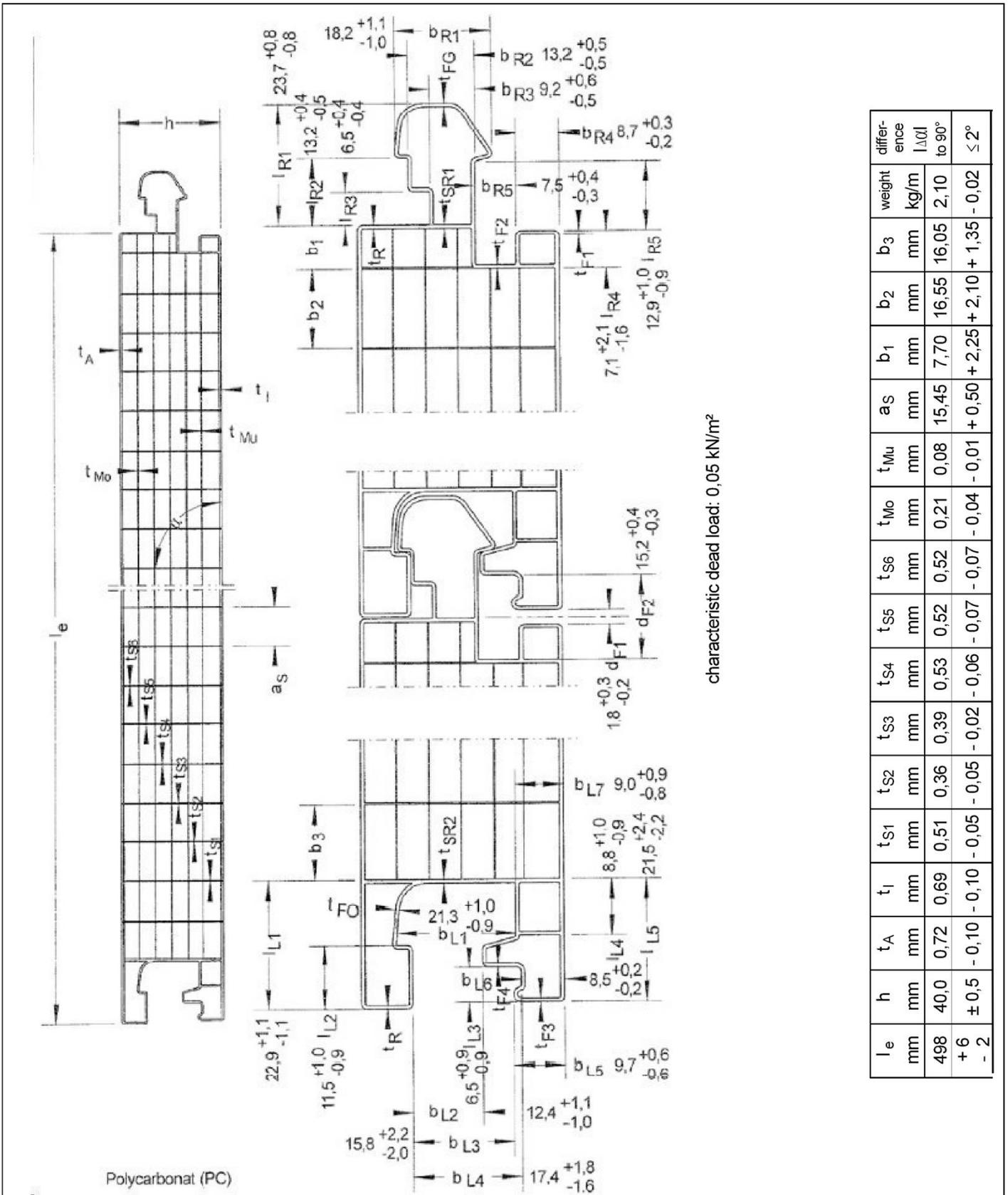
Dimensions in mm
(schematic, not to scale)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Minimum performance levels or classes for the sheets in accordance with EN 16153
"Prokulit PC 560-11"

Annex A 4.2.2

English translation prepared by DIBt

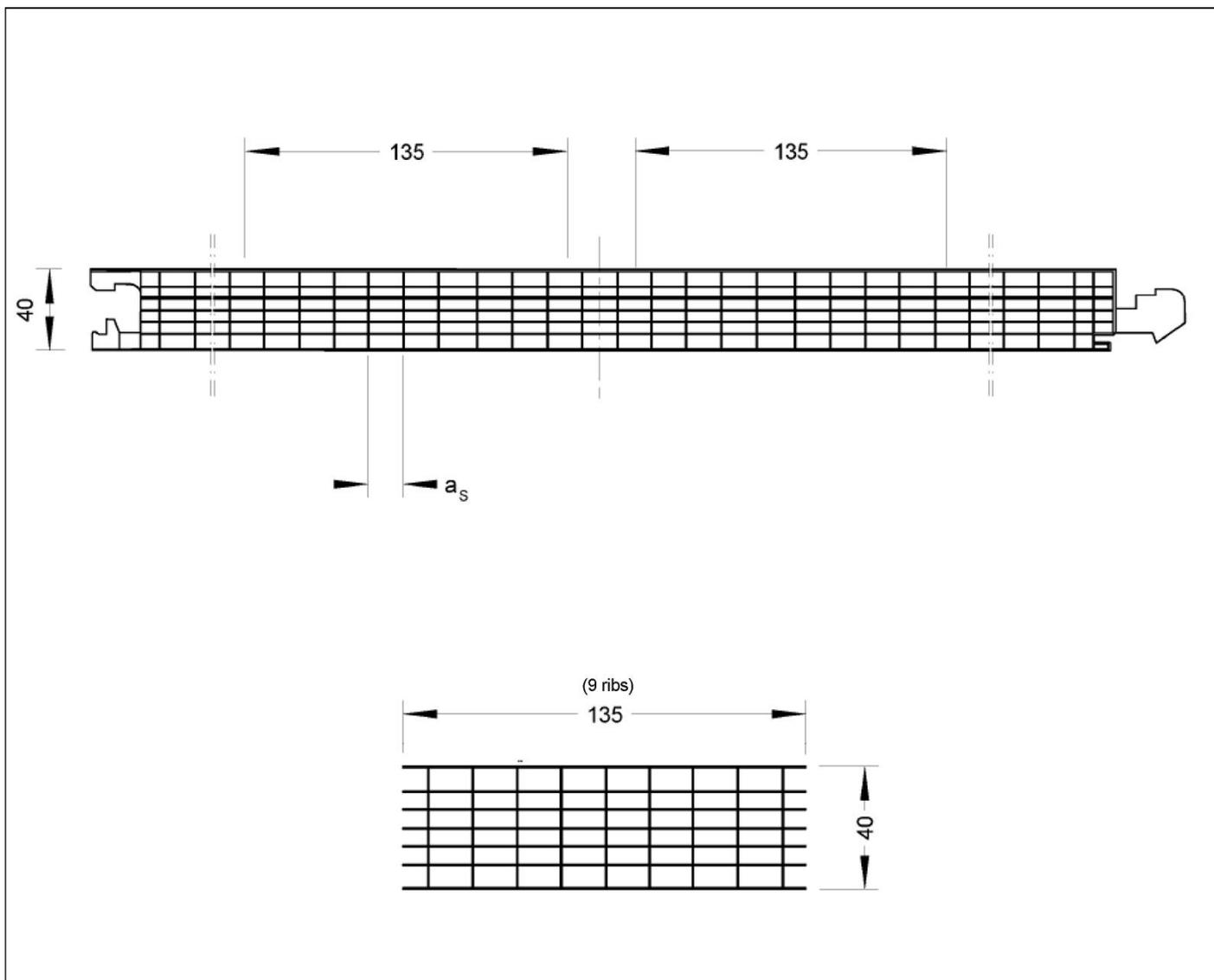


Parameter	Value	Tolerance	Weight (kg/m)	Difference in angle (°)
l_e	498	+6	2,10	
h	40,0	± 0,5	2,10	
t_A	0,72	- 0,10	16,05	
t_I	0,69	- 0,05	16,55	
t_{S1}	0,51	- 0,05	2,25	
t_{S2}	0,36	- 0,05	2,10	
t_{S3}	0,39	- 0,02	1,35	
t_{S4}	0,53	- 0,06	0,50	
t_{S5}	0,52	- 0,07	0,01	
t_{S6}	0,52	- 0,07	- 0,04	
t_{Mo}	0,21	- 0,04	0,08	
t_{Mu}	0,08	- 0,01	0,01	
a_S	15,45	+ 0,50	2,10	
b_1	7,70	+ 2,25	16,05	
b_2	16,55	+ 2,10	16,05	
b_3	16,05	+ 1,35	2,10	
Weight	2,10	- 0,02		

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Geometry/ weight per area,
"arcoPlus 547"

Annex A 4.3.1



Minimum performance levels or classes for the sheets
(as declared in the DoP in accordance with EN 16153)

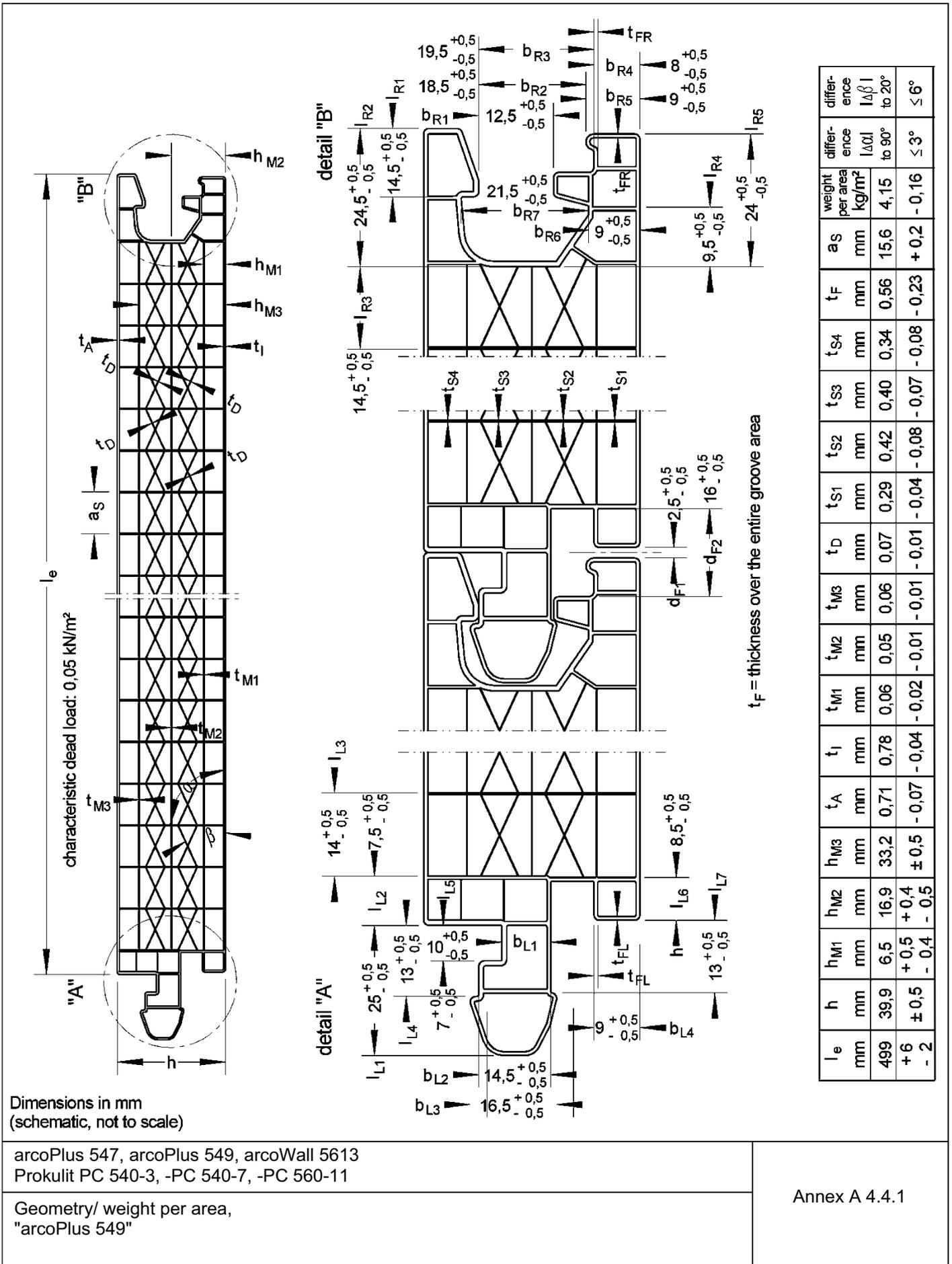
B_x	durability as variation (after ageing)			
Nm ² /m	of yellowness index	of the light transmittance	of deformation flexural modulus	of tensile strength
1522	≤ 10 (ΔA)	≤ 5 % (ΔA)	Cu 1	Ku 1

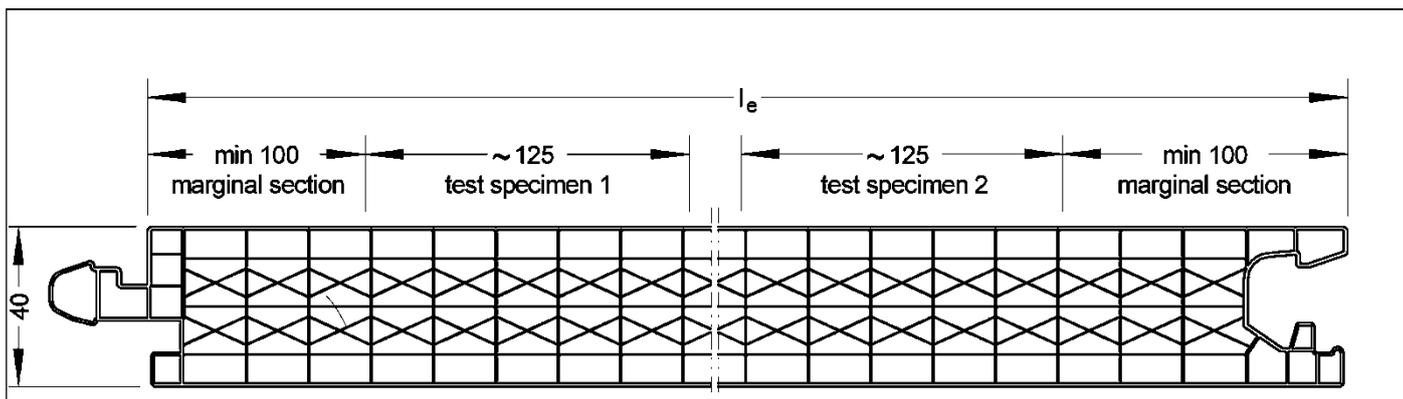
Dimensions in mm
(schematic, not to scale)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

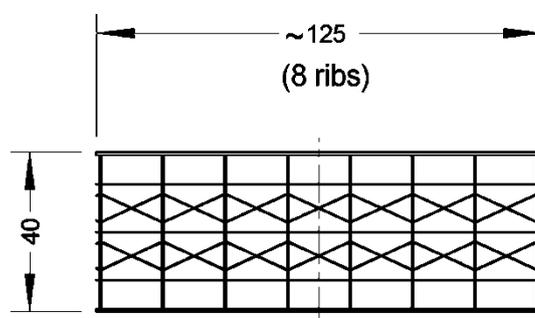
Minimum performance levels or classes for the sheets in accordance with EN 16153
"arcoPlus 547"

Annex A 4.3.2





After cutting off the marginal sections, two test specimen with 8 ribs are prepared out of the rest.



Minimum performance levels or classes for the sheets
(as declared in the DoP in accordance with EN 16153)

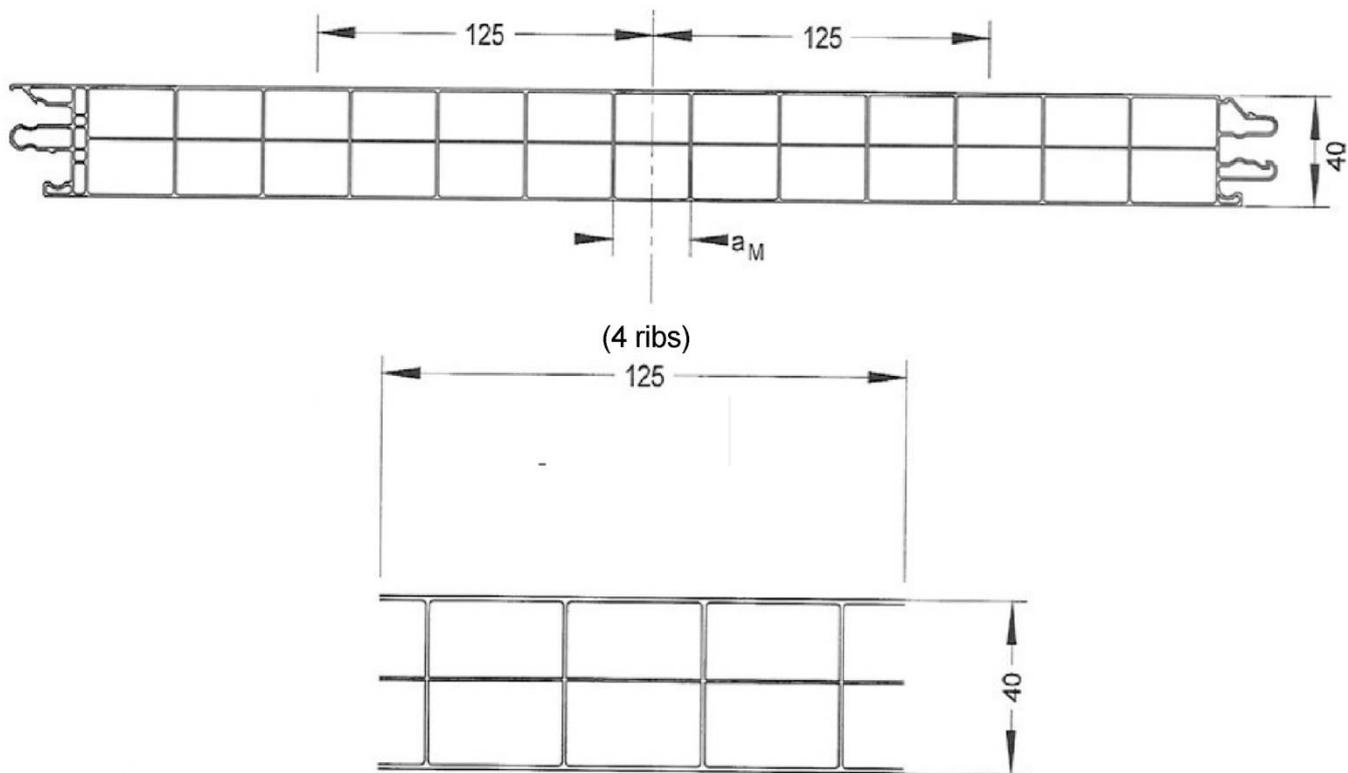
B_x	durability as variation (after ageing)				
	Nm ² /m	of yellowness index	of the light transmittance	of deformation flexural modulus	of tensile strength
1722	≤ 10 (ΔA)	≤ 5 % (ΔA)	Cu 1	Ku 1	

Dimensions in mm
(schematic, not to scale)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Minimum performance levels or classes for the sheets in accordance with EN 16153
"arcoPlus 549"

Annex A 4.4.2



Minimum performance levels or classes for the sheets
(as declared in the DoP in accordance with EN 16153)

B _x Nm ² /m	durability as variation (after ageing)			
	of yellowness index	of the light transmittance	of deformation flexural modulus	of tensile strength
1962	≤ 10 (ΔA)	≤ 5 % (ΔA)	Cu 1	Ku 1

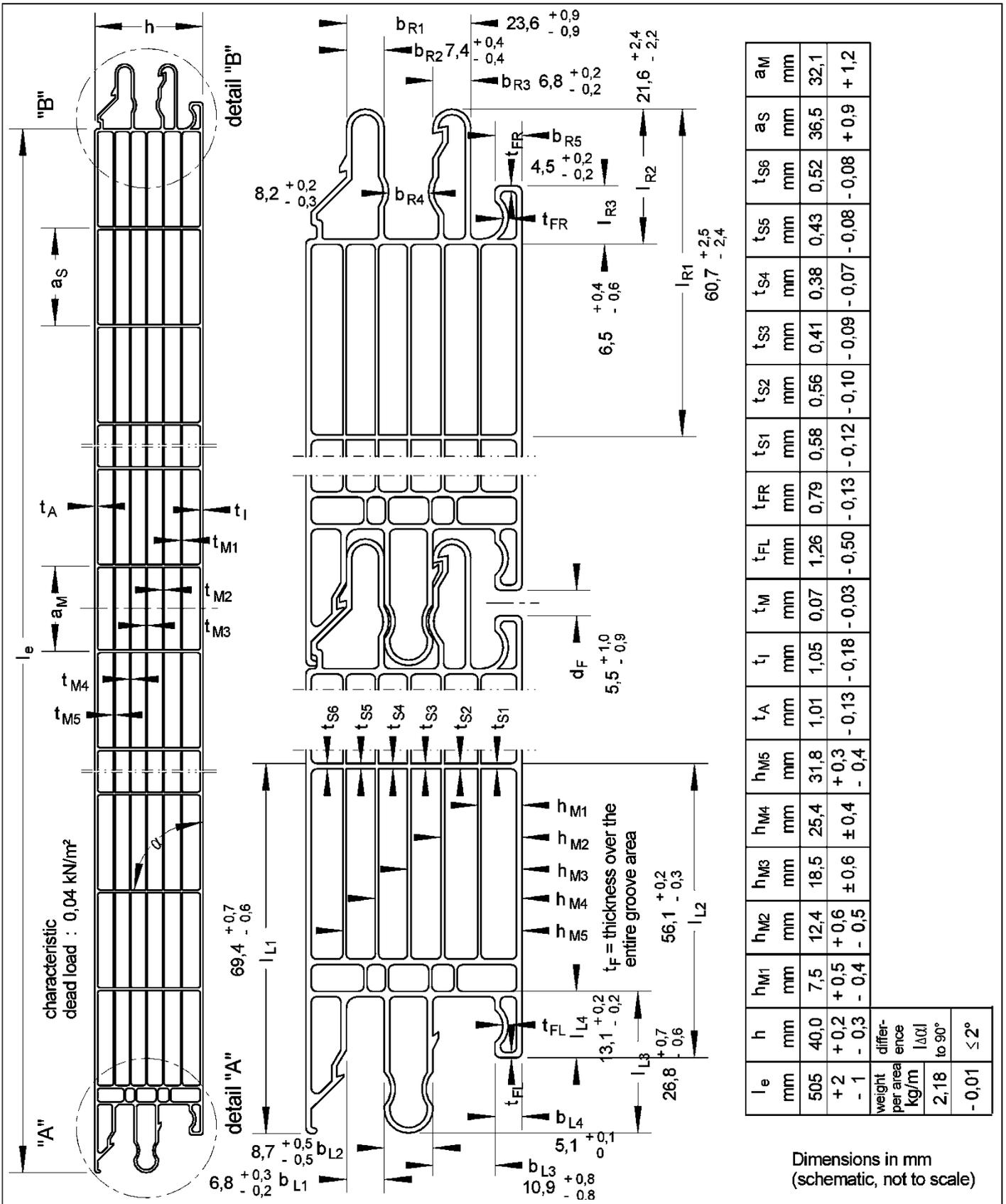
Dimensions in mm
(schematic, not to scale)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Minimum performance levels or classes for the sheets in accordance with EN 16153
"Prokulit PC 540-3"

Annex A 4.5.2

English translation prepared by DIBt

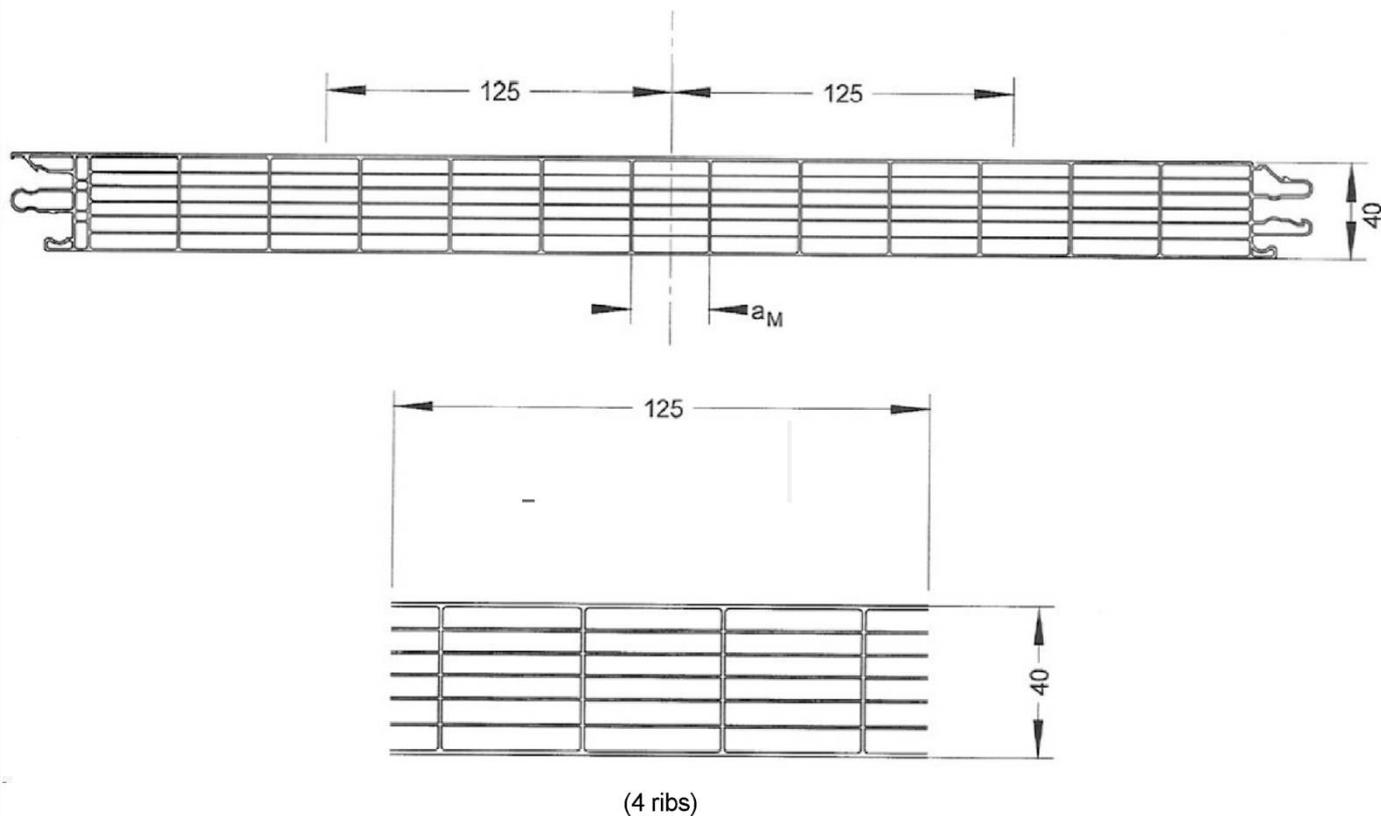


a_M	mm	32,1
a_S	mm	36,5
t_{S6}	mm	0,52
t_{S5}	mm	0,43
t_{S4}	mm	0,38
t_{S3}	mm	0,41
t_{S2}	mm	0,56
t_{S1}	mm	0,58
t_{FR}	mm	0,79
t_{FL}	mm	1,26
t_M	mm	0,07
t_I	mm	1,05
t_A	mm	1,01
h_{M5}	mm	31,8
h_{M4}	mm	25,4
h_{M3}	mm	18,5
h_{M2}	mm	12,4
h_{M1}	mm	7,5
h	mm	40,0
l_e	mm	505
weight per area	kg/m	2,18
difference $ \Delta\alpha $	to 90°	$\leq 2^\circ$

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Geometry/ weight per area,
"Prokulit PC 540-7"

Annex A 4.6.1



Minimum performance levels or classes for the sheets
(as declared in the DoP in accordance with EN 16153)

B _x	durability as variation (after ageing)			
	Nm ² /m	of yellowness index	of the light transmittance	of deformation flexural modulus
1707	≤ 10 (ΔA)	≤ 5 % (ΔA)	Cu 1	Ku 1

Dimensions in mm
(schematic, not to scale)

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Minimum performance levels or classes for the sheets in accordance with EN 16153
"Prokulit PC 540-7"

Annex A 4.6.2

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Annex B

Provisions for design and dimensioning

Dimensioning, installation and execution of the translucent roof and wall kit shall be in compliance with the national technical specifications. These differ in terms of their content as well as their status within the legal frameworks of the member states.

If no national provisions exist, dimensioning can be carried out in accordance with Annexes B 1 and B 2. In case the roof system, in particular the multi-wall sheets are systematically in contact with chemicals, the resistance to these substances shall be checked. Thereby, high concentrations of chemicals in the surrounding air shall be also considered.

Installation, packaging, transport, storage as well as use, maintenance and repair shall be carried out in accordance with the manufacturer's instructions (extract see Annex C).

B 1 Load-bearing capacity and serviceability of the covering

B 1.1 General

The design and arrangement of the multi-wall sheets as described in Section 1.1.1 in the translucent roof and wall kit shall correspond to the specifications given in Annexes A 1 to A 4. The specifications given in Section 2 shall be complied with.

The stability shall be verified for the ultimate limit state (ULS)

$$E_d \leq R_d$$

and for the serviceability limit state (SLS)

$$E_d \leq C_d$$

E_d : design value of the action

R_d : design value of the structural resistance for verification of the ultimate limit state

C_d : design value of the structural resistance for verification of the serviceability limit state

The multi-wall sheets shall not be used for bracing the aluminium structure.

The multi-wall sheets shall not be walked on.

Assessment pertaining to fall-through protection is not included in this ETA.

The verification of aluminium covering profiles and lift anchors, their fixings as well as the verification of substructure is not included in this ETA.

B 1.2 Design values for actions, E_d

The design values for the actions shall be determined in accordance with EN 1991 + EN 1990.

The action resulting from the dead weight of the multi-wall sheets may be neglected for the structural design calculation in accordance with Section B.1.3 of the roof and wall kit. Live loads are not permitted.

The design value of the action results from the characteristic values of the actions taking into account the partial safety factors γ_F , the coefficients ψ and the factors for the effects of the duration of load action C_t .

For the wind and temperature effects to be considered in the load case "summer" the Ψ coefficient defined in EN 1990 may be applied. In design situations where the wind is applied as the dominant variable action, the Ψ coefficient may be considered in the design value of the structural resistance.

The actions E_k shall be increased through multiplication by the factors C_t in consideration of the action duration and based on load.

Load action	Duration of load action	$K_t = C_t$
Wind	very short	1.00
Snow as an extraordinary snow load (e.g. in the low-lying plains of northern Germany)	short: up to one week	1.15
Snow	medium: up to three months	1.20
Dead Load	constantly	1.50

B 1.3 Design values for structural resistance R_d (ULS) and C_d (SLS)

The design values for structural resistance R_d and C_d result from the characteristic value of structural resistance R_k and C_k in consideration of the material safety factor γ_M , the factor taking into account the effects of media C_u and the temperature factor C_θ as follows:

$$R_d = \frac{R_k}{\gamma_{MR} \cdot C_u \cdot C_\theta} \quad C_d = \frac{R_k}{\gamma_{MC} \cdot C_u \cdot C_\theta}$$

The following factors shall be applied:

Factor taking into account the effects of media and ageing C_u		1,10
Temperature factor C_θ	summer	1,20
	winter	1,00

The following material safety factors shall be applied as a function of the consequence class (CC) in accordance with EN 1990:

Consequence class	Material safety factor γ_{MR}	Material safety factor γ_{MC}
CC 1	1,25	1,09
CC 2	1,30	1,13

In design situations where wind is considered to be the dominant variable action, the reduction in structural resistance due to temperature may be reduced by means of the Ψ coefficient for the summer load case. For this design situation a reduction factor for temperature of $C_\theta = 1 + \Psi \cdot (C_\theta - 1.0)$ may be applied.

The characteristic values for structural resistance R_k shall be taken from the tables in The Annexes B 2.1.1 to B 2.2.7 for the given multi-wall sheets and direction of loading.

– Single-span system

The load direction "negative" and "positive" as well as the span l_F are defined in the Annexes A 1.1 and A 2.1.1 to A 2.2.14. The characteristic values for structural resistance R_k and C_k related to the span l_F shall be taken from the tables in The Annexes B 2.1.1 to B 2.1.6 for the given multi-wall sheets and direction of loading.

– Multi-span system

The load direction "negative" and "positive" as well as the span l_F is given in the Annexes A 1.2 and A 2.1.1 to A 2.2.14. The characteristic values for structural resistance R_k and C_k are given as interaction between support moment and force at the intermediate support and shall be taken from the tables in The Annexes B 2.2.1 to B 2.2.7 for the given multi-wall sheets and direction of loading.

The load at intermediate support is decisive.

For load direction "negative" the factor C_u can be set to 1,0. Therefore direct sunlight on the inside of the multi-wall sheets must be excluded.

The intermediate supports for fixing the lift anchors must have the minimum width b_A specified in the Annexes A 2.1 and A 2.2. The minimum span l_F as given in Annex A 1.2 shall be 0,50 m.

For the determination of the respective span, the centre of the lift anchor is decisive for the load direction "negative" and the centre of the intermediate support for the load direction "positive".

– Local buckling

When the characteristic values are fully utilised, reversible local buckling may occur in the pressed outer wall of the sheets without affecting the load-bearing capacity.

B 1.4 Limiting of deflection

The limiting of deflection shall be assessed. in particular case e.g. to avoid collection of water. The design value for structural resistance C_d for deflection is given by the design value of limiting of deflection $f_{R,d}^{GZG}$. The deflection is to be carried out for uniformly distributed loads assuming a linear-elastic material behavior as follows:

$$\frac{f_{E,d}^{GZG}}{f_{R,d}^{GZG}} \leq 1,0$$

$f_{E,d}^{GZG}$: design value of deflection as a result of E_d

$f_{R,d}^{GZG}$: design value of deflection limit

For calculation the design value of deflection as a result of E_d the following bending stiffness (B) of the multi wall sheets shall be applied:

Multi wall sheet	Annex	B (Nm ² /m)
arcoWall 5613	A 4.1.1	4550
Prokulit PC 560-11	A 4.2.1	5100
arcoPlus 547	A 4.3.1	1550
arcoPlus 549	A 4.4.1	1600
Prokulit PC 540-3	A 4.5.1	1900
Prokulit PC 540-7	A 4.6.1	1600

The characteristic values for dead load of multi wall sheets shall be taken from the Annex A.4.

Restraint stresses are to be compensated by constructive solutions. The changes in length due to temperature must be assessed on a case-by-case basis. The following coefficient of thermal expansion is to be used for the multi-wall sheets:

$$\alpha_T = 65 \cdot 10^{-6} \text{ K}^{-1}$$

The design values for limiting of deflection results as follows:

$$f_{R,d}^{GZG} = \frac{f_{R,k}}{C_u \cdot C_\theta \cdot \gamma_{MC}}$$

The limit of deflection ($f_{R,k}$) is to be determined that a proper function is not impaired, for example, no water sacks form or water penetrates.

The factors given in Section B 1.2 und B 1.3 shall be applied.

B 1.5 Load-bearing capacity of the aluminium covering profiles with plastic insulation bar

The fixing distance of the aluminium covering profiles with plastic insulation bar on the substructure is approx. 350 mm, shear stress from bending must be excluded.

The structural stability against transverse tensile failure is to prove:

$$\left(\frac{\sigma_{xd}}{\frac{Q_k}{\gamma_M \cdot A}} \right) \leq 1$$

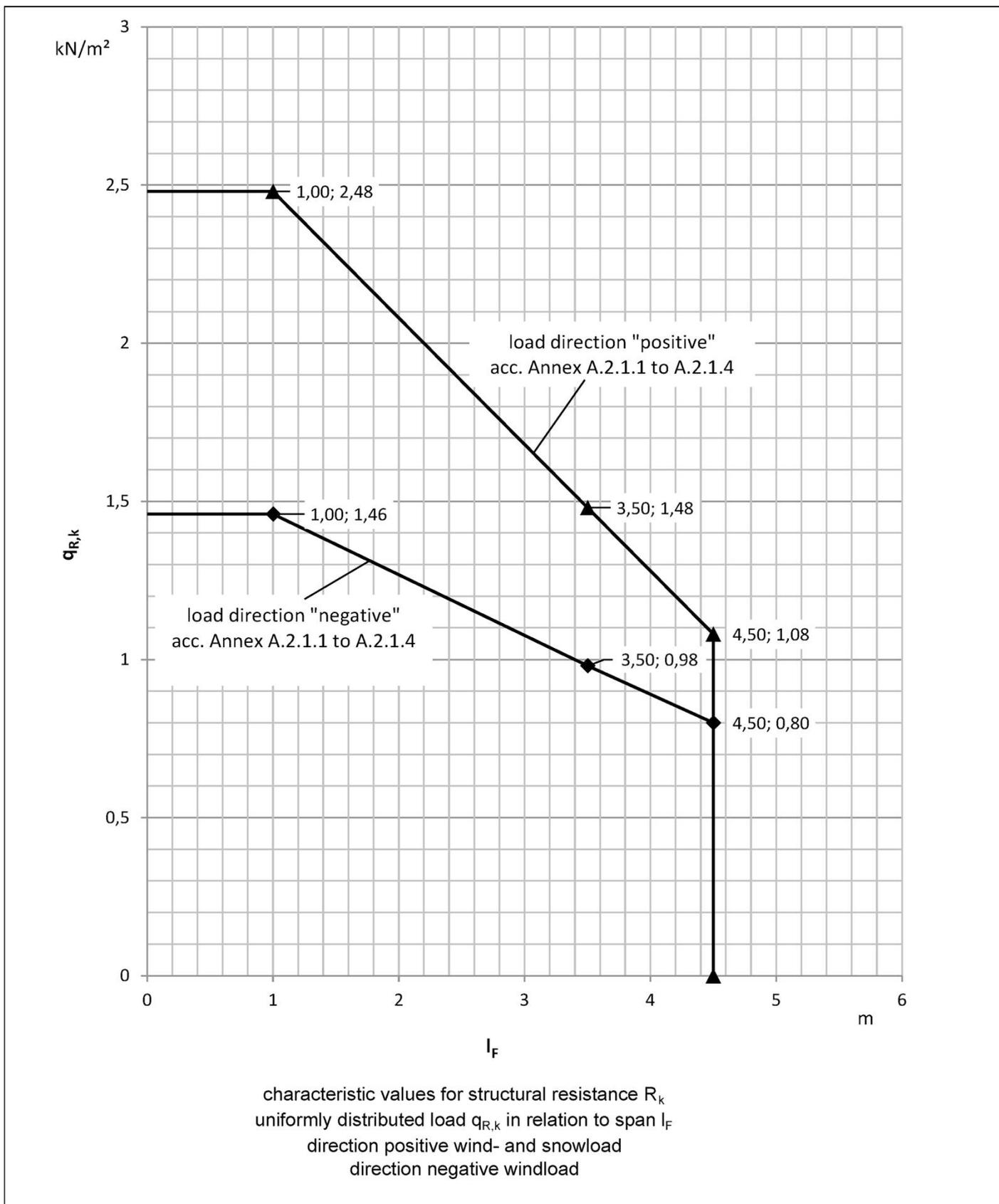
σ_{xd} : design value of normal stress as a result of wind load.

The eccentric load application of the multi-wall sheets regarding the position of the plastic insulating bars must be taken into account.

γ_m : 1,30 - material safety factor

A: 1,73 - factor taking into account the effects of temperature and ageing

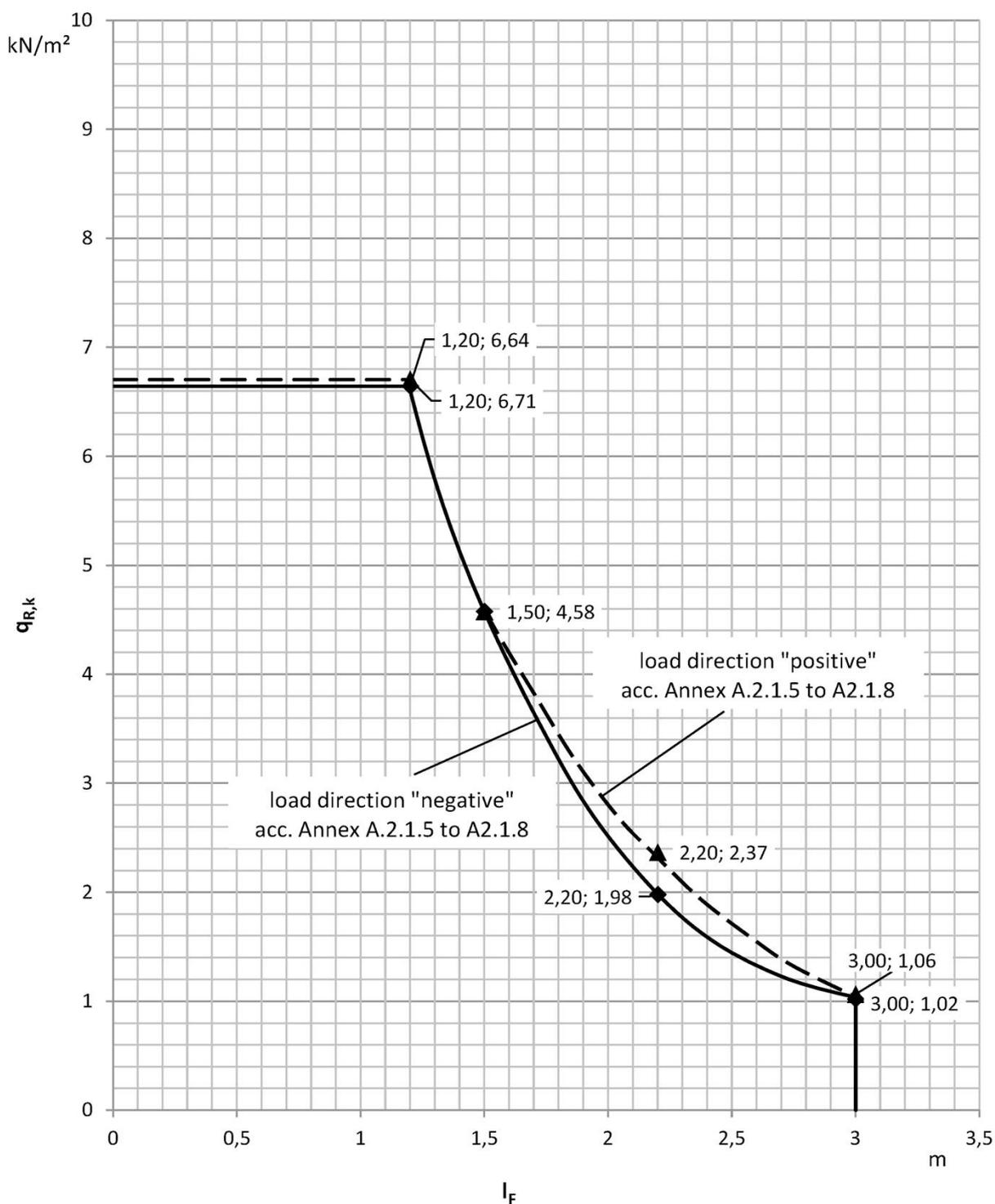
Q_k : 69,2 N/mm - characteristic value of tensile strength of the insulation bar's connection



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
single-span system (acc. to Annex A 2.1.1 to A 2.1.4)
"arcoWall 5613"

Annex B 2.1.1

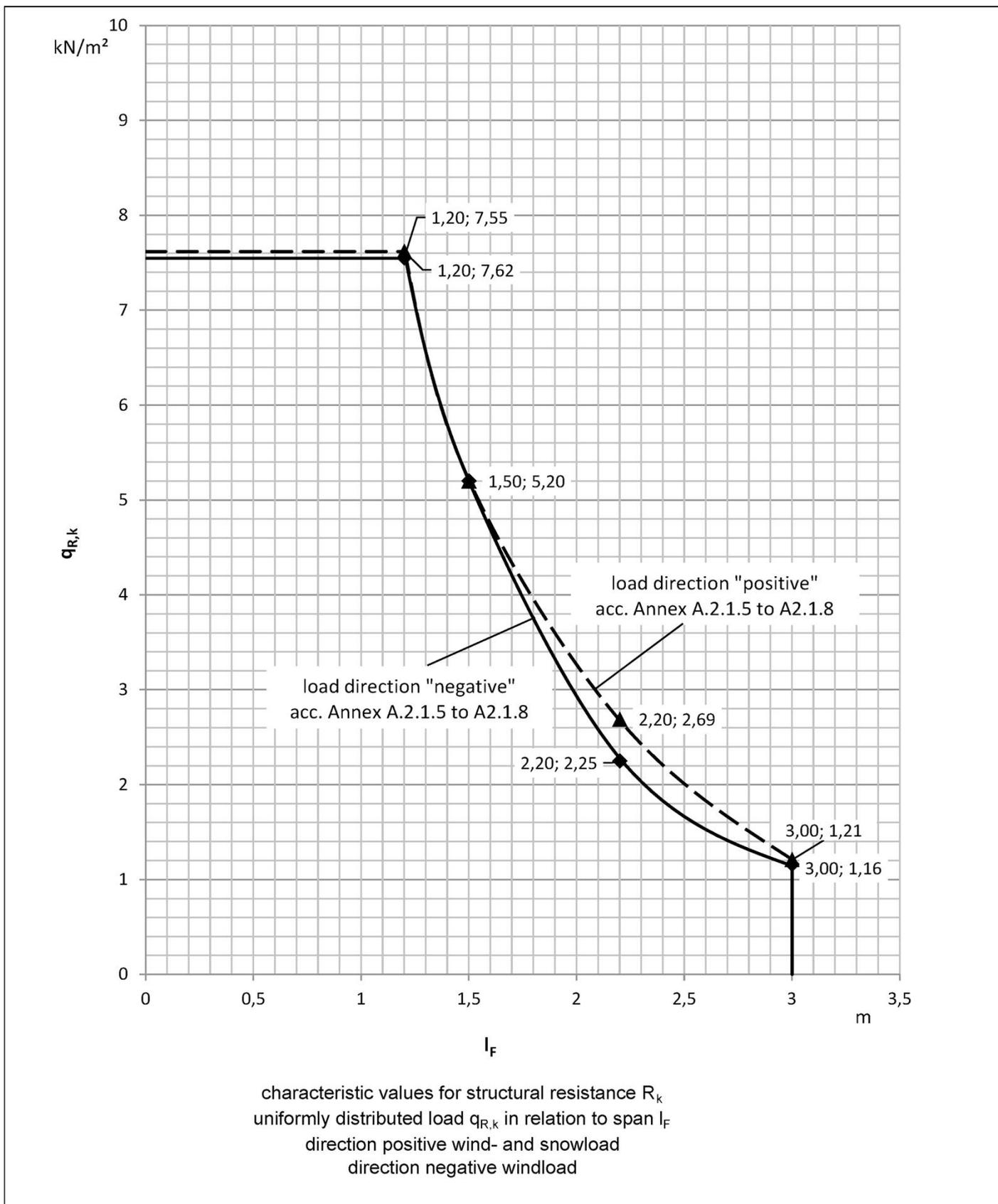


characteristic values for structural resistance R_k
uniformly distributed load $q_{R,k}$ in relation to span l_F
direction positive wind- and snowload
direction negative windload

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
single-span system (acc. to Annex A 2.1.5 to A 2.1.8)
"arcoWall 5613"

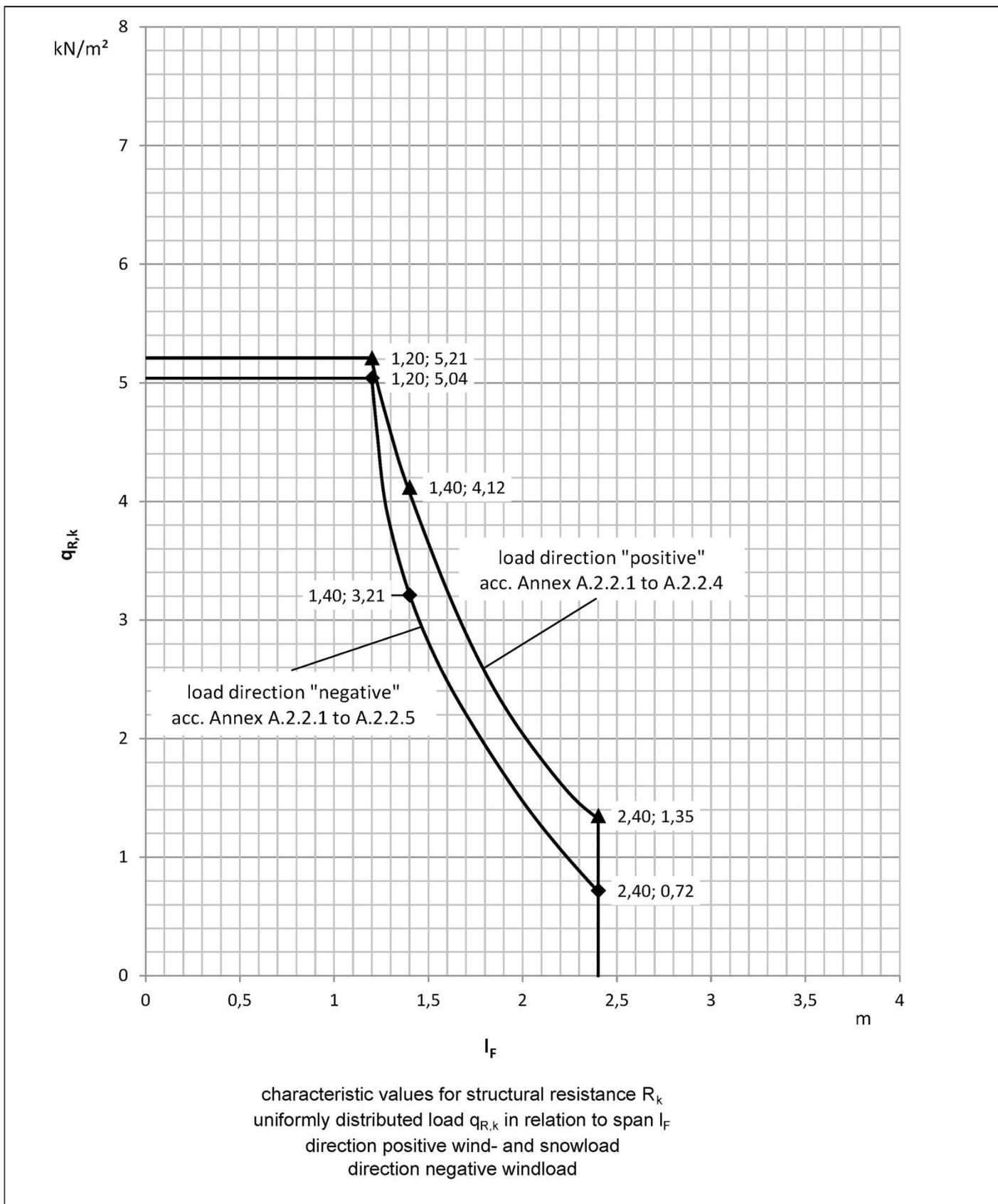
Annex B 2.1.2



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
single-span system
"Prokulit PC 560-11"

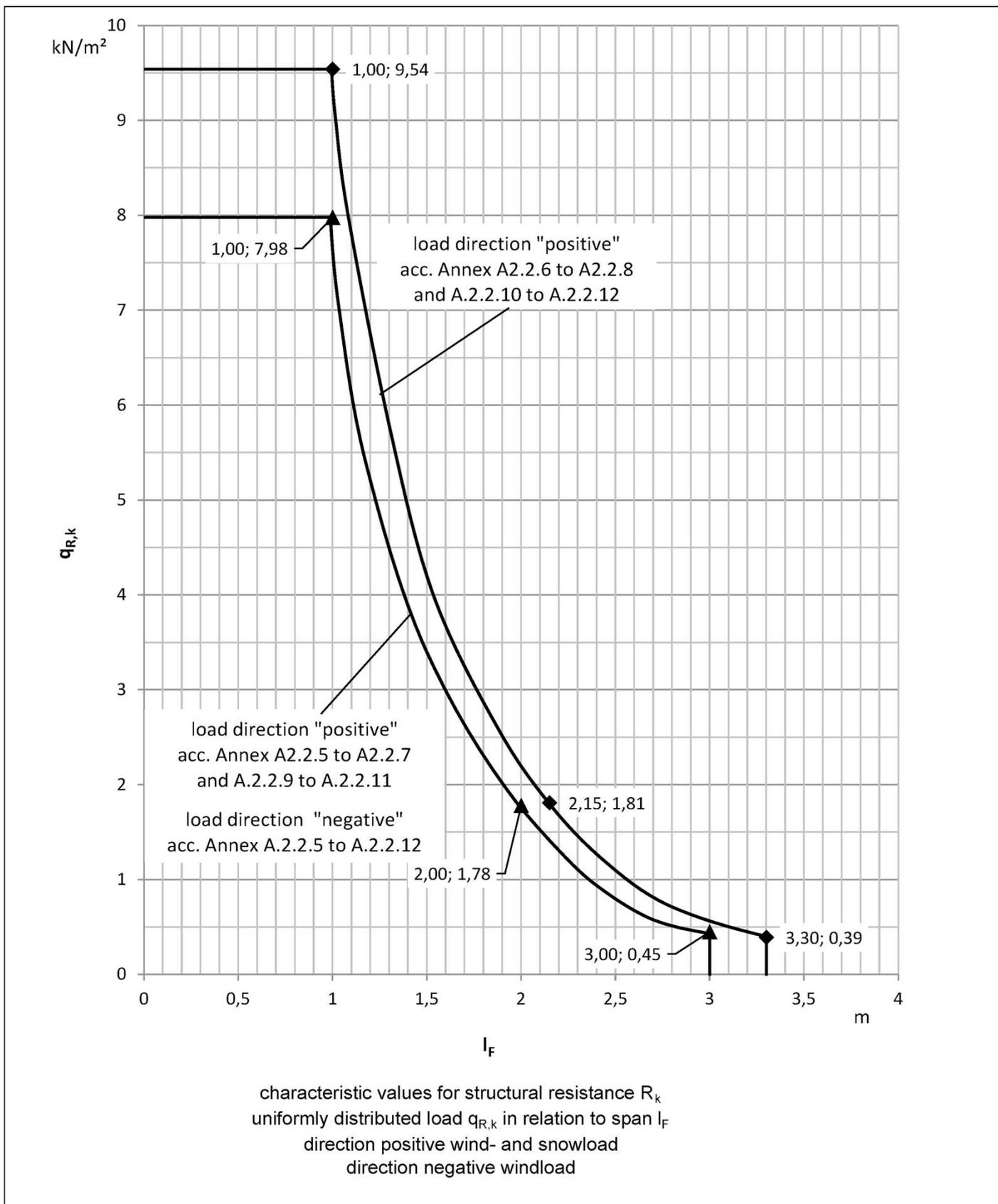
Annex B 2.1.3



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
single-span system
"arcoPlus 547" and "arcoPlus 549"

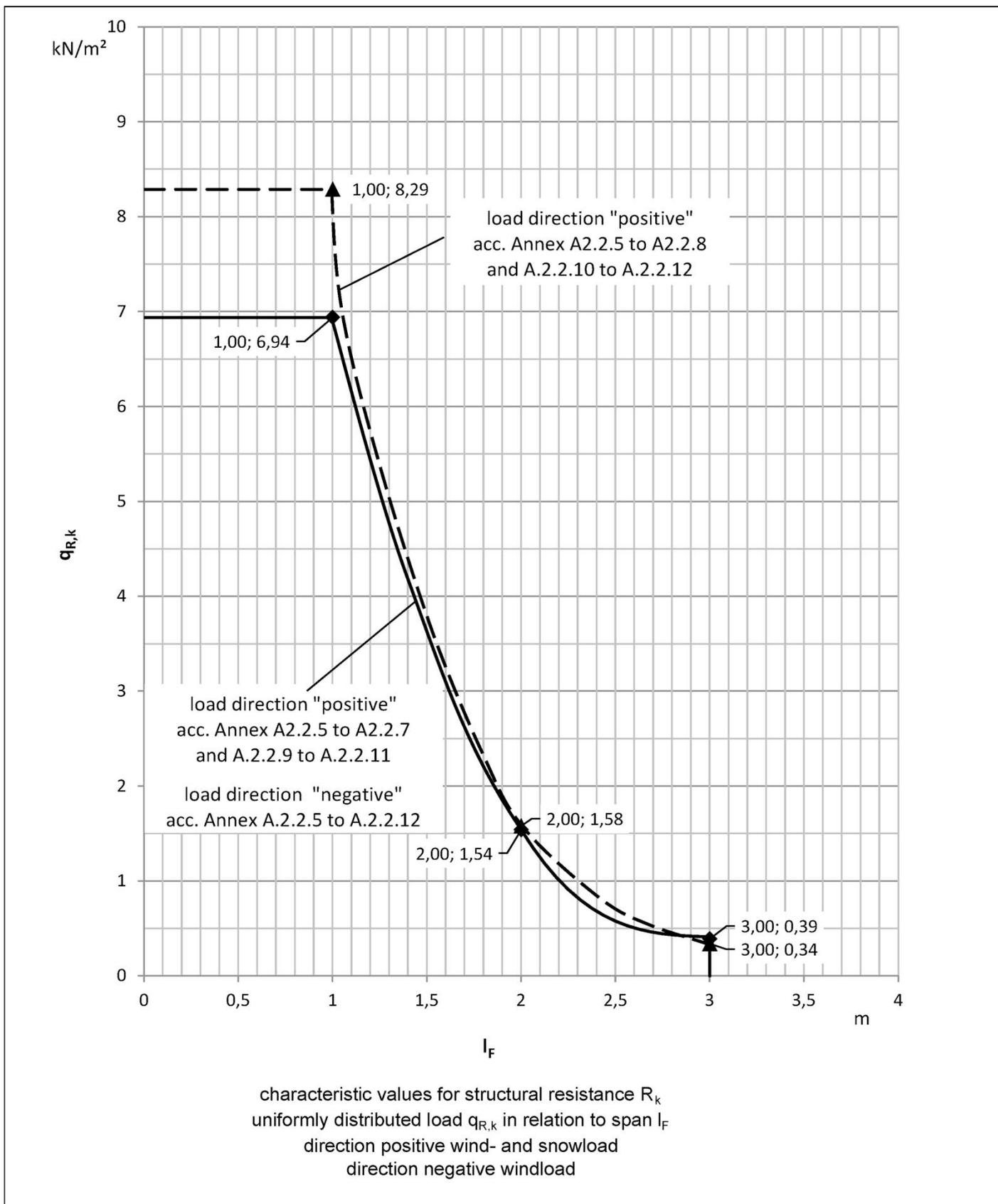
Annex B 2.1.4



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
single-span system
"Prokulit PC 540-3"

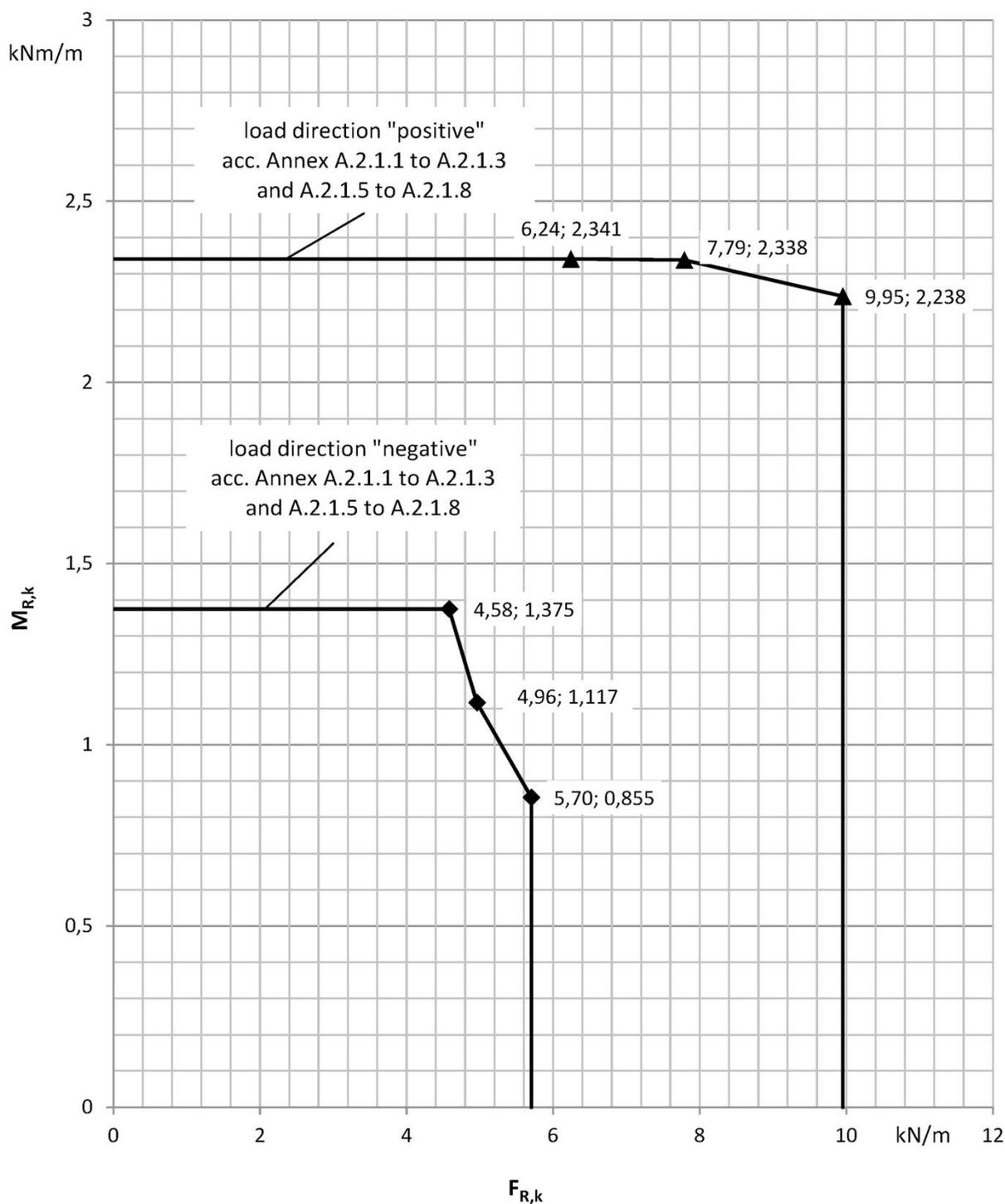
Annex B 2.1.5



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
single-span system
"Prokulit PC 540-7"

Annex B 2.1.6

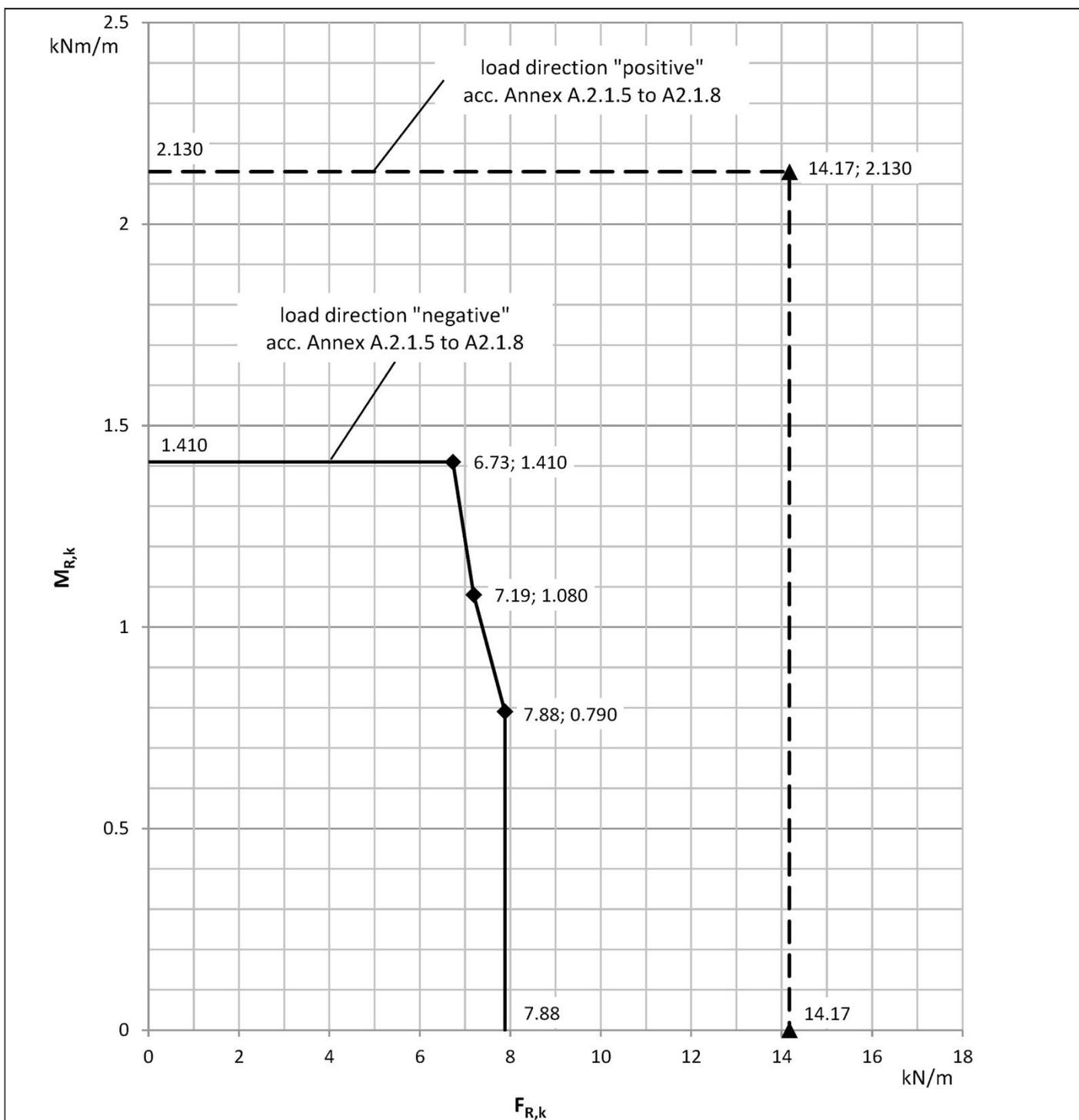


characteristic values for structural resistance R_k
interaction between support moment $M_{R,k}$ and support force $F_{R,k}$
as a result from windload
direction positive wind- and snowload
direction negative windload

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
multi-span system
"arcoWall 5613 F60" and "arcoWall 5613 F120"

Annex B 2.2.1

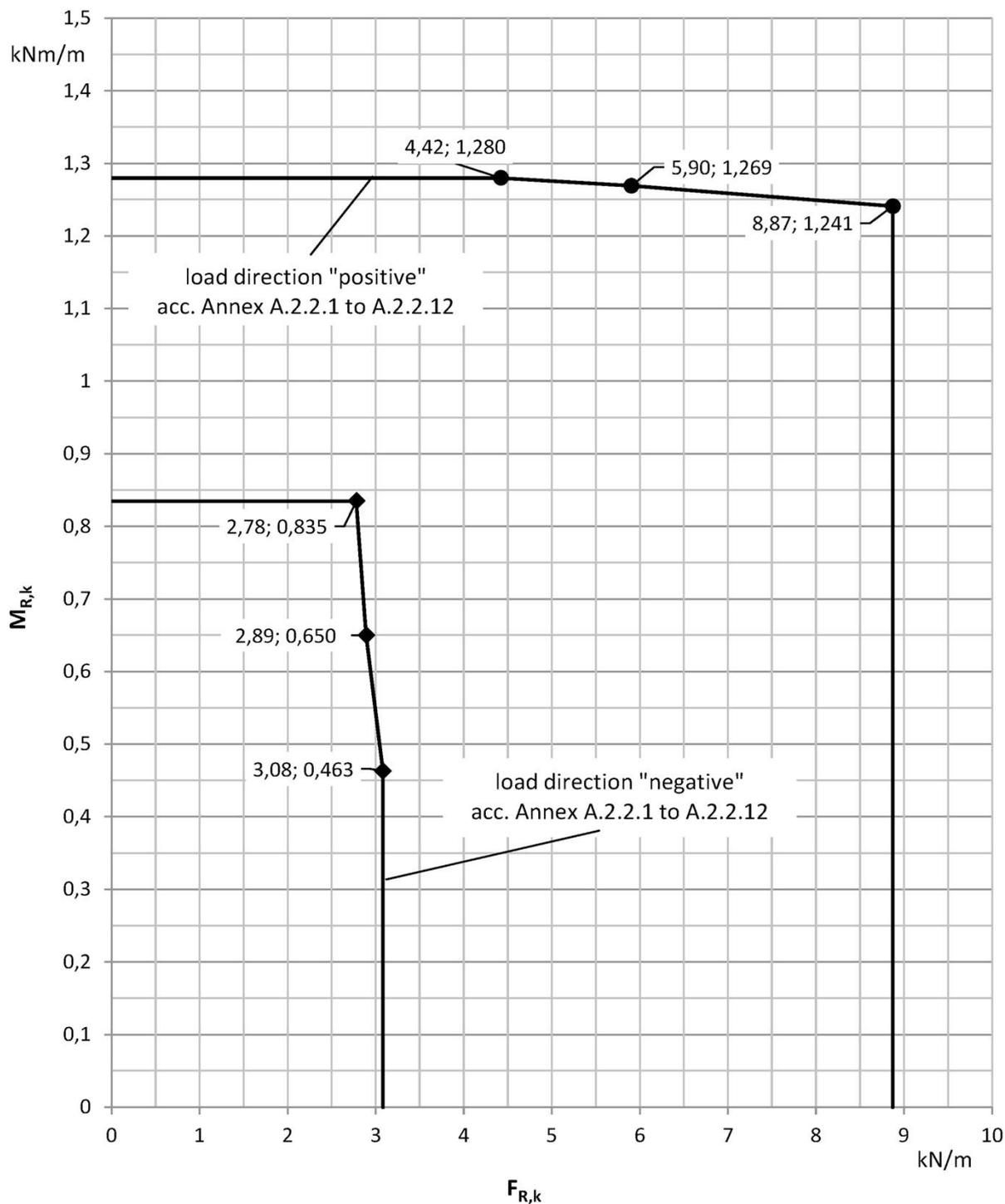


characteristic values for structural resistance R_k
interaction between support moment $M_{R,k}$ and support force $F_{R,k}$
as a result from windload
direction positive wind- and snowload
direction negative windload

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
multi-span system
"Prokulit PC 560-11 F120"

Annex B 2.2.2

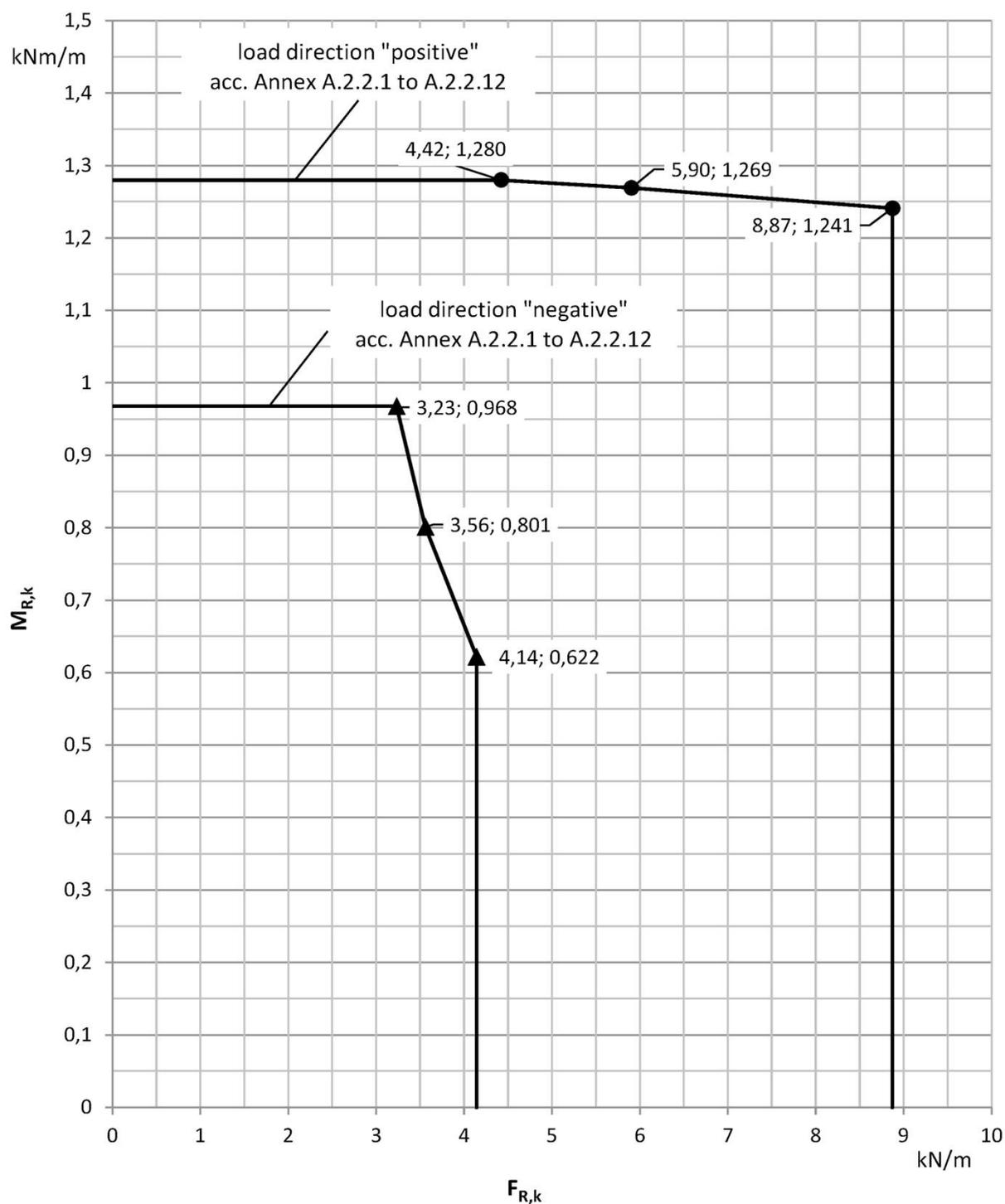


characteristic values for structural resistance R_k
interaction between support moment $M_{R,k}$ and support force $F_{R,k}$
as a result from windload
direction positive wind- and snowload
direction negative windload

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
multi-span system
"arcoPlus 547 F60" and "arcoPlus 549 F60"

Annex B 2.2.3

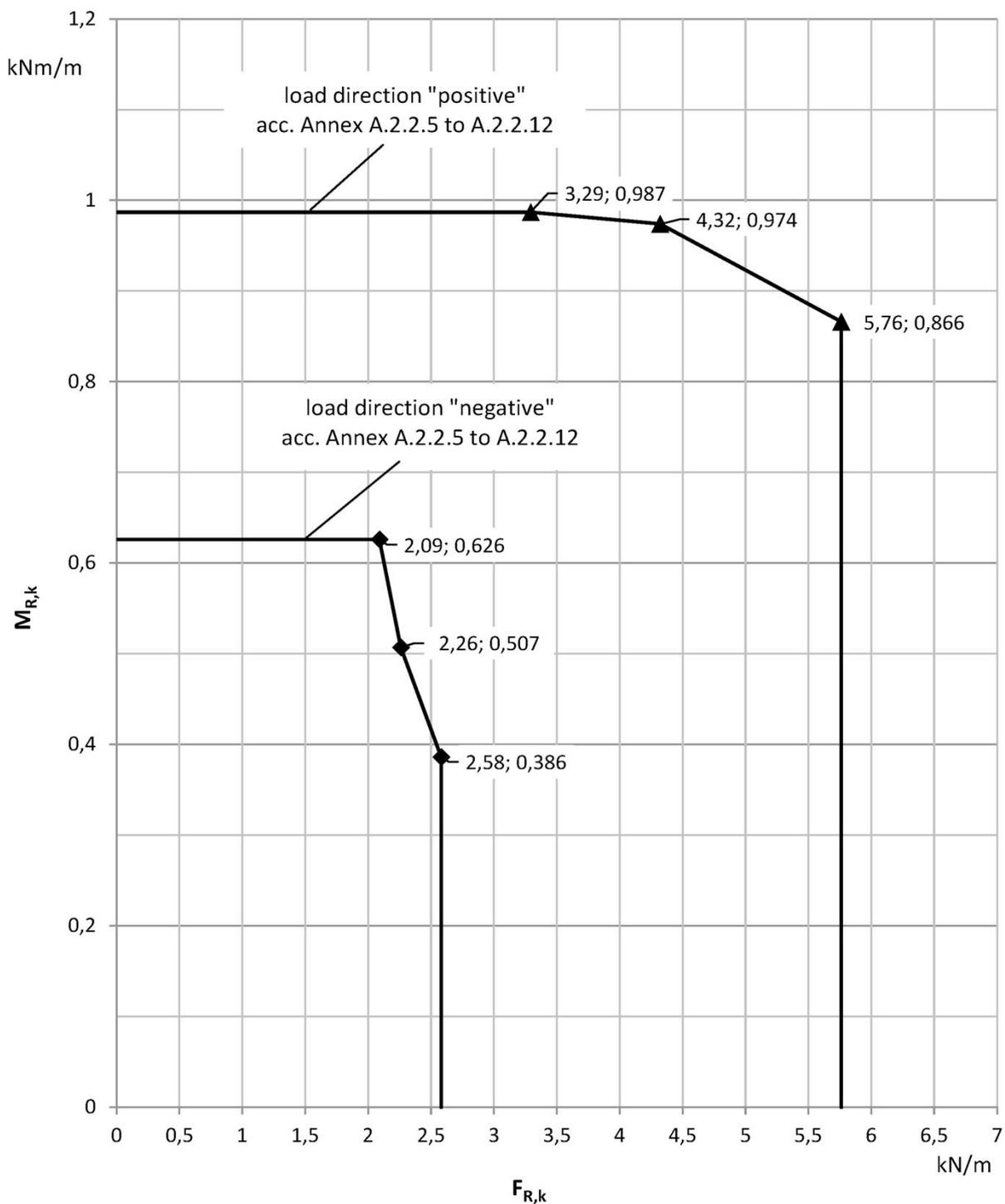


characteristic values for structural resistance R_k
interaction between support moment $M_{R,k}$ and support force $F_{R,k}$
as a result from windload
direction positive wind- and snowload
direction negative windload

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
multi-span system
"arcoPlus 547 F120" and "arcoPlus 549 F120"

Annex B 2.2.4

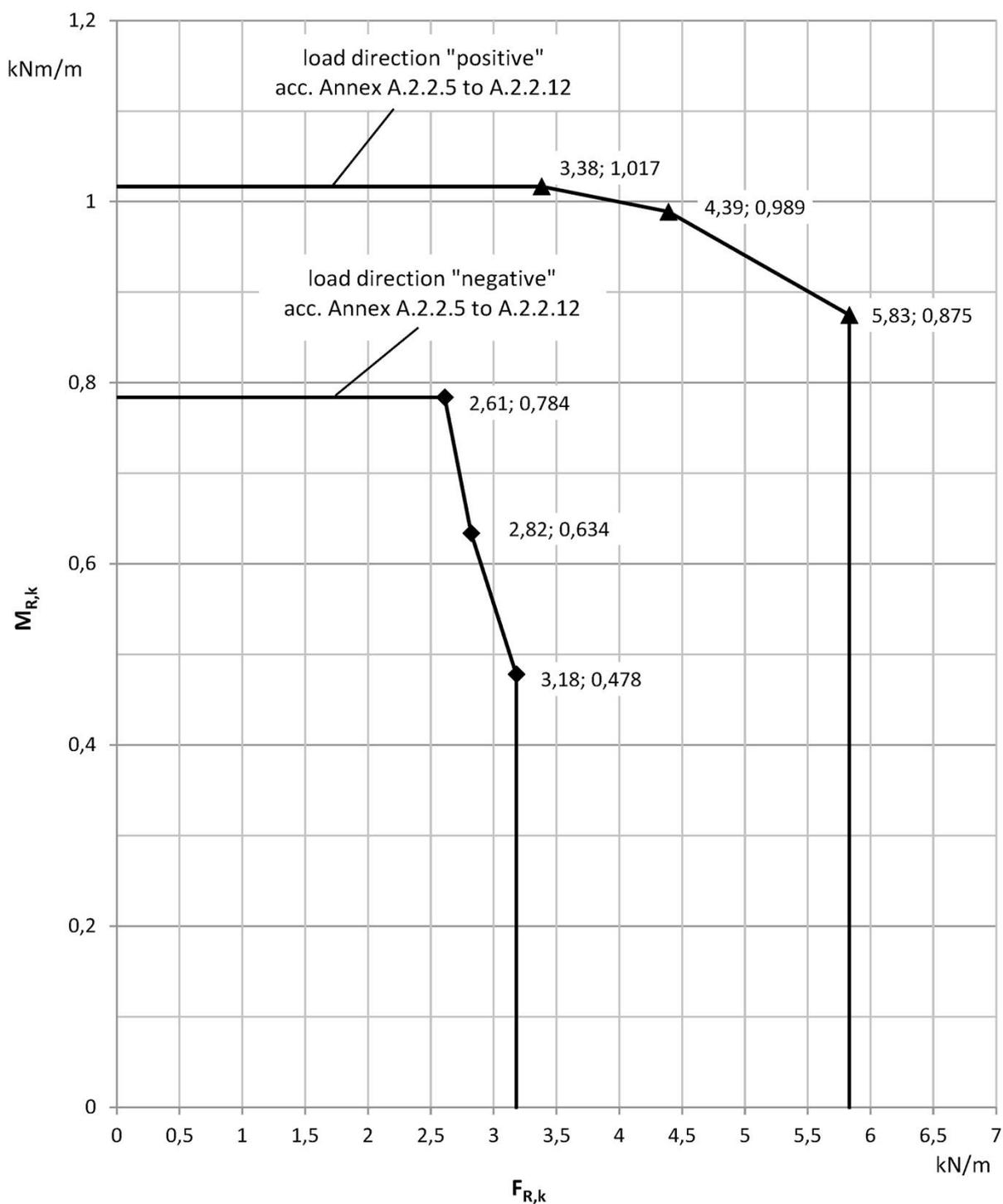


characteristic values for structural resistance R_k
interaction between support moment $M_{R,k}$ and supportforce $F_{R,k}$
as a result from windload
direction positive wind- and snowload
direction negative windload

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
multi-span system
"Prokulit PC 540-3 F60" and "Prokulit PC 540-7 F60"

Annex B 2.2.5

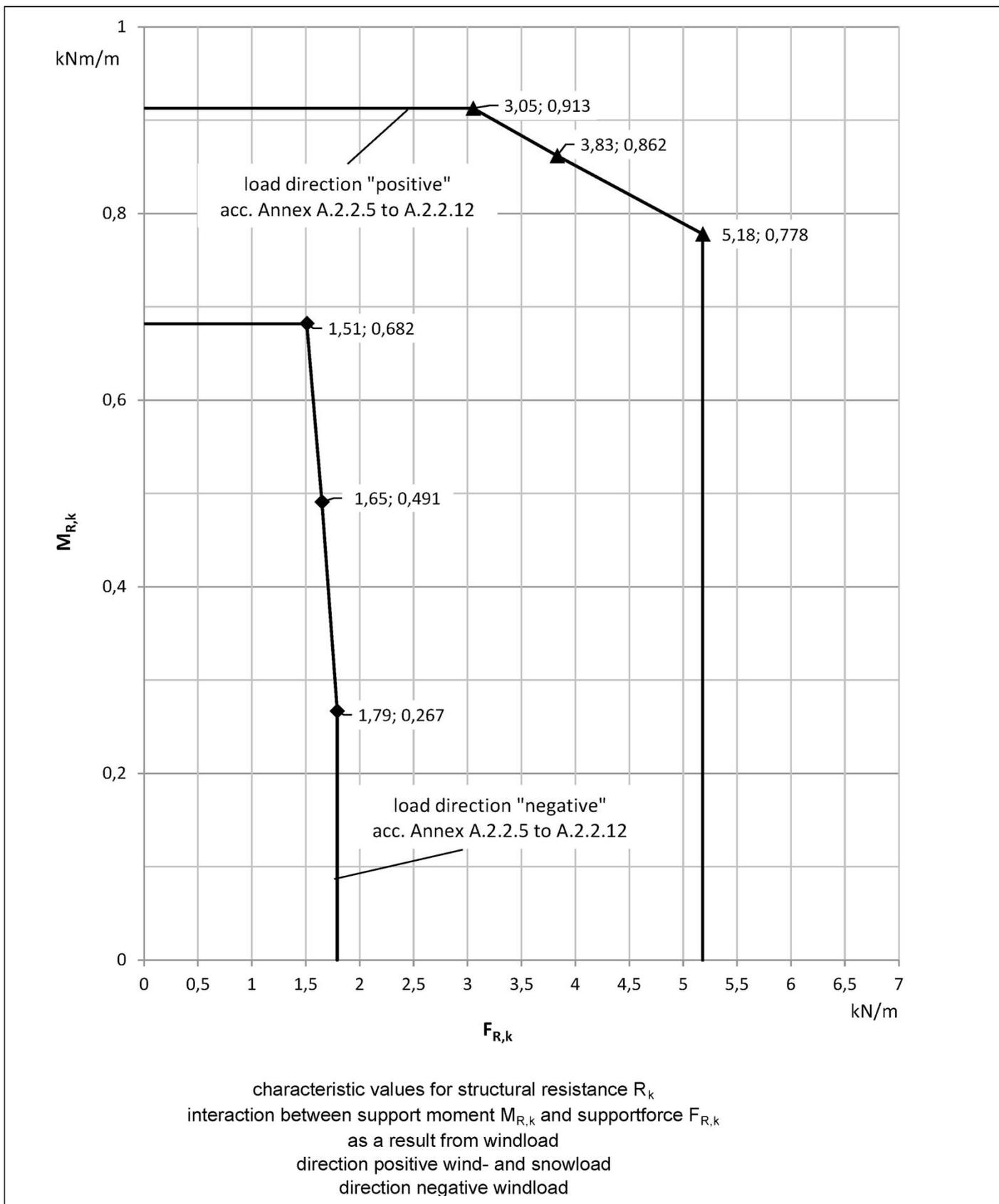


characteristic values for structural resistance R_k
interaction between support moment $M_{R,k}$ and support force $F_{R,k}$
as a result from windload
direction positive wind- and snowload
direction negative windload

arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
multi-span system
"Prokulit PC 540-3 F120" and "Prokulit PC 540-7 F120"

Annex B 2.2.6



arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11

Characteristic values for structural resistance
multi-span system
"Prokulit PC 540-3 VA" and "Prokulit PC 540-7 VA"

Annex B 2.2.7

**arcoPlus 547, arcoPlus 549, arcoWall 5613
Prokulit PC 540-3, -PC 540-7, -PC 560-11**

Annex C

**Provisions for installation, packaging, transport,
storage, use, maintenance and repair**

C 1 Installation

The verification of aluminium covering profiles and lift anchors, their fixings as well as the verification of substructure is not subject of this ETA.

The stability shall be verified for the respective substructure in accordance with the valid European specifications. Before the roof and wall kit is installed, the dimensional stability of the substructure shall be checked.

The compliance of the existing substructure with the substructure applied during the planning and verification of its load-bearing capacity shall be checked visually. The installation of the roof and wall kit may only be performed by specialists who are specially trained for this purpose. The installation guidelines of the manufacturer shall be respected. If the roof and wall kit is installed in roof a minimum inclination of 5° is necessary. The manufacturer of the roof and wall kit shall inform the specialists that they may only carry out assembly and installation of the roof and wall kit in accordance with his instructions and the provisions of the ETA. The hollow chambers of the multi-wall sheets may not be filled.

If the translucent roof and wall kit can systematically come into contact with chemical substances, the resistance to these substances of the multi-wall sheets in particular must be checked. Connection of the translucent roof and wall kit to the substructure shall be carried out in accordance with the structural analysis. The multi-wall sheets are to be connected to an area of any size by means of a joint on the long sides. The multi-wall sheets are to be framed on end supports by aluminum covering profiles given in Annex A 2.1.1 to A 2.2.14. The set-in stated there is a minimum bearing width to be observed at all times. Installed as multi-span system the multi-wall sheets are fastened by lift anchors. The translucent roof and wall kit shall be installed and connected to the adjacent structure in a manner ensuring that no moisture can penetrate into it and avoiding thermal bridges. These details shall be evaluated on a case-by-case basis.

C 2 Packaging, transport and storage

The components of the roof and wall kit must be stored and transported according to the manufacturer's instructions in such a way that damage to the components is excluded.

Storage should be protected from direct sunlight and bad weather. When storing outdoors, an opaque, light-coloured tarpaulin must be used. Storage must not be on the ground.

To avoid oxidation of raw aluminium profiles due to possible residual moisture in the original packaging, it is recommended to store them in a dry place or to unpack them immediately after unloading.

Packages must be inclined slightly to the horizontal to facilitate drying and separated from the floor so that there is sufficient space for good ventilation and to avoid heat build-up inside packages.

No more than two pallets may be stacked on top of each other. Tension straps must be provided in case of strong wind.

It is the responsibility of the manufacturer to ensure that the information is made known to the appropriate persons.

C 3 Use, maintenance and repair

The roof and wall kit in installed condition is not a walk-on system. For installation purposes, the roof and wall kit may be walked on by a single person using boards laid across the substructure (at least two bearing profiles) for support.

To maintain the visual appearance of the roof and wall construction system, it must be cleaned at regular intervals according to the manufacturer's instructions. To maintain the visual appearance the roof and wall kit is to clean in regular intervals to manufacturers instructions. Within the scope of maintenance, the installed roof and wall kit shall be visually inspected by the building's owner every two years. The manufacturer shall be consulted if the PC multi-wall sheets exhibit surface cracks or damage or if they are strongly discoloured. Repair shall be arranged where necessary.