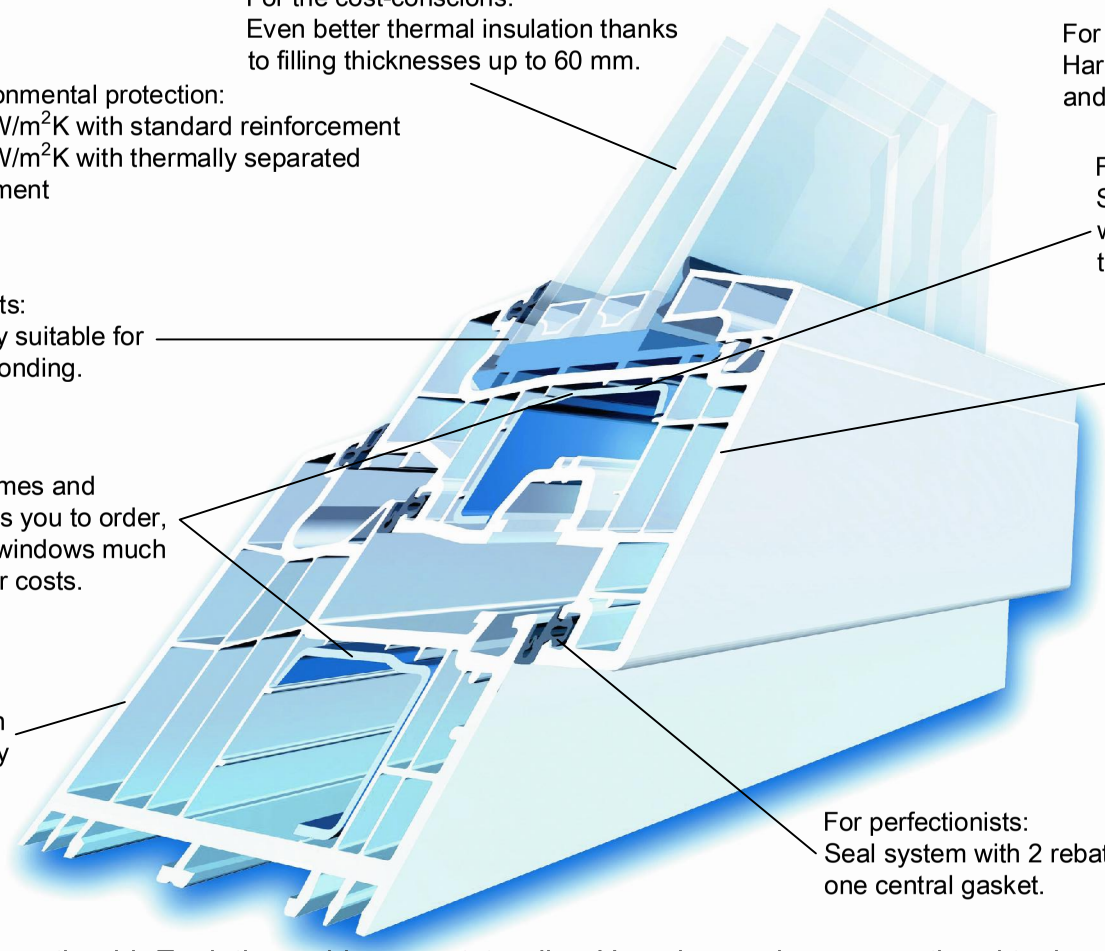
Not to scale

U_f = 1,0: Climate protection, energy efficiency, environmental protection



For the cost-conscions:
Even better thermal insulation thanks to filling thicknesses up to 60 mm.

For environmental protection:
U_f = 1,0 W/m^{2}K with standard reinforcement
U_f = 0,9 W/m^{2}K with thermally separated reinforcement

For experts:
Excellenty suitable for overlap bonding.

For your company:
Same steel used for frames and casements, which allows you to order, store and manufacture windows much more easily and at lower costs.

For the eye:
Elegant line layout through narrow visible width of only 118 mm.

For the discerning:
Harmonious synthesis of conventional and innovative technology.

For stability:
Safe load transfer even with high glass weight thanks to the special design of the reinforcing chamber.

For eternity:
RAL A for all wall thicknesses, top brand quality made in Germany.

For all:
Conventional PVC-steel profile system for white and coloured windows without formal or functional restrictions.

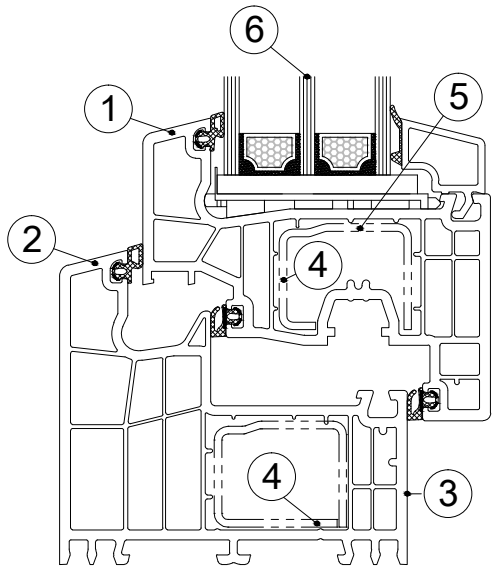
For the environment:
Straightforward recycling.

For perfectionists:
Seal system with 2 rebate gaskets and one central gasket.

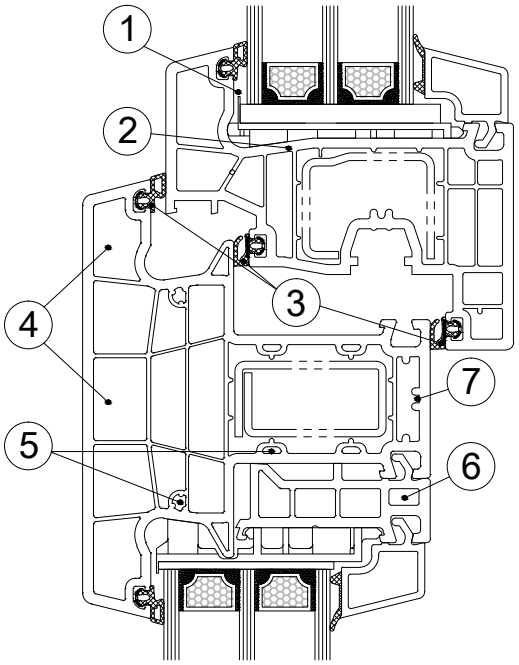
The profile generation bluEvolution achieves outstanding U_f values using conventional technology. The visible width of only 118 mm fulfils all aesthetic demands.
bluEvolution is setting the trend for a slim and clear design.

Issue: 03/2012

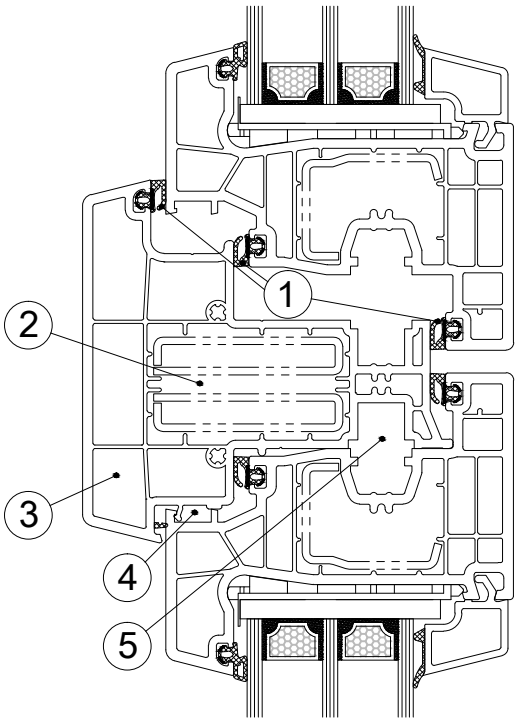
SALAMANDER INDUSTRIE-PRODUKTE



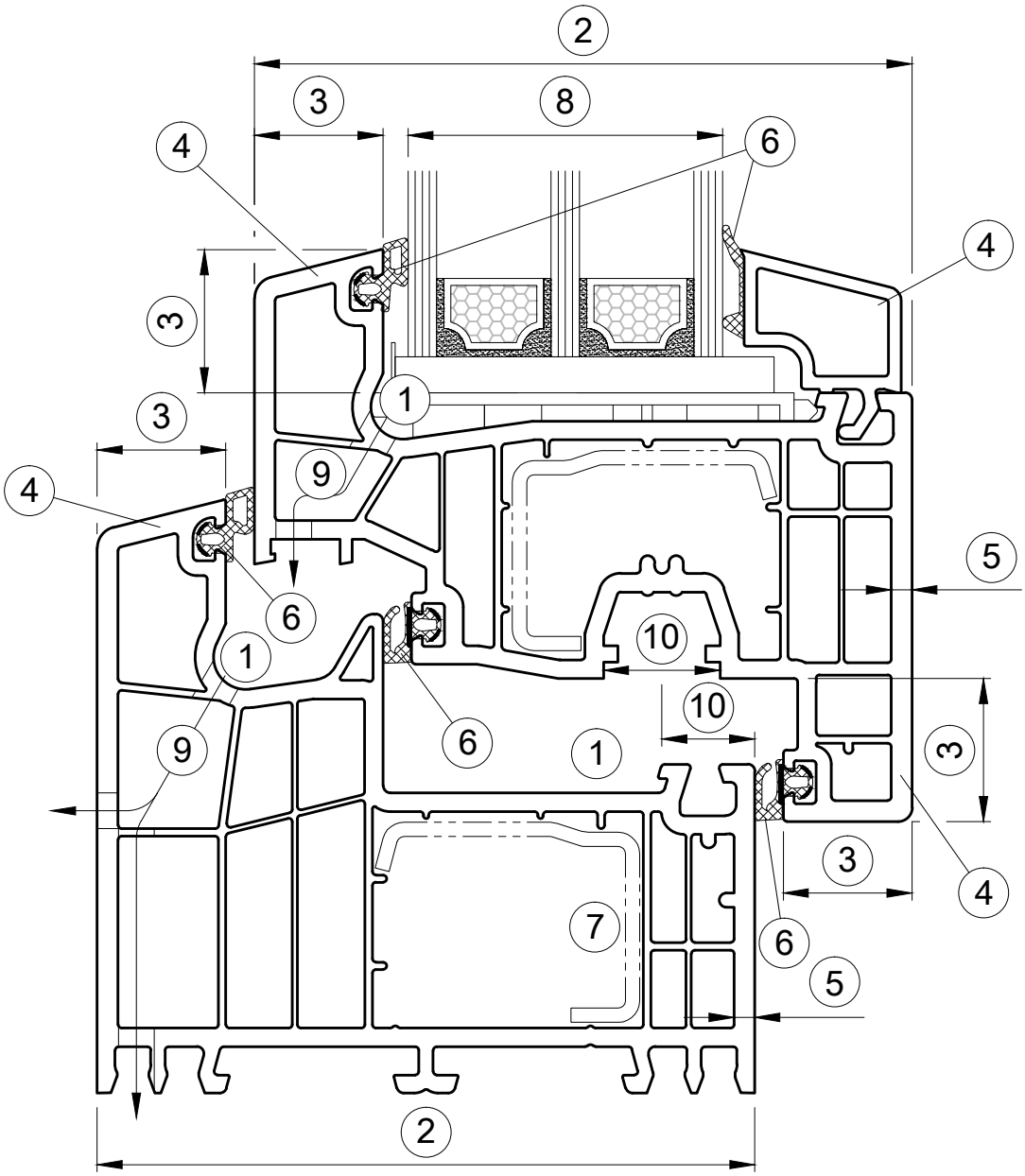
1. Elegant, classical design
2. Profiles made in Germany with wall thicknesses in accordance with EN Class A or RAL A respectively
3. U_f Value of the profile combination illustrated: 1,0 W/(m^{2}K)
4. Standardised steels possible for frames and casements
5. Safe load transfer under high glass weight
6. Filling thicknesses up to 60 mm



1. Casement overlap ideally suitable for gluing
2. Angled rebate in the casement frame guarantees functional reliability
3. Three gasket levels
4. Large pre-chambers for high thermal stability and optimum drainage
5. Mechanical T-connection through six screw channels for optimum sealing
6. Fixed glazing with additional profile without machining the frame
7. Safe fitting attachment through additional screw pin



1. Three gasket levels all the for optimum sealing
2. High moments of inertia are possible , for maximum requirements
3. Overlap caps, 2-piece
4. Assembly aid through fixing web
5. Concealed standard fitting without rebate lever possible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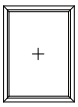
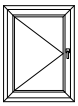
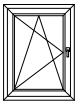
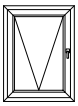
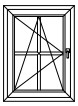
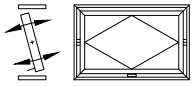
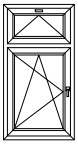
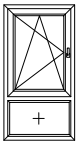
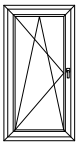
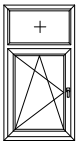
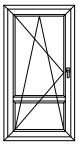
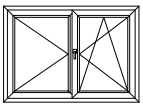
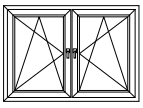
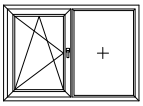
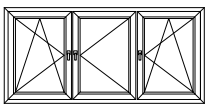
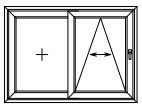
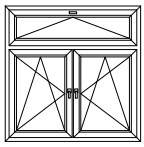
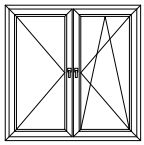
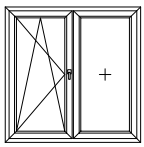
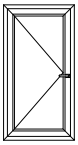
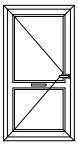
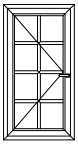
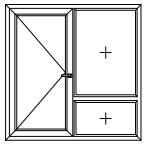
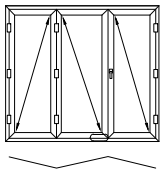
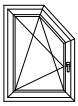
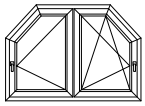
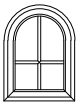
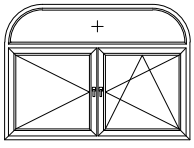
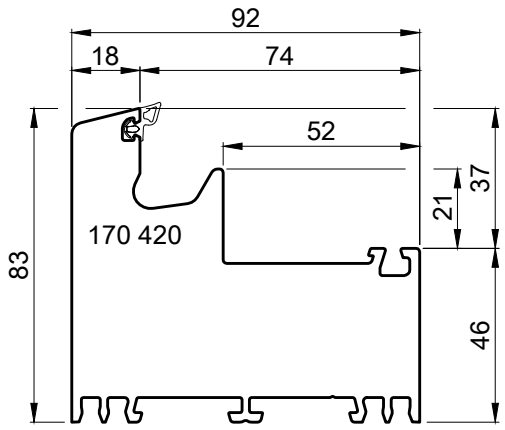
1	Rebate	Large chamber for water collection, angular glazing rebate with 4 mm upstand in frame/ casement
2	Construction depth	Frame: 92 mm Post: 92 mm Casement: 92 mm
3	Stops	Stop height: 20 mm Stop width: 18 mm
4	Stop design	All outer stops chamfered at an angle of 15° Inner casement stop straight Glazing bar chamfered at an angle of 15° Design variants possible
5	Profile wall thickness	Outside walls of the main profiles in accordance with RAL- GZ 716/1, Part 1 and 7 Inside walls according to constructive requirements
6	Gasket	Rebate gasket, inner and central rebate gasket, outer glazing gasket fitted in the factory, made of TPE, weldable Glazing bar gasket made of TPE Gap dimension of glazing 3,5 mm Gap dimension outer, inner and central rebate 4 mm
7	Reinforcements	Galvanized steel profiles in accordance with RAL- RG 716/1, Part 1 and 7 Thermally separated galvanised steel, PUR composite
8	Glazing	All standard insulatingglass panes for thermal and sound insulation and burglary resistance. Filling thickness from 24 - 60 mm
9	Drainage / ventilation	Via separate, large pre-chambers to the front or concealed downwards
10	Fitting	All standard one-handed fittings for 16 mm Euro-groove and 13 mm groove centre postion
11	Profile connection	Frame and casement corner connection by butt- welding Posts, bars and muntins by mechanical connection
12	Chamber construction	6- Chamber- System as standard in frame ans casement 5- Chamber- System in post / muntin
13	Colours	SALAMANDER- white solid coloured, homogeneous in mass with long-life surface protection BRÜGMANN- white solid coloured, homogeneous in mass with long-life surface protection Standard decor films insideand outside Special decor films on request RAL coating on request

No.	Types:	bE
01	 Fixed glazing	✓
02	 Side-hung window	✓
03	 Tilt-and-turn window	✓
04	 Bottom-hung window	✓
05	 Top-hung window	✓
06	 Tilt-and-turn window with casement bar	✓
07	 Tilt-and-turn window with casement cross bar	✓
08	 Centre-hung window	–
09	 Tilt-and-turn window with skylight	✓

No.	Types:	bE
10	 Tilt-and-turn window with parapet	✓
11	 Tilt-and-turn door	✓
12	 Tilt-and-turn door with fixed glazed skylight	✓
13	 Tilt-and-turn door with cross muntin in casement	✓
14	 Overlapping window side-hung - tilt-and-turn	✓
15	 Double-casement window tilt-and-turn - tilt-and-turn	✓
16	 Window element tilt-and-turn - fixed	✓
17	 Triple-casement window tilt-and-turn - side-hung - tilt-and-turn	✓

No.	Types:	bE
18	 Tilt-and-slide window or door	✓
19	 Double-casement window with bottom-hung skylight	✓
20	 Overlapping door	✓
21	 Door element tilt-and-turn - fixed	✓
22	 Side entrance door	✓
23	 Side entrance door with letter drop in cross muntin	–
24	 Side entrance door with muntins	✓

No.	Types:	bE
25	 Side entrance door combined with fixed glazing	✓
26	 Folding and sliding door	–
27	 Tilt-and-turn window with incline	✓
28	 Double-casement tilt-and-tun window with inclines	✓
29	 Tilt-and-turn pointed-arch window	✓
30	 Pointed-arch window with muntin	✓
31	 Basket arched window	✓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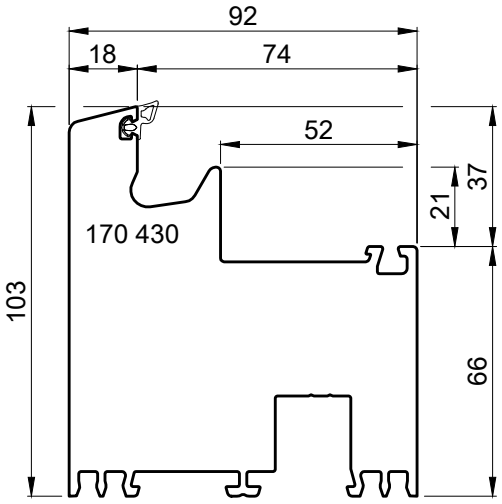
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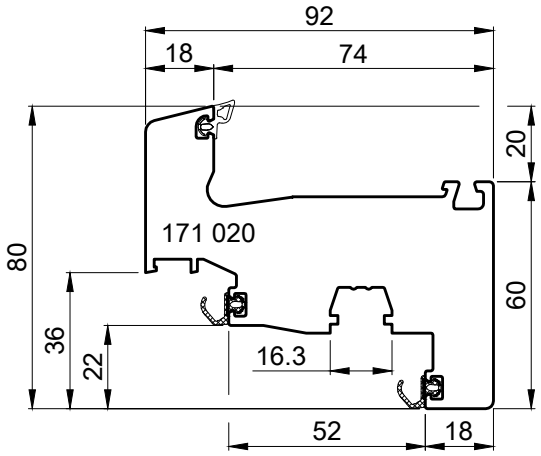
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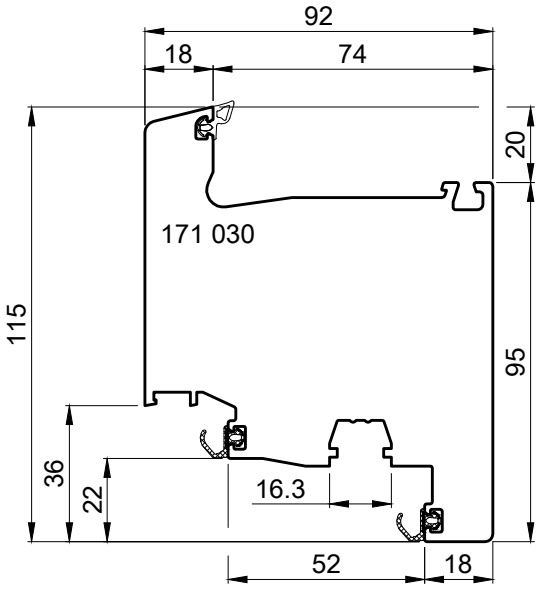
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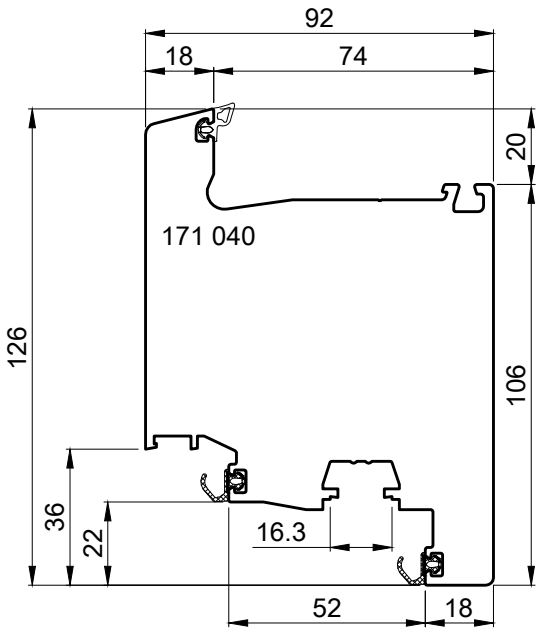
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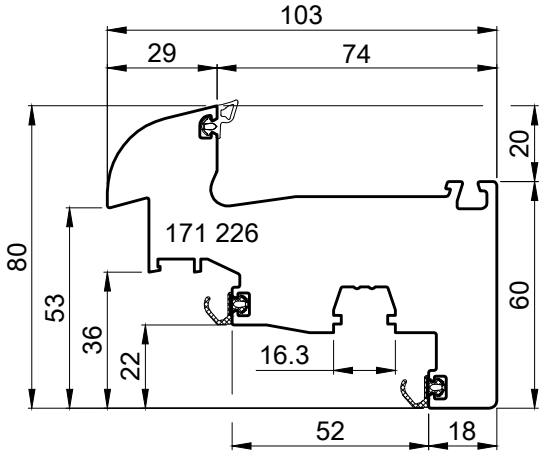
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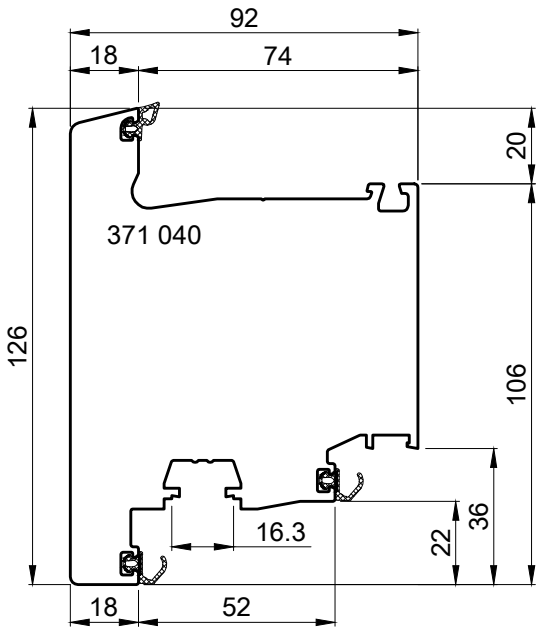
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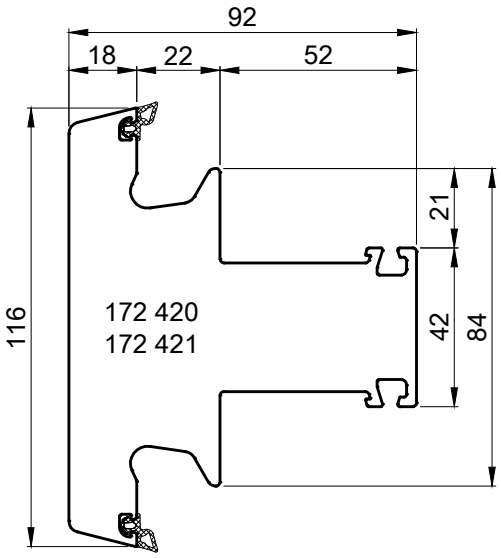
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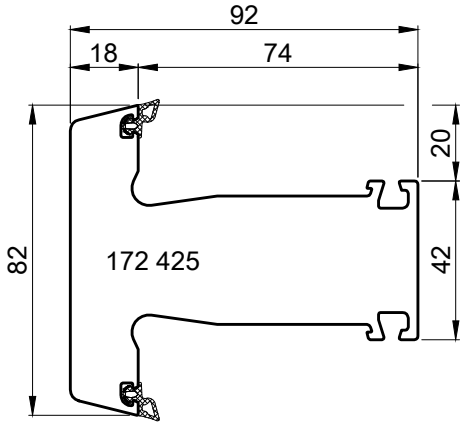
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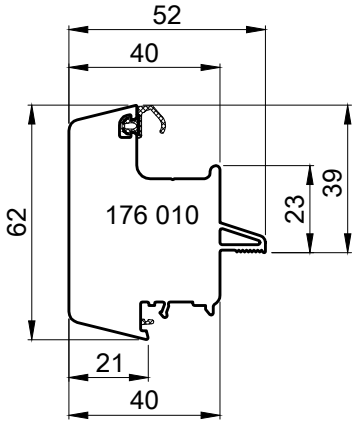
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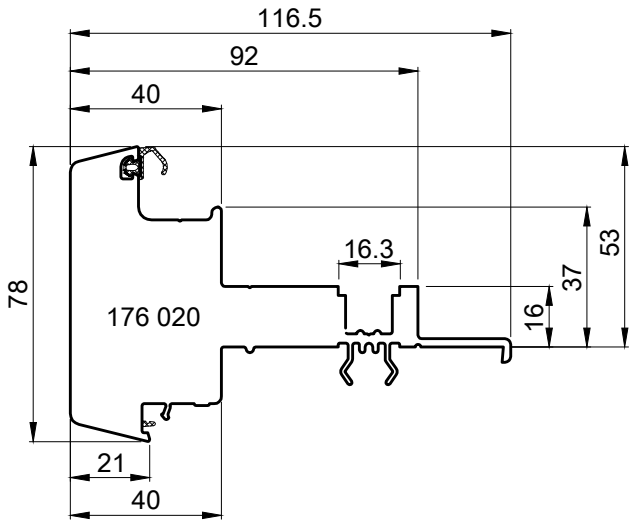
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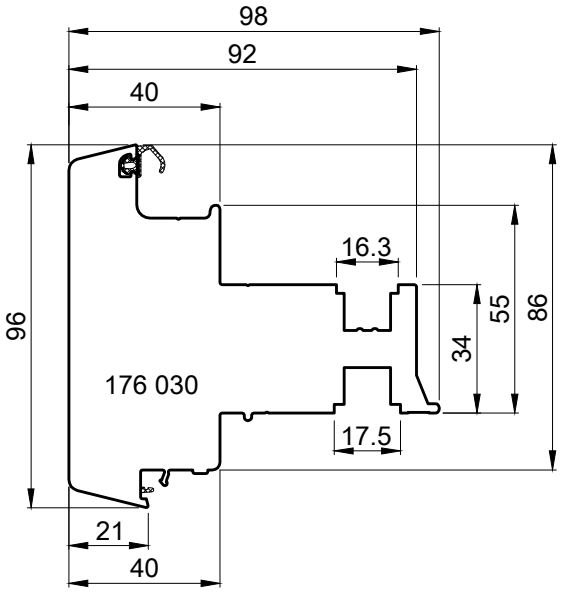
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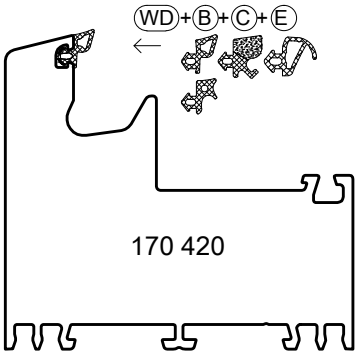
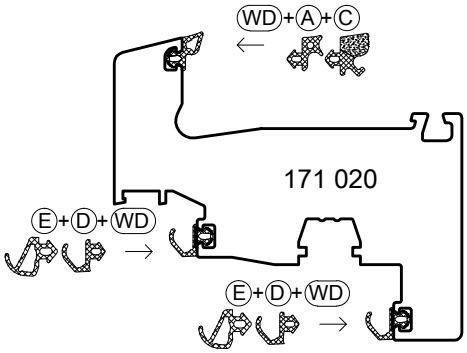
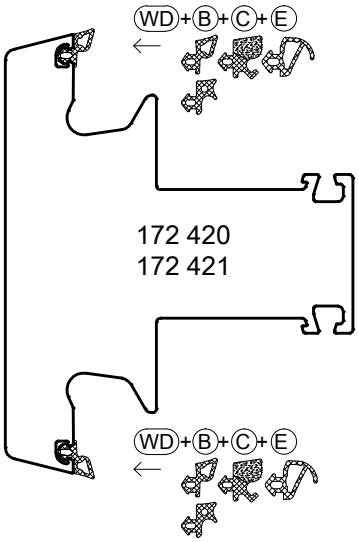
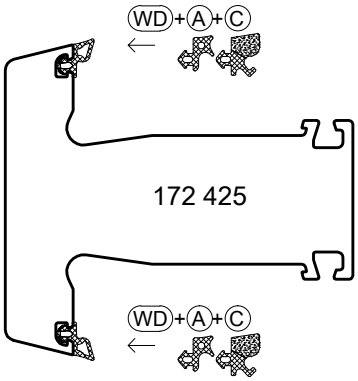
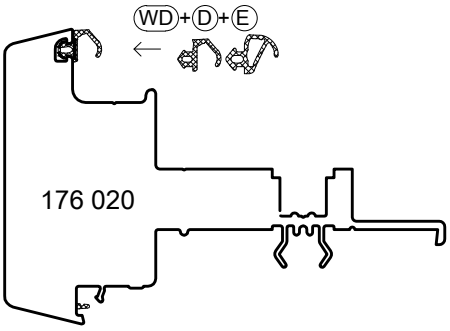










WD = Gasket integrated in the factory!!

A = Repair gasket casement + muntin EPDM 414 564

B = Repair gasket frame + muntin TPE 474 645
(alternatively EPDM 414 564)

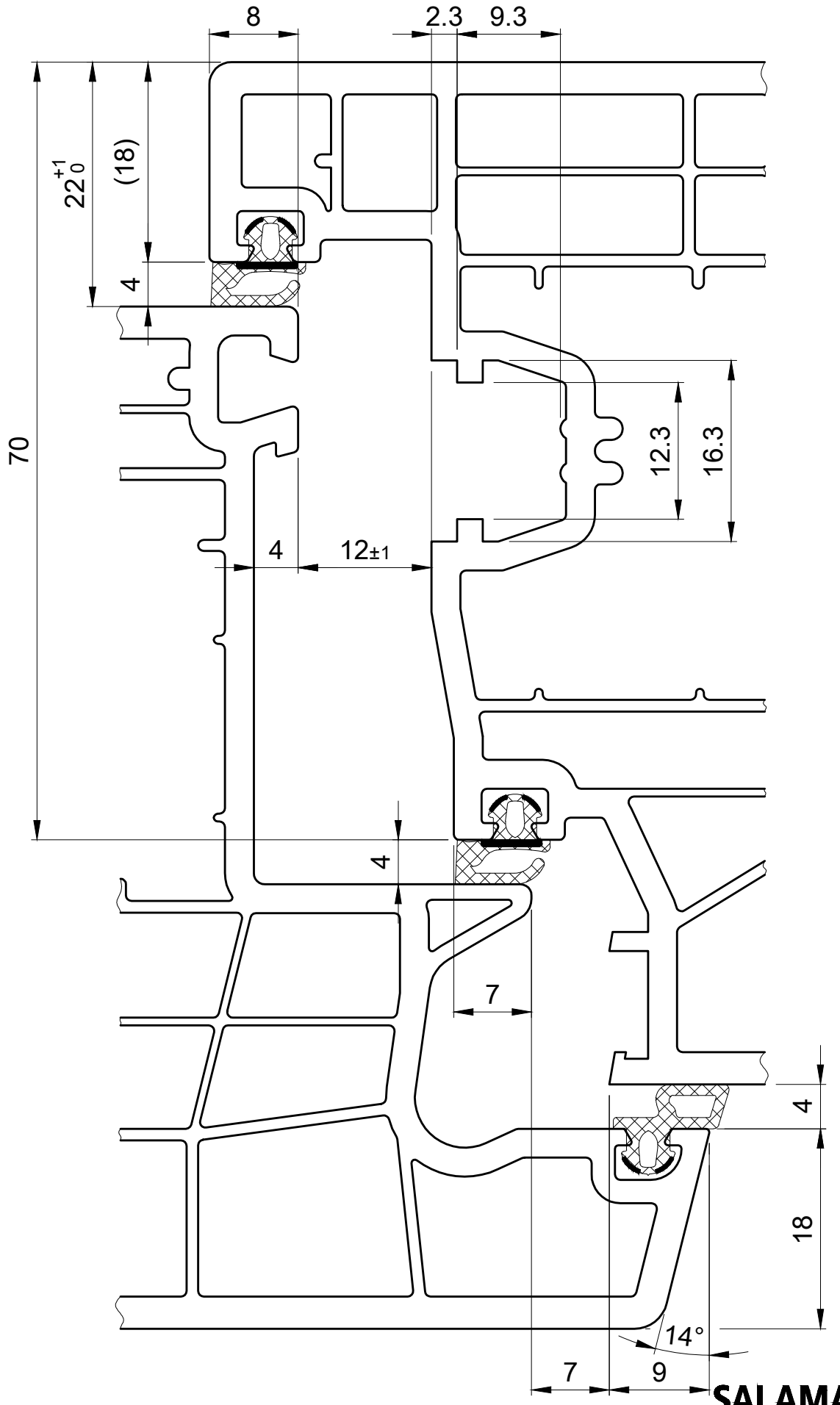
C = Special gasket frame + casement + muntin +
Muntin EPDM 414 573

D = Repair gasket casement + overlap TPE 474 221

E = Repair gasket frame + casement + post +
overlap EPDM 474 025

Window rebate (function dimensions)

Frame	Muntin	Casement	bE 01
170 420 / 170 430	**172 420 / 172 421**	**171 020 / 171 030 / 171 226**	**05.1**



Scale 2:1 (or depending on print-out)

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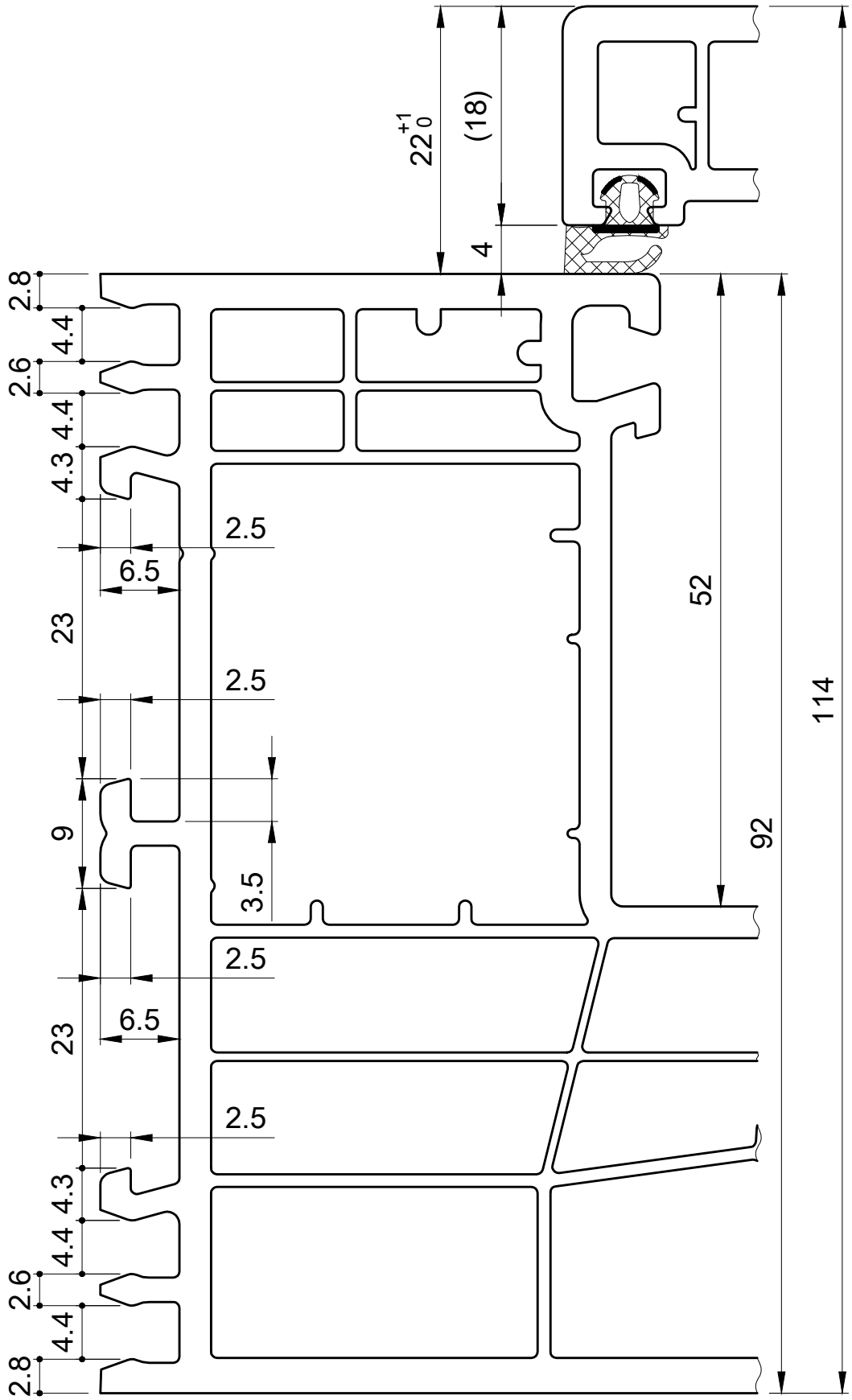
SALAMANDER INDUSTRIE-PRODUKTE

Overal frame (function dimensions)

Frame	Casement	bE 01
170 420	**171 020 / 171 030 / 171 226**	**05.2**



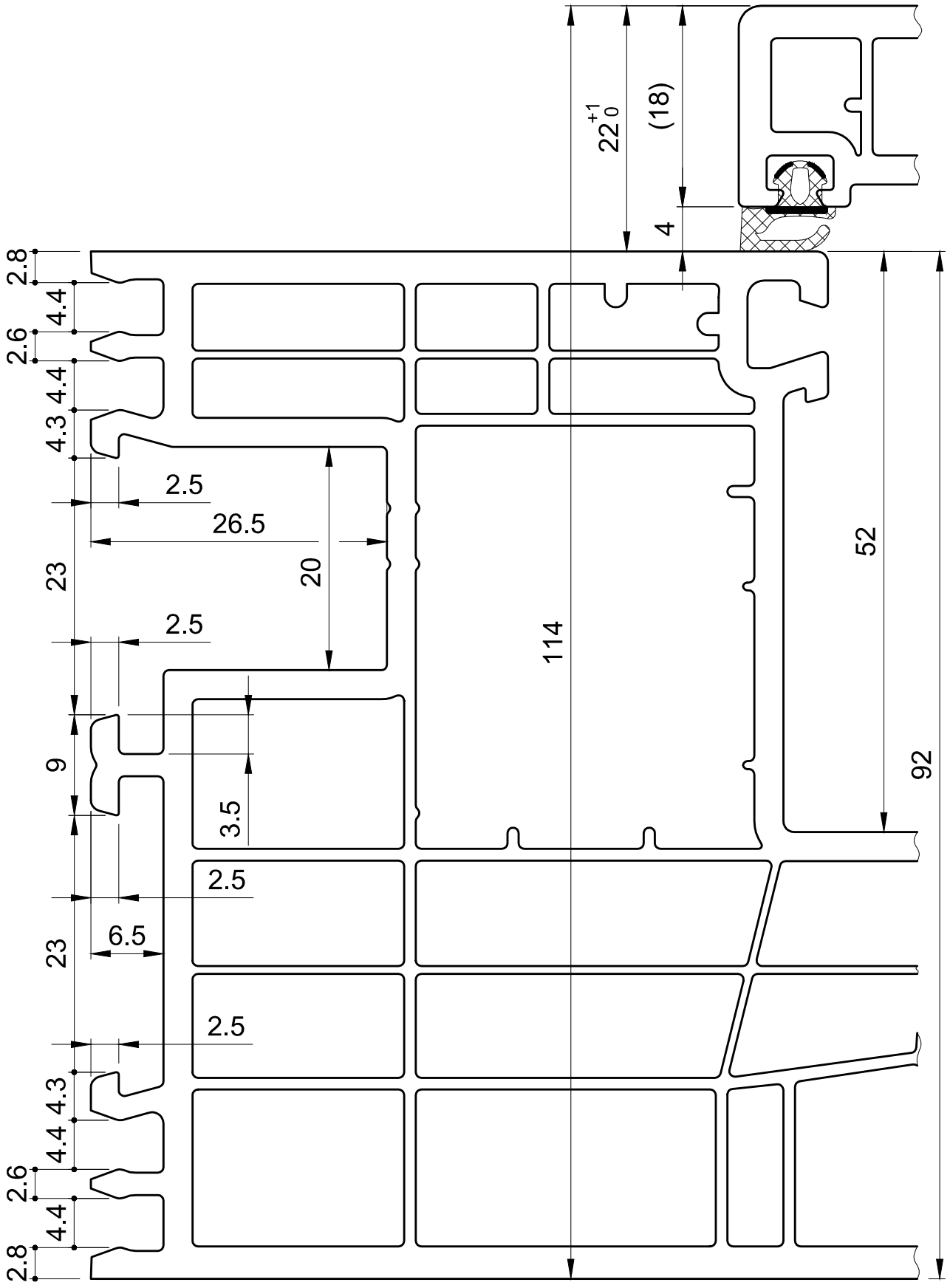
Scale 2:1 (or depending on print-out)

Issue: 03/2012

SALAMANDER INDUSTRIE-PRODUKTE

Overal frame (function dimensions)

Frame	Casement	bE 01
170 430	**171 020 / 171 030 / 171 226**	**05.3**



Scale 2:1 (or depending on print-out)

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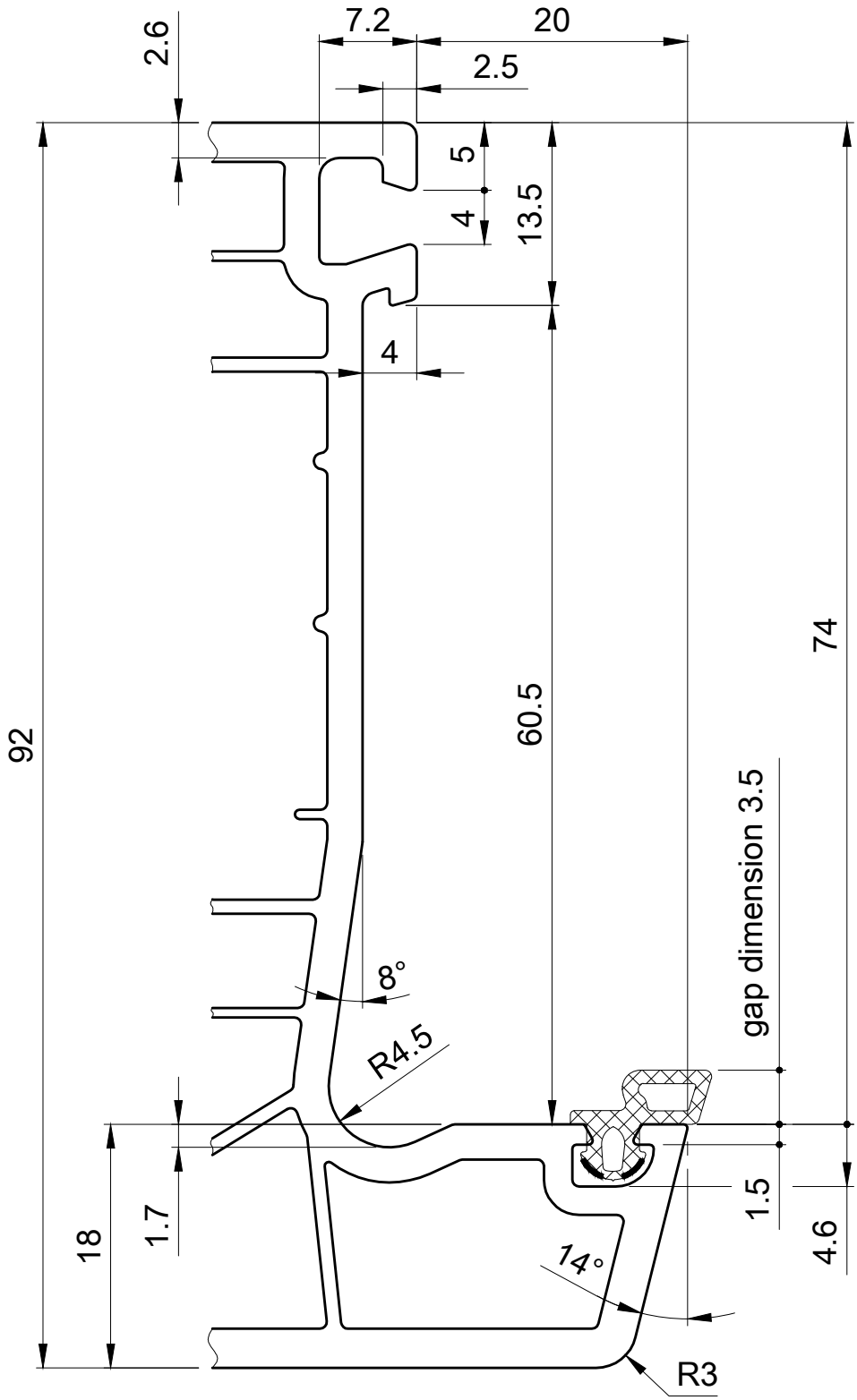
SALAMANDER INDUSTRIE-PRODUKTE

Casement rebate (function dimensions)

Casement	Muntin	bE 01
171 020 / 171 030	**172 425**	**05.4**



Scale 2:1 (or depending on print-out)

Issue: 03/2012

SALAMANDER INDUSTRIE-PRODUKTE

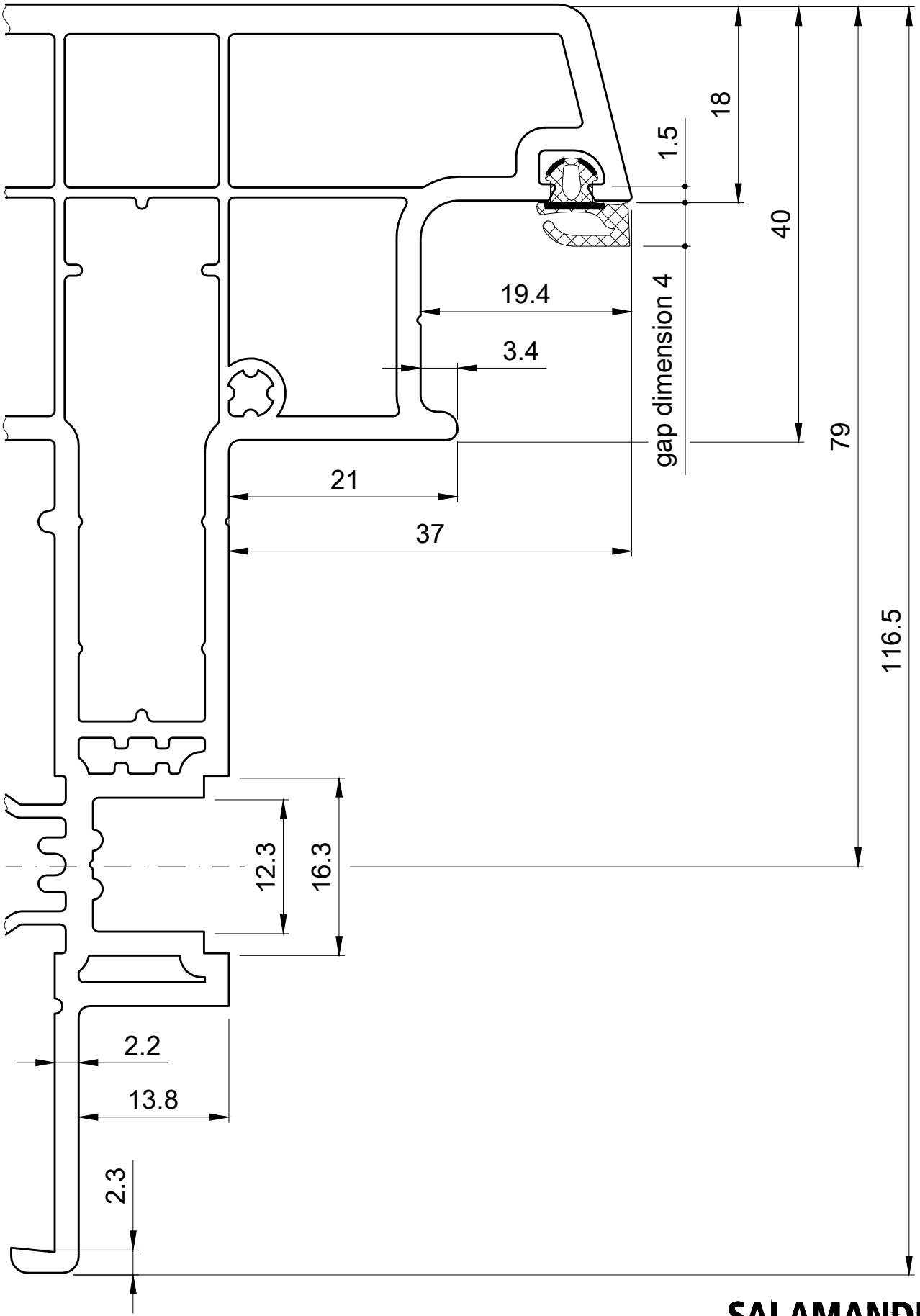
Overlap (function dimensions)

Overlap

176 020

bE 01

05.5



Scale 2:1 (or depending on print-out)

Issue: 03/2012

SALAMANDER INDUSTRIE-PRODUKTE

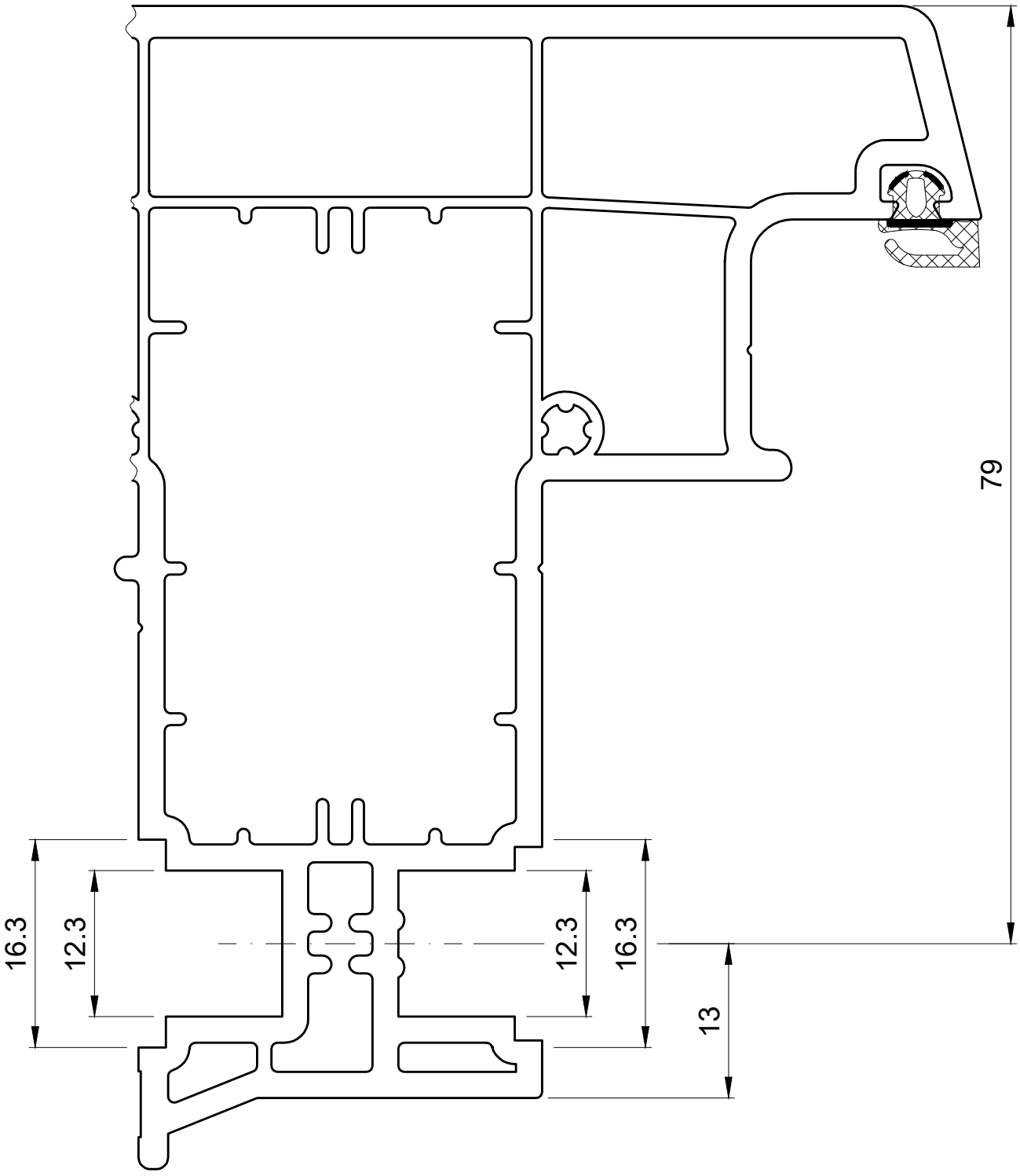
Overlap (function dimensions)

Overlap

176 030

bE 01

05.6



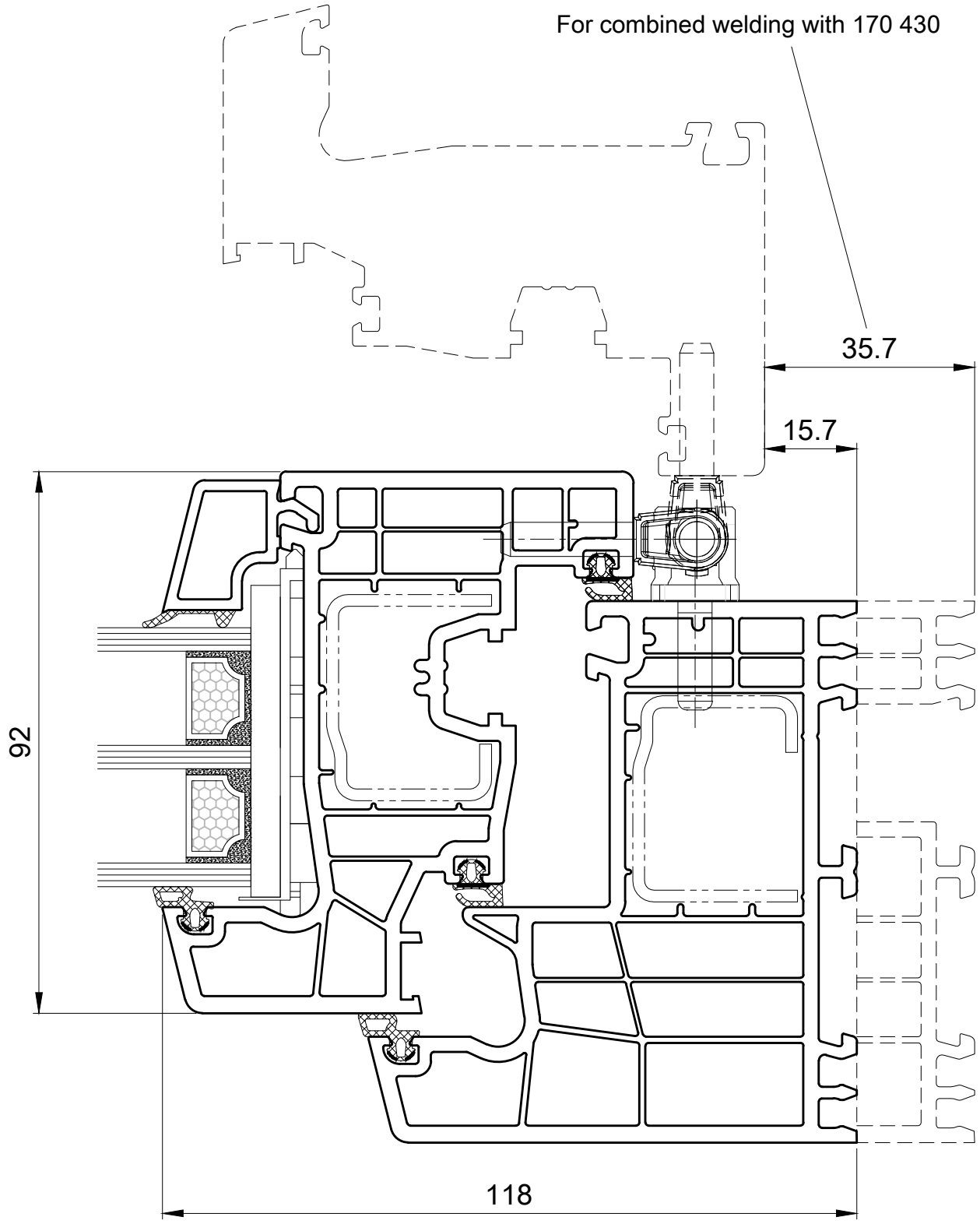
Scale 2:1 (or depending on print-out)

Issue: 03/2012

SALAMANDER INDUSTRIE-PRODUKTE

Frame/Casement (opening dimension)

Frame	Casement	bE 01
170 420 / 170 430	**171 020**	**05.7**



Scale 1:1 (or depending on print-out)

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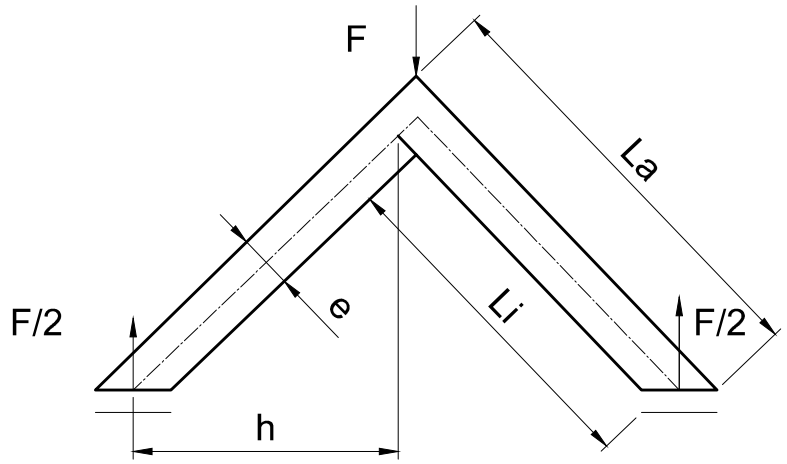
SALAMANDER INDUSTRIE-PRODUKTE

Not to scale

Art.-no.	Ix (cm^4)	e (mm)	Wx (cm^3)	h (mm)	Li (mm)	b (mm)	La (mm)	Pre-cut part (mm)	F ref. (N)
170 420	67,64	50,23	13,47	164	183	83	349	352	5300
170 430	132,93	60,61	21,93	157	162	103	368	371	9100
171 020	44,56	40,69	10,95	171	202	80	362	365	4200
171 030	155,36	59,07	26,30	158	165	115	395	398	10800
171 226	47,59	39,42	12,07	172	204	80	364	367	4600
172 420	124,10	58,00	21,40	159	167	116	399	402	8800
172 421	123,80	58,00	21,34	159	167	116	399	402	8700
172 425	45,39	41,00	11,07	171	201	82	365	368	4200
176 020	36,93	43,31	8,53	169	196	78	352	355	3300
176 030	69,78	51,22	13,62	164	181	96	373	376	5400



Ix	Moment of area around the x-axis
e	Distance between critical fibres and neutral fibres
Wx	Moment of resistance of the profile in direction of load (inside corner)
h	Lever arm
Li	Length of the bars on the inside
Fref	Minimum value for breaking force
b	Profile width
La	Length of the bars on the outside

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SALAMANDER INDUSTRIEPRODUKTE

Profile material

SALAMANDER plastic window profiles are made of highly impact-resistant modified hard PVC in line with RAL quality and testing conditions for plastic window profiles RAL-GZ 716/1.

Moulding material:

Solid coloured hard PVC moulding material in white, brown and special colours (e. g. cream, caramel).

Description according to DIN EN ISO 1163-1:

Moulding material ISO 1163-PVC-U, EDLP, 082-25-28

PVC = Polyvinyl chloride
U = Hard (plasticizer-free)
E = Extrusion
D = Powder
L = Stabilised resistant to light and the weather
P = Modified in terms of impact resistance

The SALAMANDER moulding material exceeds the requirements of RAL-GZ 716/1.

Type of PVC		Delivery forn		Processing	
Letter	Meaning	Letter	Meaning	Letter	Meaning
U	plasticizer-free	D	Pulver	E	Extrusion
Vicat- softening temperature VST/B		Notch impect resistance mindestens		Bending- E- module at least	
Number	°C	Number	kJ/m²	Number	N/mm²
082	>80 ≤84	25	>20	28	>2500

Testing on hardboard

Material characteristics of the SALAMANDER window profiles

Measurement on test bodies made of extruded profiles: (taken in direction of extrusion)

	Testing method	Unit	Value	
Density	DIN 53 479	g/cm³	1,47	± 0,03
Tensile stress at yield	DIN EN ISO 527 - 3/1B/50	N/mm²	43	± 4
Pull-E-module	DIN EN ISO 527 - 3/1B/1	N/mm²	>2500	± 100
Notch impact resistance double-V notch at +23°C	DIN EN ISO 179/1fC remaining width 3 mm according to RAL	kJ/m²	>40-65	
Notch impact resistance at +23°C	DIN EN ISO 179/1e A	kJ/m²	>80	
Tensile impact resistance	EN ISO 8256	kJ/m² kJ/m²	>700-1200 (23°C) >500-700 (0°C)	
Vicat softening temperature VST/B	DIN EN ISO 306	°C	80-83°C	
Coefficient of linear expansion between -30°and +50°C	Leitz dilatometer	K^{-1}	7×10^{-5}	
Heat conductivity	Two-board method	W/m K	0,16	

Material characteristics of SALAMANDER seals, TPE

TPE - quality in accordance with RAL GZ 716/1, section II; product class IV (outside and inside uses)

	Testing method	Unit	Value
Density	DIN EN ISO 1183-1	g / cm³	1,23
Tolerance of the rated hardness	DIN 53 505/ISO 868	IR-HO	±5
Tensile test	DIN 53 504		
Tensile strength		N / mm²	≥5,0
Elongation at break		%	≥250
Compression set	DIN ISO 815		
(-25°C/22h/25%)		%	≤90
(23°C/22h/25%)		%	≤35
(70°C/22h/25%)		%	≤50
Behaviour according to Thermal ageing	DIN 53 508 (7 days, 100°C)		Without complaint
Hardness change	DIN ISO 48	IRHD	≤5
Change in tensile strength	DIN 53 504/53 455	%	≤25
Elongation at break (absolute)	DIN 53 504/53 455	%	≥200
Change in Shore hardness with change in temperature	DIN 53 505 von 23°C auf - 10°C	-	≤25
Behaviour after ozone influence	DIN 53 509	crack stage	0
Behaviour in artificial weather conditions	RAL-GZ 716/1, section I DIN EN 513, method 1		no cracks, no bubbles
Weather-proofness	DIN 53504 (elongation at break)	%	≥200
Contact discolouration	Grey scale ISO 105	Authenticity figure (A03)	≥3
Weight loss	DIN 53407, Method A	%	≤3,0
Compatibility	Contact under tensile bending strain from 0-15 N/mm²		No cracks formed in the contact material

SALAMANDER - Fensterprofilsysteme

GARANTIE - URKUNDE

für weiße und folienkaschierte Profile

Für SALAMANDER- Fensterprofile, hergestellt aus
hochschlagzäh modifiziertem Hart- PVC, gewährt die Firma
Salamander Industrie///Produkte GmbH, 86842 Türkheim/ Bayern,
für die Dauer von

5 Jahren

ab dem Zeitpunkt der Lieferung, Garantie für die
gleichmäßige Qualität der Kunststoff- Fensterprofile in Bezug
auf

1. zeichnungsgerechte Formbeschaffenheit,
2. Wetterechtheit (Farbänderung),
3. Stoßfestigkeit in der Kälte,
4. Wetterbeständigkeit.

Die Anforderungen und Prüfmethoden entsprechen
den RAL- Güte- und Prüfbestimmungen für Kunststoff- Fenster
(RAL- GZ 716/1, Abschnitt 1, Teil 1 und 7)

Die Gewährleistung begründet den Anspruch auf kostenlose Ersatzlieferung
der beanstandeten Profile.
Weitergehende Ansprüche, gleichgültig aus welchen Gründen, bestehen nicht.

Die Gewährleistung erstreckt sich auf das Gebiet
der Bundesrepublik Deutschland, Dänemark, Frankreich,
England, Österreich und Schweiz.

SALAMANDER INDUSTRIE///PRODUKTE GmbH
Postfach 160 - 86838 Türkheim
Jakob- Sigle- Straße 58 - 86842 Türkheim
Telefon: 08245 / 52 - 0
Telefax: 08245 / 52 - 101

VERLEIHUNGSURKUNDE

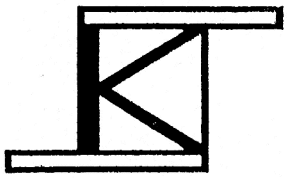
Registrier-Nr. 117

Die Gütegemeinschaft Kunststoff-Fensterprofile im Qualitätsverband Kunststofferzeugnisse e.V. verleiht nach Prüfung der Voraussetzungen der Firma

Salamander Industrie-Produkte GmbH
Türkheim, Jakob-Sigle-Straße 58

das vom RAL (Deutsches Institut für Gütesicherung und Kennzeichnung e.V.) anerkannte und zeichenrechtlich geschützte

Prüfzeichen der Gütegemeinschaft Kunststoff-Fensterprofile im Qualitätsverband Kunststofferzeugnisse e.V.



für die Hauptprofile des Fenstersystems

SALAMANDER

überwacht nach Teil 1, Abschnitt I der RAL-GZ 716/1

Produktionsstätte: **Türkheim**

Mit der Verleihung des Rechts zur Führung des Prüfzeichens ist die Verpflichtung verbunden, für die Einhaltung der RAL Güte- und Prüfbestimmungen Abschnitt I – RAL-GZ 716/1 – Gewähr zu bieten. Außerdem unterliegt die Fertigung der obengenannten Erzeugnisse einer ständigen amtlichen Güteüberwachung durch eine neutrale Prüfanstalt.

Gütegemeinschaft Kunststoff-Fensterprofile
im Qualitätsverband Kunststofferzeugnisse e.V.

Der Güteausschuß

Bonn, den 03. September 1999

VERLEIHUNGSURKUNDE

Registrier-Nr. 102-1

Die Gütegemeinschaft Kunststoff-Fenstersysteme im Qualitätsverband Kunststofferzeugnisse e.V. verleiht nach Prüfung der Voraussetzungen der Firma

Salamander Industrie-Produkte GmbH
Türkheim, Jakob-Sigle-Straße 58

das vom RAL (Deutsches Institut für Gütesicherung und Kennzeichnung e.V.) anerkannte und zeichenrechtlich geschützte

RAL-Prüfzeichen der Gütegemeinschaft Kunststoff-Fenstersysteme im Qualitätsverband Kunststofferzeugnisse e.V.

für die Hauptprofile des Fenstersystems

Brügmann

überwacht nach Teil 1, Abschnitt I der RAL-GZ 716/1.

Produktionsstätte: **Papenburg**

Mit der Verleihung des Rechts zur Führung des RAL-Prüfzeichens ist die Verpflichtung verbunden, für die Einhaltung der RAL Güte- und Prüfbestimmungen Abschnitt I – RAL-GZ 716/1 – Gewähr zu bieten. Außerdem unterliegt die Fertigung der obengenannten Erzeugnisse einer ständigen amtlichen Güteüberwachung durch eine neutrale Prüfanstalt.

Gütegemeinschaft Kunststoff-Fenstersysteme
im Qualitätsverband Kunststofferzeugnisse e.V.

Der Güteausschuss

Bonn, den 15. Mai 2007

Stefan Reinbold

VERLEIHUNGSURKUNDE

für

Gütegesicherte Fensterprofile

Registrier-Nr. 307

Die RAL-Gütegemeinschaft Kunststoff-Fensterprofilsysteme e.V. verleiht der Firma

Salamander Industrie-Produkte GmbH

86842 Türkheim, Jakob-Sigle-Straße 58

für die in beiliegender Liste genannten Hauptprofile des Fenstersystems

SALAMANDER Colour Line

der Produktionsstätte **Türkheim**

das RAL-Gütezeichen

RAL GÜTEZEICHEN

KUNSTSTOFF-FENSTER PROFIL-SYSTEME

Mit der Verleihung erhält die Firma das Recht, das vom RAL Deutsches Institut für Gütesicherung und Kennzeichnung e.V. anerkannte und zeichenrechtlich geschützte RAL-Gütezeichen zu führen. Damit ist die Verpflichtung verbunden, die Einhaltung der RAL-Güte- und Prüfbestimmungen der RAL-GZ 716/1 zu gewährleisten und die Fertigung der angemeldeten Systeme einer regelmäßigen Güteüberwachung durch eine neutrale Prüfstelle zu unterziehen.

erstmalige Erteilung: 03. September 1999 — ausgestellt am: 19. September 2011

Gerald Feigenbutz
Geschäftsführer

Dr. Michael Stöger
Obmann des Gütteausschusses

VERLEIHUNGSURKUNDE

für

Gütegesicherte Fensterprofile

Registrier-Nr. 309

Die RAL-Gütegemeinschaft Kunststoff-Fensterprofilsysteme e.V. verleiht der Firma

Salamander Industrie-Produkte GmbH
86842 Türkheim, Jakob-Sigle-Straße 58

für die in beiliegender Liste genannten Hauptprofile des Fenstersystems

Brügmann Colour Line

der Produktionsstätte **Papenburg**

das RAL-Gütezeichen

RAL GÜTEZEICHEN
KUNSTSTOFF-FENSTER PROFIL-SYSTEME

Mit der Verleihung erhält die Firma das Recht, das vom RAL Deutsches Institut für Gütesicherung und Kennzeichnung e.V. anerkannte und zeichenrechtlich geschützte RAL-Gütezeichen zu führen. Damit ist die Verpflichtung verbunden, die Einhaltung der RAL-Güte- und Prüfbestimmungen der RAL-GZ 716/1 zu gewährleisten und die Fertigung der angemeldeten Systeme einer regelmäßigen Güteüberwachung durch eine neutrale Prüfstelle zu unterziehen.

erstmalige Erteilung: 02. Januar 2002

ausgestellt am: 18. Oktober 2011

Gerald Feigenbutz
Geschäftsführer

Dr. Michael Stöger
Obmann des Gütausschusses