

**Classification of Fire
 Resistance Performance,
 Smoke Control and
 Self-closing Characteristics
 in accordance with
 EN 13501-2:2016**

K-5052-DMT-DO

Customer	Kegro Deuren B.V. Industrieweg 25 6562 AP Groesbeek The Netherlands
Compiled by	DMT GmbH & Co. KG DMT Test Laboratory for Fire Protection, Test Body for Fire Protection Hermann-Kemper-Straße 12a 49762 Lathen Germany
Number of notified body	2509
Product	Single and double leaved wooden framed doorset with glazing and/or panel filling, with or without side and/or transom panels, in various supporting constructions
Product designation	KegaWood
Nr. of the classification report	K-5052-DMT-DO
Issue number	1
Issue date	25.10.2022
Validity	unlimited

TABLE OF CONTENTS	PAGE
1 INTRODUCTION	3
2 DETAILS OF CLASSIFIED PRODUCT	3
2.1 GENERAL	3
2.2 DETAILED PRODUCT DESCRIPTION	3
3 TEST REPORTS / REPORTS OF EXTENDED CLASSIFICATION AND TEST RESULTS FOR VERIFICATION OF CLASSIFICATION	4
3.1 TEST REPORTS	4
3.1.1 Test reports according to EN 1634-3	4
3.1.2 Test results of test reports according to EN 1634-3	4
3.2 REPORTS OF EXTENDED APPLICATION	5
4 CLASSIFICATION AND FIELD OF APPLICATION	5
4.1 REFERENCE OF CLASSIFICATION	5
4.2 CLASSIFICATION	5
4.3 FIELD OF APPLICATION	6
5 LIMITATIONS	6
ANNOTATIONS	7
ANNEXES 1 TO 6.3 OF CLASSIFICATION REPORT	

1 Introduction

This classification report of smoke control defines the classification assigned to a smoke control door with designation „KegaWood“ in accordance with the procedures given in EN 13501-2:2016.

2 Details of classified product

2.1 General

The building component „KegaWood“ belongs to the product type smoke protection doors according to EN 16034.

The building component „KegaWood“ is provided for the appropriation as single- and double-leaved smoke control door. It fulfils the criterion of smoke leakage S (section 5.2.7 of EN 13501-2) and thereby reduces or excludes the leakage of gas or smoke from one side to the other, both at ambient temperature (S_a) as also with a temperature of 200 °C (S_{200}).

Single leave doorsets and the active leaf of a double leaved doorset of the product „KegaWood“ fulfils the requirements of the self-closing characteristics C (section 5.2.6) with the ability to close completely out of the opened position.

An exposed side is not defined, the exposed side can either be the opening side as also the closing side/face.

2.2 Detailed product description

The product „KegaWood“ is a single and double leaved optionally glazed wood frame door optional with side panels and top panel, optionally glazed. The building component is described completely in the test reports and the reports of extended application, which are referred to in section 3.1 for verification of classification, as also the annexes 1 to 6.3 of this classification report.

3 Test reports / reports of extended classification and test results for verification of classification

3.1 Test reports

3.1.1 Test reports according to EN 1634-3

No.	Name of Laboratory No. of Notified Body	Name of sponsor	Test report no. dated	Test method
S1	DMT GmbH & Co. KG NB 2509	Kegro Deuren B.V.	DMT-DO-52-427 31.08.2021	EN 1634-3:2004
S2	DMT GmbH & Co. KG NB 2509	Kegro Deuren B.V.	DMT-DO-52-429 29.07.2021	EN 1634-3:2004
S3	DMT GmbH & Co. KG NB 2509	Kegro Deuren B.V.	DMT-DO-52-440 20.07.2021	EN 1634-3:2004

3.1.2 Test results of test reports according to EN 1634-3

Test report number Brief description of the test specimen	Parameter	results
(S1) DMT-DO-50-427 Double-leaved glazed wooden framed doorset in wooden block frame with a thickness of 54 mm, with an open clearance (W x H) of 2112 mm x 2397 mm and frame outside dimensions (W x H) of 2240 mm x 2490 mm. Tested from the opening and closing side/face	S _a – Smoke control at ambient temperature	0,61 m ³ /m/h
	S _m – Smoke control at a temperature of 200°C	8,98 m ³ /h
(S2) DMT-DO-50-429 Single-leaved glazed wooden framed doorset in wooden block frame with a thickness of 38 mm, with side- and transom panel, with an open clearance (W x H) of 1043 mm x 2385 mm and frame outside dimensions (W x H) of 1667 mm x 2967 mm. Tested from the opening and closing side/face	S _a – Smoke control at ambient temperature	0,25 m ³ /m/h
	S _m – Smoke control at a temperature of 200°C	12,47 m ³ /h
(S3) DMT-DO-50-440	S _a – Smoke control at ambient temperature	0,54 m ³ /m/h

<p>Single-leaved glazed wooden framed doorset in wooden block frame with a thickness of 39 mm, with an open clearance (W x H) of 1049 mm x 2400 mm and frame outside dimensions (W x H) of 1161 mm x 2454 mm. Tested from the opening and closing side/face</p>	<p>S_m – Smoke control at a temperature of 200°C</p>	<p>4,40 m³/h</p>
---	--	-----------------------------

The smoke protection tests of the reports S1 to S3 were tested according to the current standard EN 1634-3 edition 2004 and can therefore be used without restrictions.

3.2 Reports of extended application

Nr.	Test report no. dated	Name of Test Body Notified Body	Name of sponsor	Standard of extended application
E1	E-5041-DMT-DO 25.10.2022	DMT GmbH & Co. KG 2509	Kegro Deuren B.V.	EN 15269-20:2020

4 Classification and field of application

4.1 Reference of classification

This classification was carried out in accordance with EN 13501-2:2016, section 7.5.6.

4.2 Classification

The building component „KegaWood“ of Kegro Deuren B.V., may be classified according to the following combinations of performance parameters and classes as appropriate.

R	E	I	W	t	t	-	M	S	C	IncSlow	sn	ef	r
---	---	---	---	---	---	---	---	---	---	---------	----	----	---

Fire resistance classification:
S_a, S₂₀₀, C

C: only for single leave doorsets and the active leaf of double leafed doorsets

4.3 Field of application

This classification is valid for the following practical application (final application):

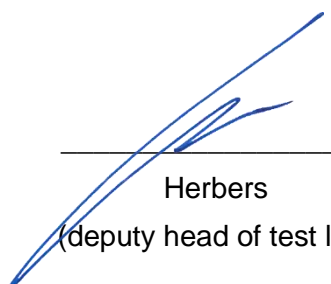
EN 16034


The scope of the classified component with direct and extended field of application is given in the test reports, the reports of extended application and the annexes 1 to 6.3 of this classification report.

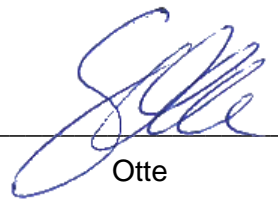
5 Limitations

This classification document does not represent type approval or certification of the product.

Lathen, 25.10.2022


Herbers
(deputy head of test lab)

A circular blue ink stamp with the text "DMT-Prüfstelle für Brandschutz" around the perimeter and the "DMT" logo in the center.


Otte
(case worker)

DMT GmbH & Co. KG

DMT-Test Laboratory for Fire Protection - Test Body for Fire Protection
Classification report K-5052-DMT-DO
25.10.2022



Annotations

Documents without stamp and sign have no validity. The cover page and the sign page of this document are signed with the stamp.

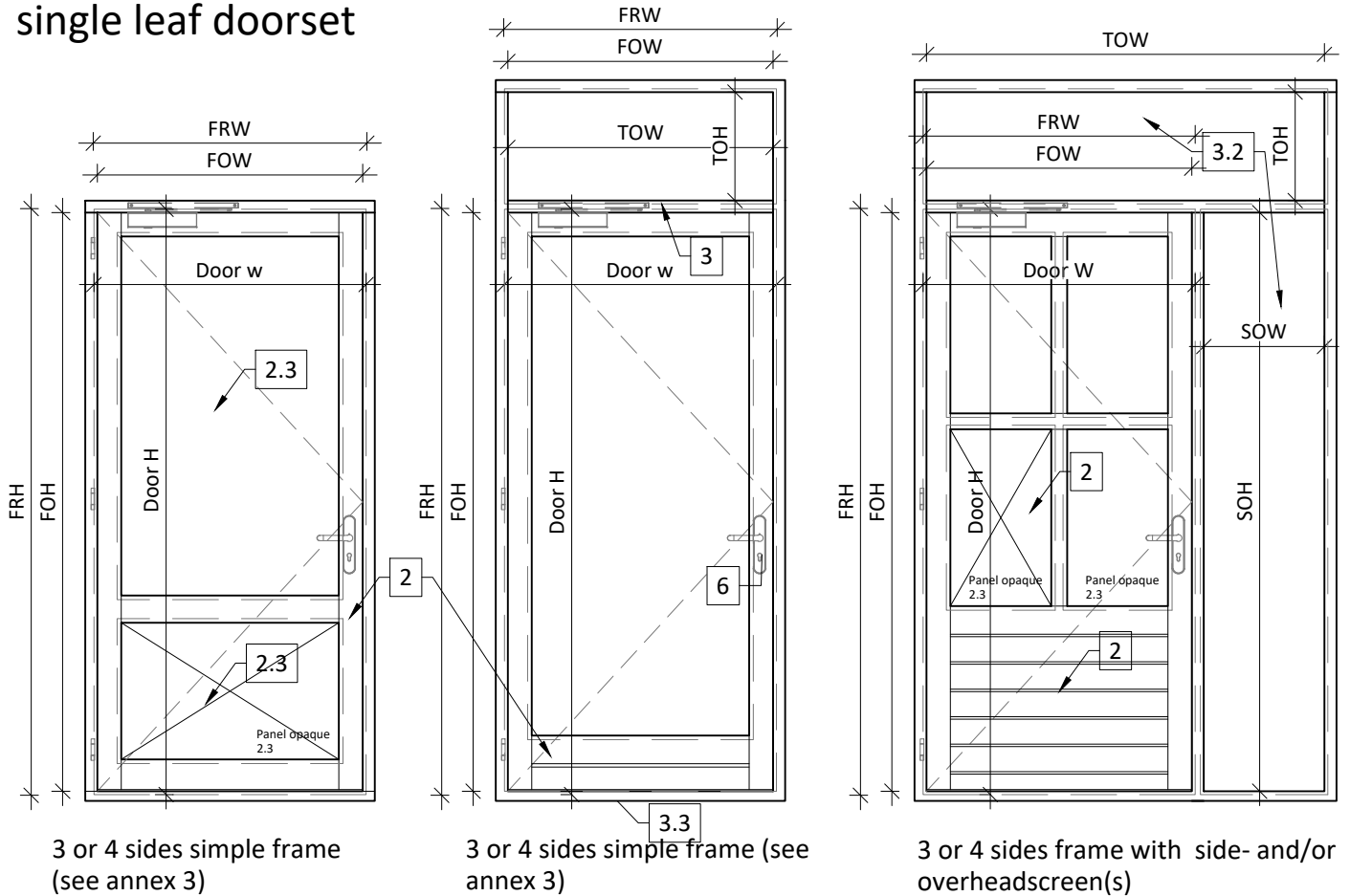
This classification report has to be used and reproduced unchanged and entirely only. Extracts or abridgements are subjected to a written permission by DMT GmbH & Co. KG, Test Body for Fire Protection.

This classification report was delivered with 2 copies.

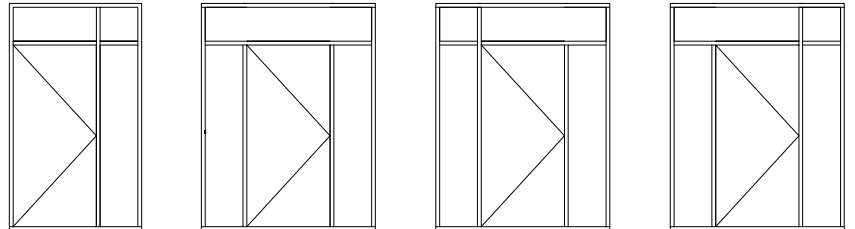
A publication requires the written approval of DMT GmbH & Co. KG, Test Body for Fire Protection.

Translations of this classification report have to include the annotation „Translation of the german original version not proven by DMT GmbH & Co. KG, Test Body for Fire Protection“. In cases of doubt the german original version of the report is valid.

1.0 Overview of doorset configuration and sizes single leaf doorset

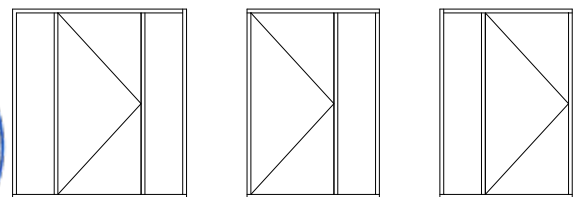
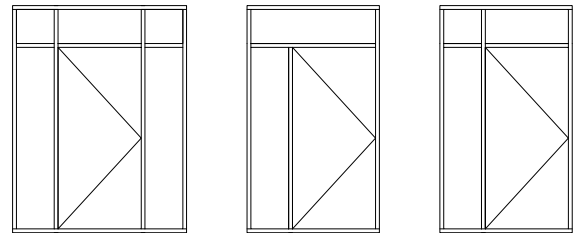


Additional configurations,
sizes accordingly



Allowable size for single door sets

	Width (mm)	Height (mm)	Area (m ²)
Doorleaf S_a / S_{200}	≤ 1067	≤ 2405	≤ 2.57
Frame opening size S_a / S_{200}	≤ 1049	≤ 2400	≤ 2.52
Frame rebate size S_a / S_{200}	≤ 1073	≤ 2412	≤ 2.59
Toplight opening size S_a	≤ 3118	≤ 900	
Toplight opening size S_{200}	≤ 2559	≤ 900	
Sidescreen opening size S_a	≤ 900	≤ 3582	
Sidescreen opening size S_{200}	≤ 900	≤ 3382	



Doorleaf type KegaWood for single doorsets

- thickness ≥ 38mm
- wood species hardwood ≥ 550 kg/m³
- thickness ≥ 54mm
- wood species softwood ≥ 450 kg/m³



FRH: Frame rebate height
FOH: Frame opening height
TOH: Top light opening height
SOH: Sidescreen opening height
FRW: Frame rebate width
FOW: Frame opening width
TOW: Top light opening width
SOW: Sidescreen opening width

Overview single doorset

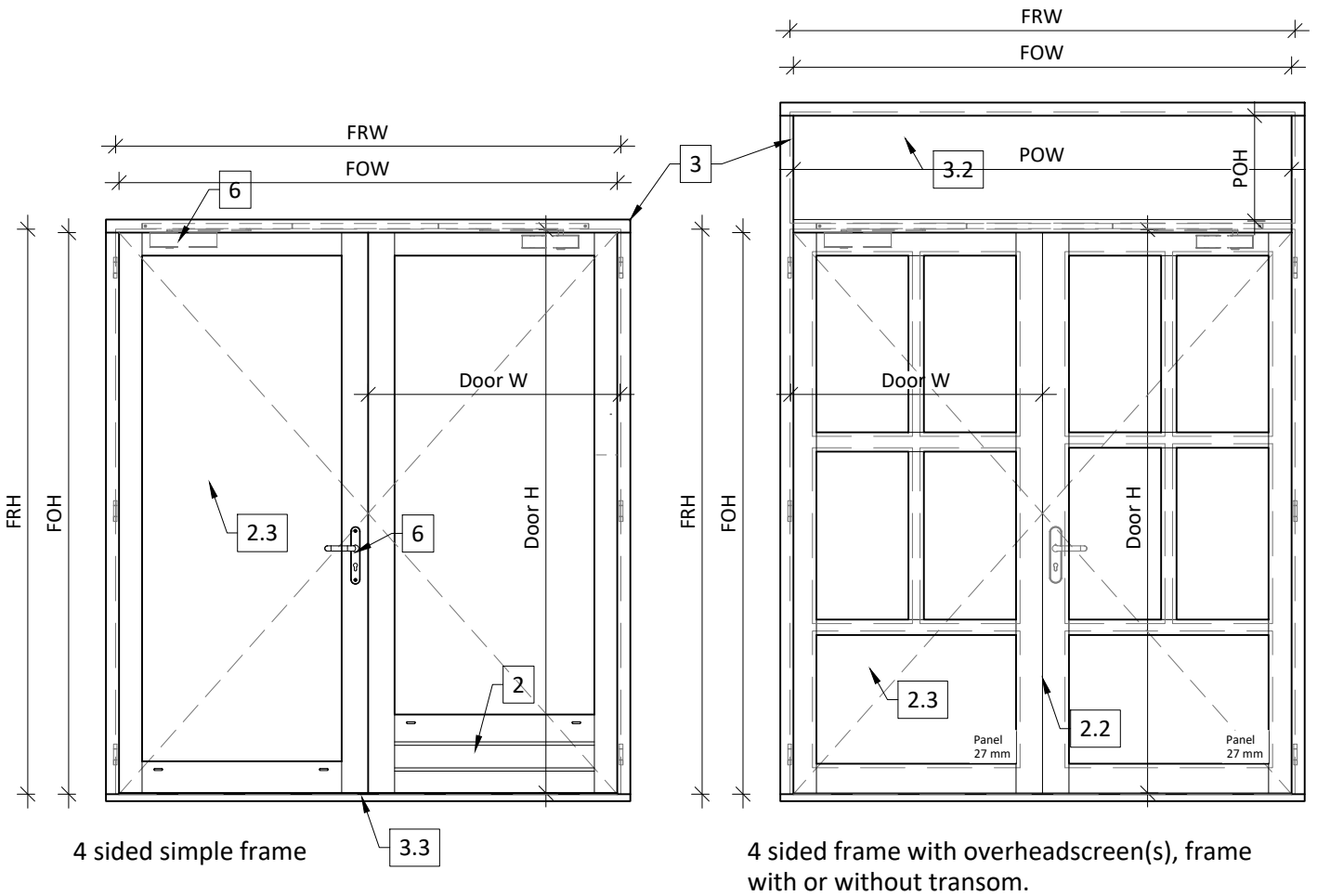
annex 1.0

DMT GmbH & Co. KG
Plant for Product Safety
Test Body for Fire Protection

test report no.
K-5052-DMT-DO

1.1 Overview of doorset configuration and sizes

Double leaf doorset



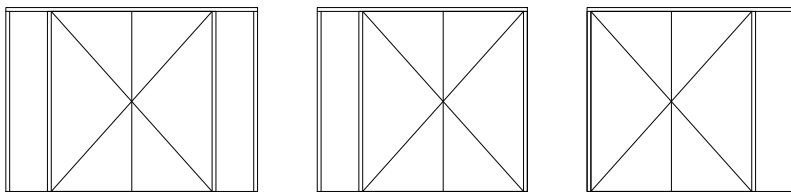
Allowable size for double doorsets

	Width (mm)	Height (mm)	Area (m ²)
Active doorleaf S_a / S_{200}	≤ 1067	≤ 2405	≤ 2.57
Passive doorleaf S_a / S_{200}	≤ 1082	≤ 2405	≤ 2.60
Frame opening size S_a / S_{200}	≤ 2112	≤ 2400	≤ 5.08
Frame rebate size S_a / S_{200}	≤ 2142	≤ 2412	≤ 5.17
Toplight opening size S_a / S_{200}	≤ 2112	≤ 900	
Side screen opening size S_a / S_{200}	≤ 900	≤ 2400	

- Doorleaf type KegaWood for single doorsets
- thickness ≥ 54mm
 - wood species softwood ≥ 450 kg/m³



Additional configurations, sizes accordingly



Fabricated by: **KEGRO DEUREN**

FRH: Frame rebate height
 FOH: Frame opening height
 TOH: Top light opening height
 SOH: Sidescreen opening height
 FRW: Frame rebate width
 FOW: Frame opening width
 TOW: Top light opening width
 SOW: Sidescreen opening width

Double doorset overview	annex 1.1
DMT GmbH & Co. KG Plant for Product Safety Test Body for Fire Protection	test report no. K-5052-DMT-DO

1.3 Basic principle option horizontal sections of double doorsets with or without sidescreen



Details see Annex:

2. Doorleaf construction

- 2.1. Edge profiles and rebates
- 2.2. Meeting edge double doors
- 2.3. Glass/panel fitting
- 2.4. Mouldings
- 2.5. Kick plates

3. Frame construction

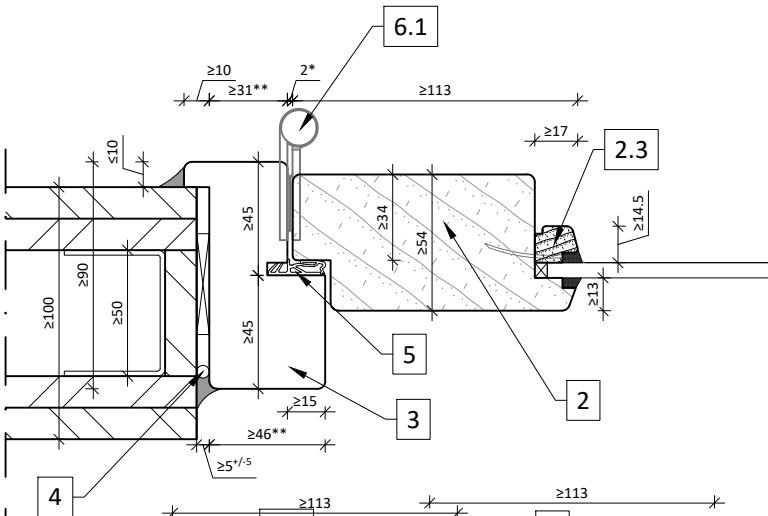
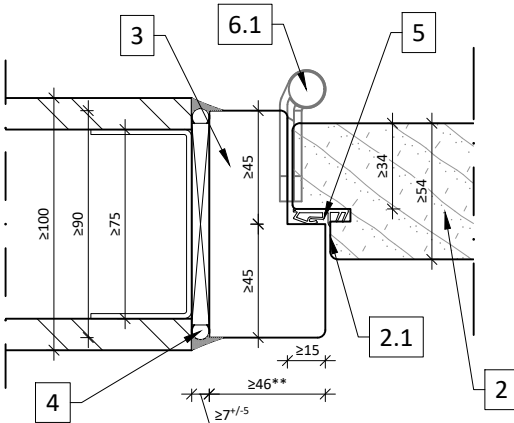
- 3.1. Rebates
- 3.2. Side and overhead panels
- 3.3. Tresholds

4. Wall-Frame meeting edge and fixation

5. Seals

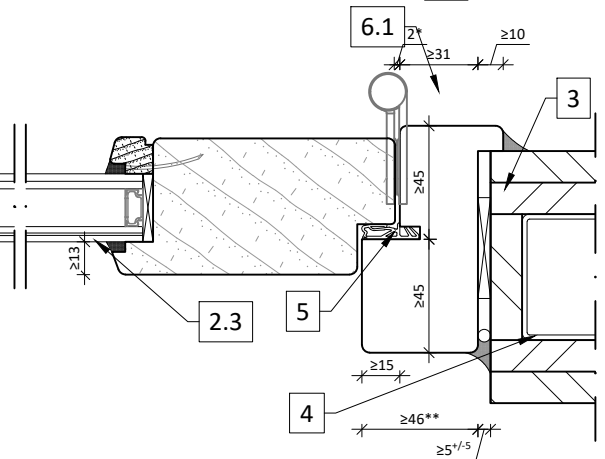
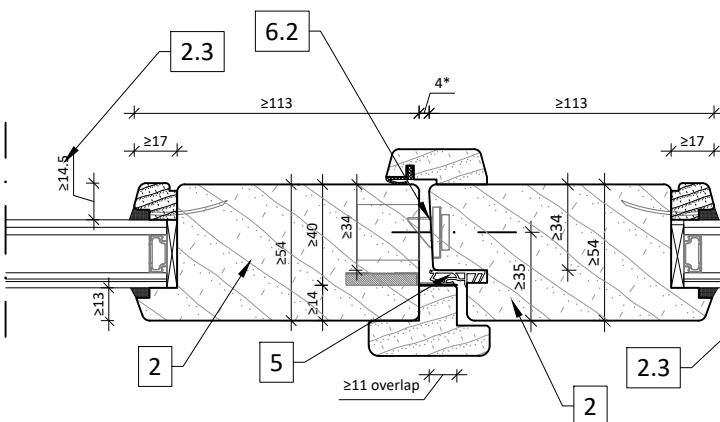
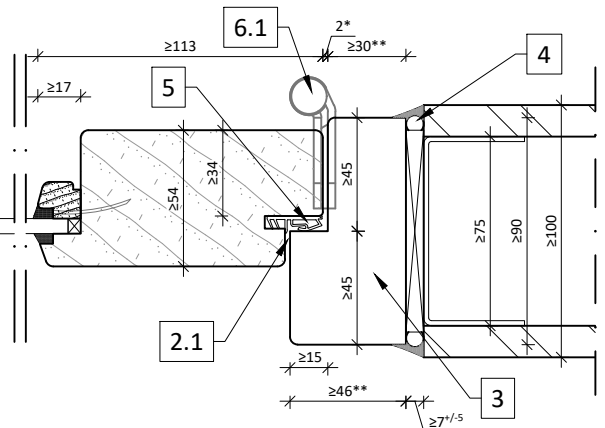
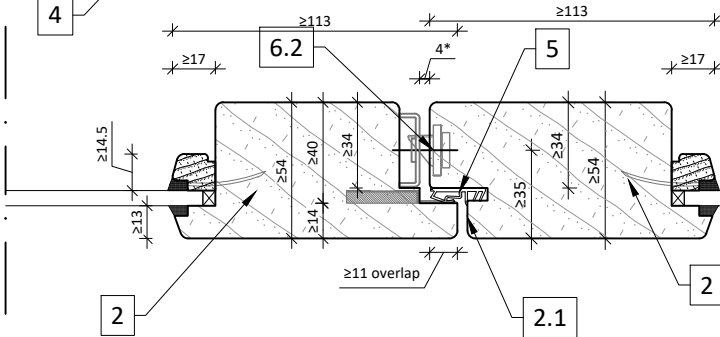
6. Door hardware

- 6.1. Hinges
- 6.2. Locks
- 6.3. Doorclosers



*Gap size	Nominal (mm)	Max (mm)
Hinge side edge	2	≤ 4
Meeting edge	4	≤ 4.5

** : Blockframe width max 300mm



Horizontal section double leaf doorset	annex 1.3
DMT GmbH & Co. KG Plant for Product Safety Test Body for Fire Protection	test report no. K-5052-DMT-DO

1.4 Basic principle vertical sections of doorsets with or without topscreen



Details see Annex:

2. Doorleaf construction

- 2.1. Edge profiles and rebates
- 2.2. Meeting edge double doors
- 2.3. Glass/panel fitting
- 2.4. Mouldings
- 2.5. Kick plates

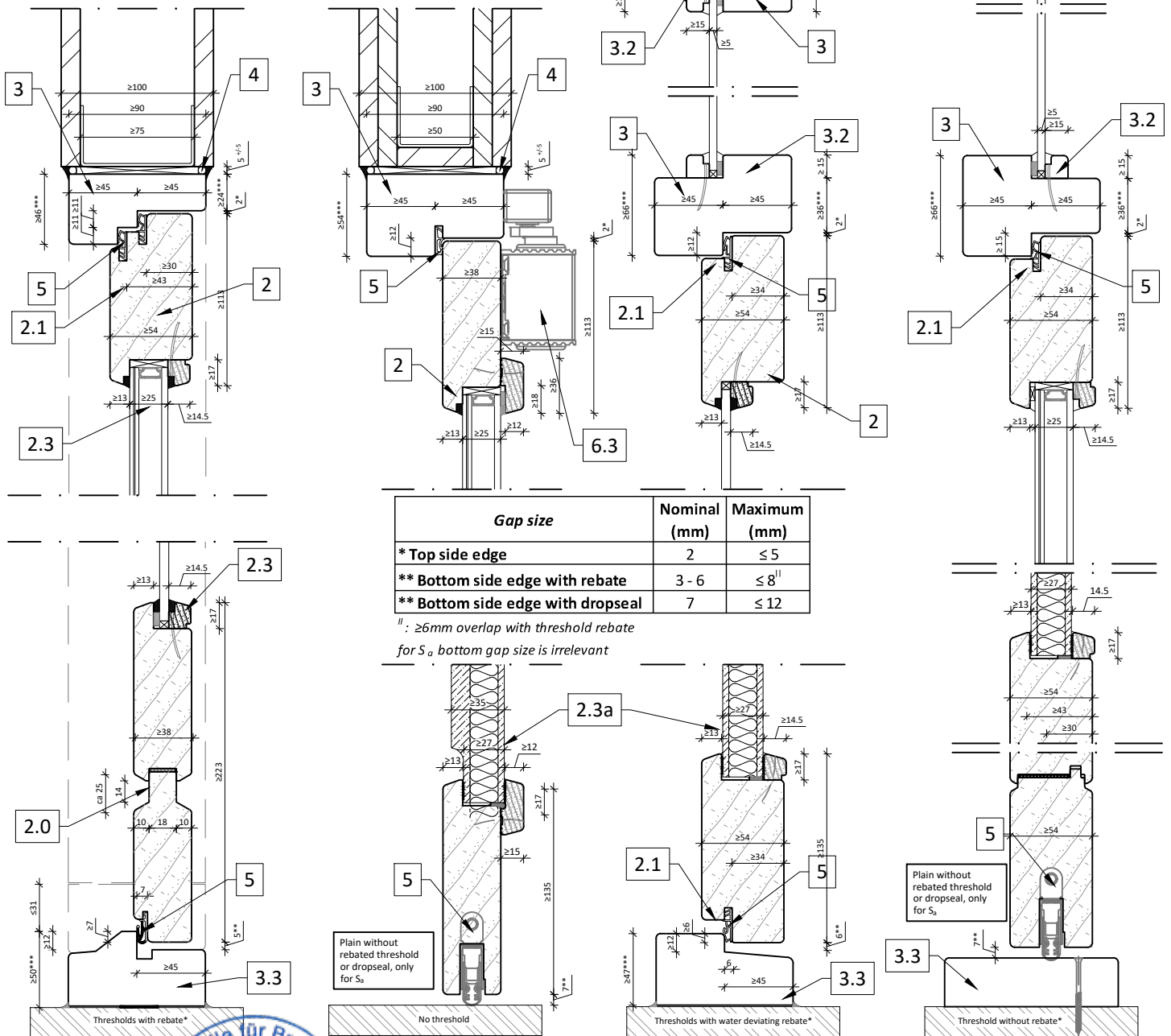
3. Frame construction

- 3.1. Rebates
- 3.2. Side and overhead panels
- 3.3. Thresholds

4. Wall-Frame meeting edge and fixation

5. Seals

- 6.1. Hinges
- 6.2. Locks
- 6.3. Doorclosers



Gap size	Nominal (mm)	Maximum (mm)
* Top side edge	2	≤ 5
** Bottom side edge with rebate	3 - 6	≤ 8 ^{II}
** Bottom side edge with dropseal	7	≤ 12

^{II}: ≥6mm overlap with threshold rebate
for S_a bottom gap size is irrelevant

*** Blockframe width max 300mm



1.5 Basic principle vertical sections of sidescreens with or without transom

Details see Annex:

2. Doorleaf construction

- 2.1. Edge profiles and rebates
- 2.2. Meeting edge double doors
- 2.3. Glass/panel fitting
- 2.4. Mouldings
- 2.5. Kick plates

3. Frame construction

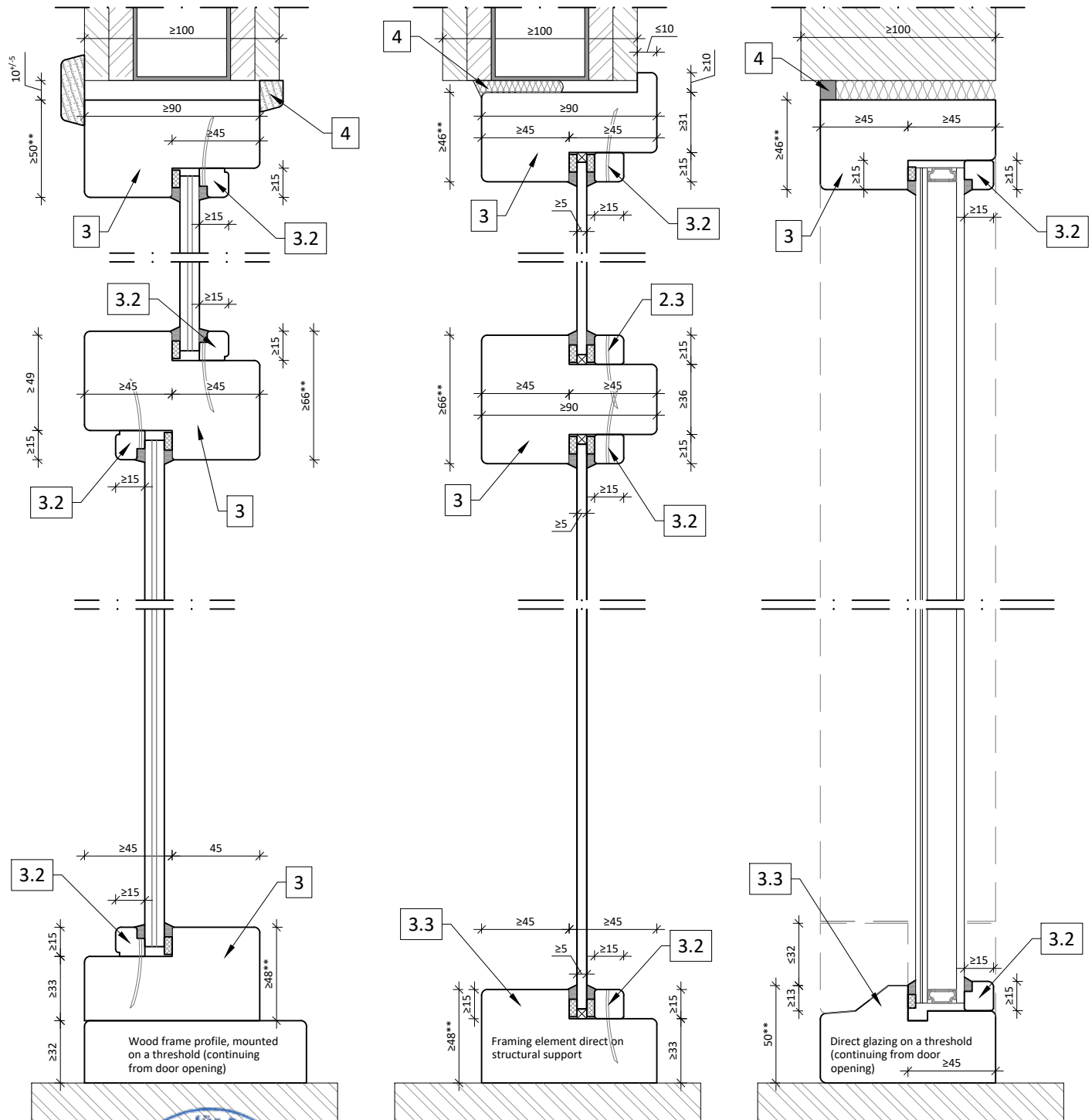
- 3.1. Rebates
- 3.2. Side and overhead panels
- 3.3. Thresholds

4. Wall-Frame meeting edge and fixation

5. Seals

6. Door hardware

- 6.1. Hinges
- 6.2. Locks
- 6.3. Doorclosers



** Blockframe width max 300mm



Vertical section sidescreens

annex 1.5

DMT GmbH & Co. KG
Plant for Product Safety
Test Body for Fire Protection

test report no.
K-5052-DMT-DO

2.0 - Doorleaf construction S_a + S₂₀₀

Additional details to doorleaf see

Annex:

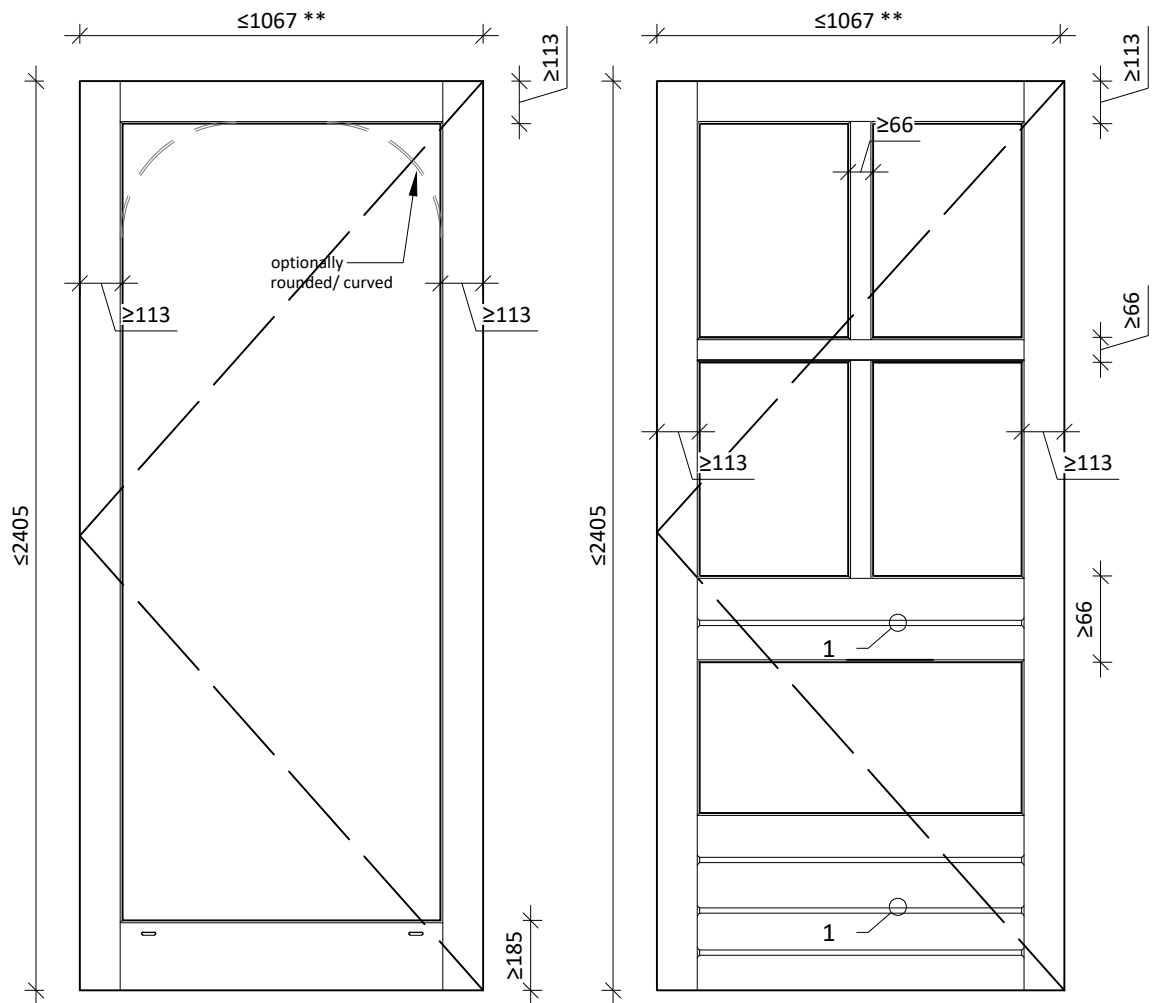
2.1 Edge profiles and rebates

2.2 Double door meeting edge

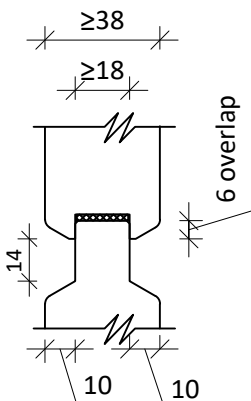
2.3 Glass fitting

2.4 Decorative mouldings

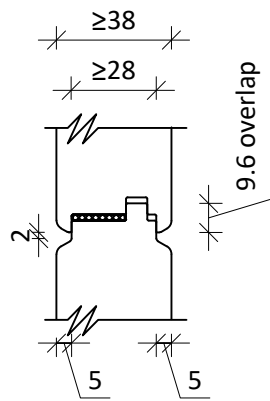
2.5 Kickplates



1: coup[ling detail options:



Standard rebate for stacking rail system. Effective overlap 6mm.



LX rebate for stacking rail system. Effective overlap 9.6mm.

** maximum doorleaf width in case of passive doorleaf double doorset 1087mm

Doorleaf construction in wood species depending on doorleaf thickness:

38mm door thickness: Hardwood $\geq 550 \text{ kg/m}^3$

≥54mm door thickness: Softwood or hardwood $\geq 450 \text{ kg/m}^3$

Wood can be either solid, solid-fingerjoint, or fingerjoint laminated.

All models possible providing minimum stile, headrail, intermediate rail(cross) and breast height dimension as illustrated above.



Doorleaf construction S_a + S₂₀₀

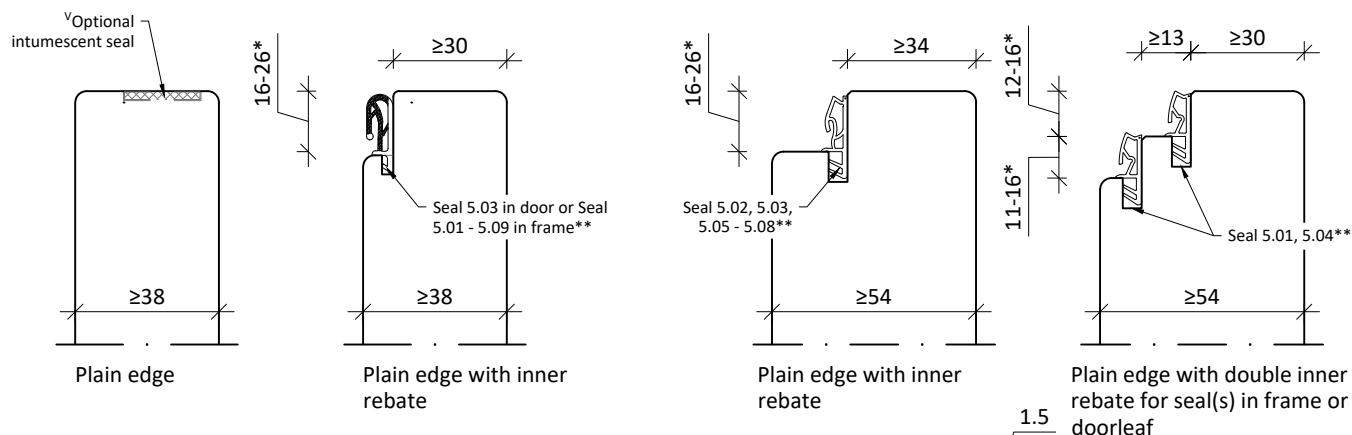
annex 2.0

DMT GmbH & Co. KG
Plant for Product Safety
Test Body for Fire Protection

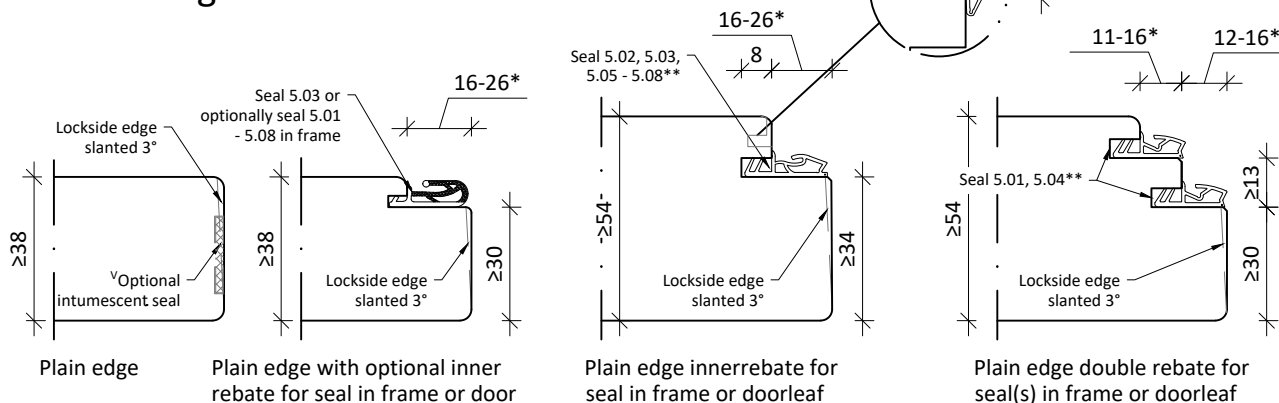
test report no.
K-5052-DMT-DO

2.1 Profiles for door-Frame meeting edge rebate

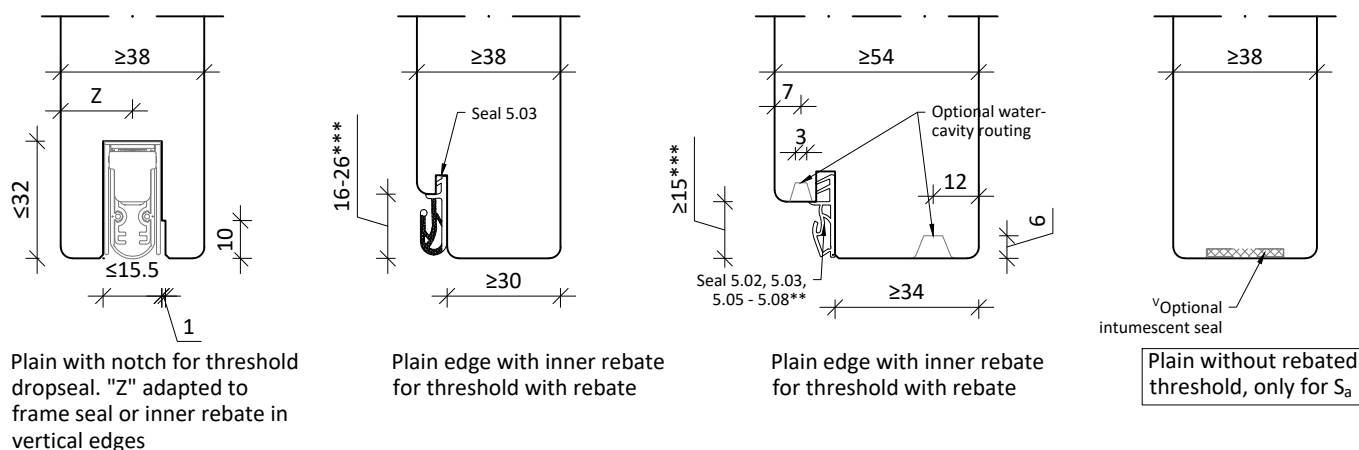
Head of door



Vertical edges



Bottom edges



*: width of rebate to be in relation to frame rebate. Frame rebate +1mm is door rebate.

** : Seal optionally in frame. Notch for seal in door optionally omitted in such a case.

***: width of rebate underside of door to be in relation to threshold rebate. Threshold rebate - door rebate = ≤ 3

∇ : All edges can optionally contain an exposed or concealed intumescent seal (fire door situation)



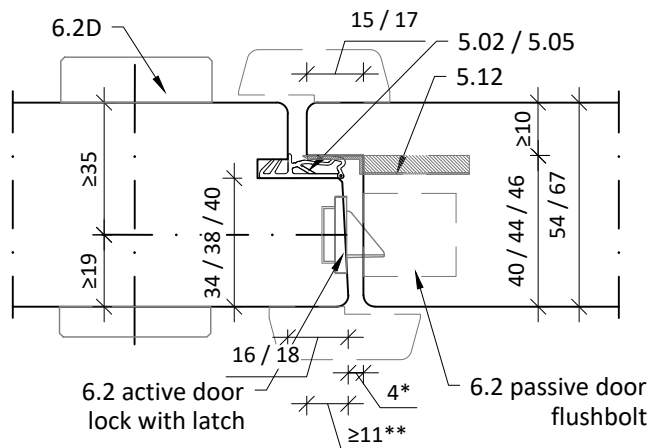
Edge profiles and rebates doorleaf

annex 2.1

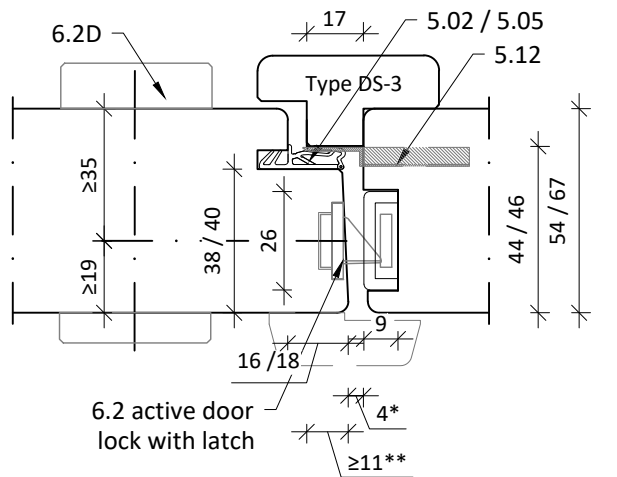
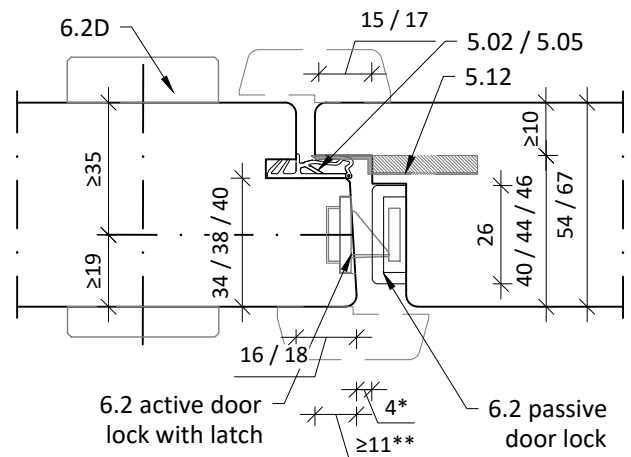
DMT GmbH & Co. KG
Plant for Product Safety
Test Body for Fire Protection

test report no.
K-5052-DMT-DO

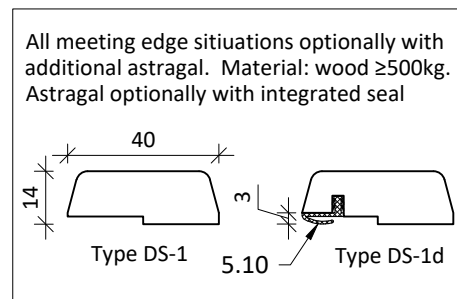
2.2 Profiles for double doorset meeting edge



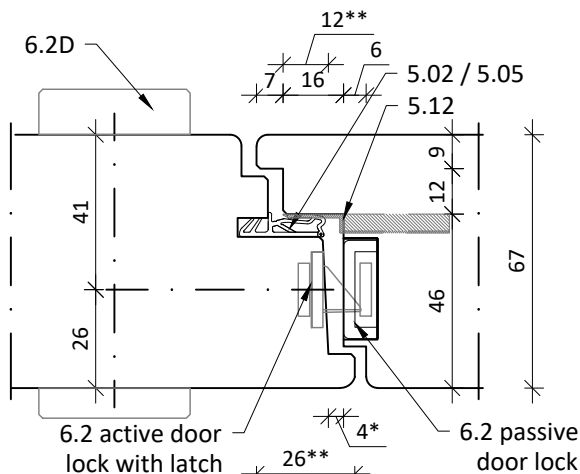
meeting edge detail 54-S01 + 54-S03



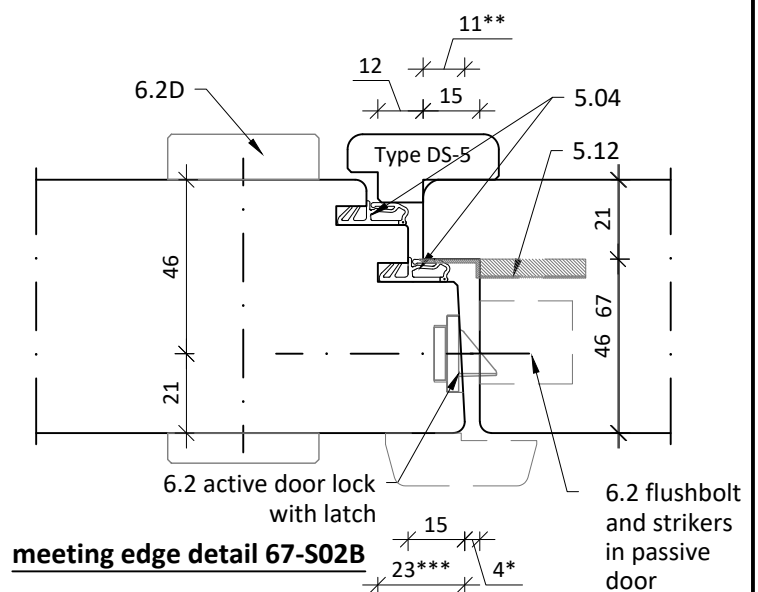
meeting edge detail 54-S02



in all cases additional intumescent seals for fire doors can be added in the meeting edge profile



meeting edge detail 67-S01



meeting edge detail 67-S02B

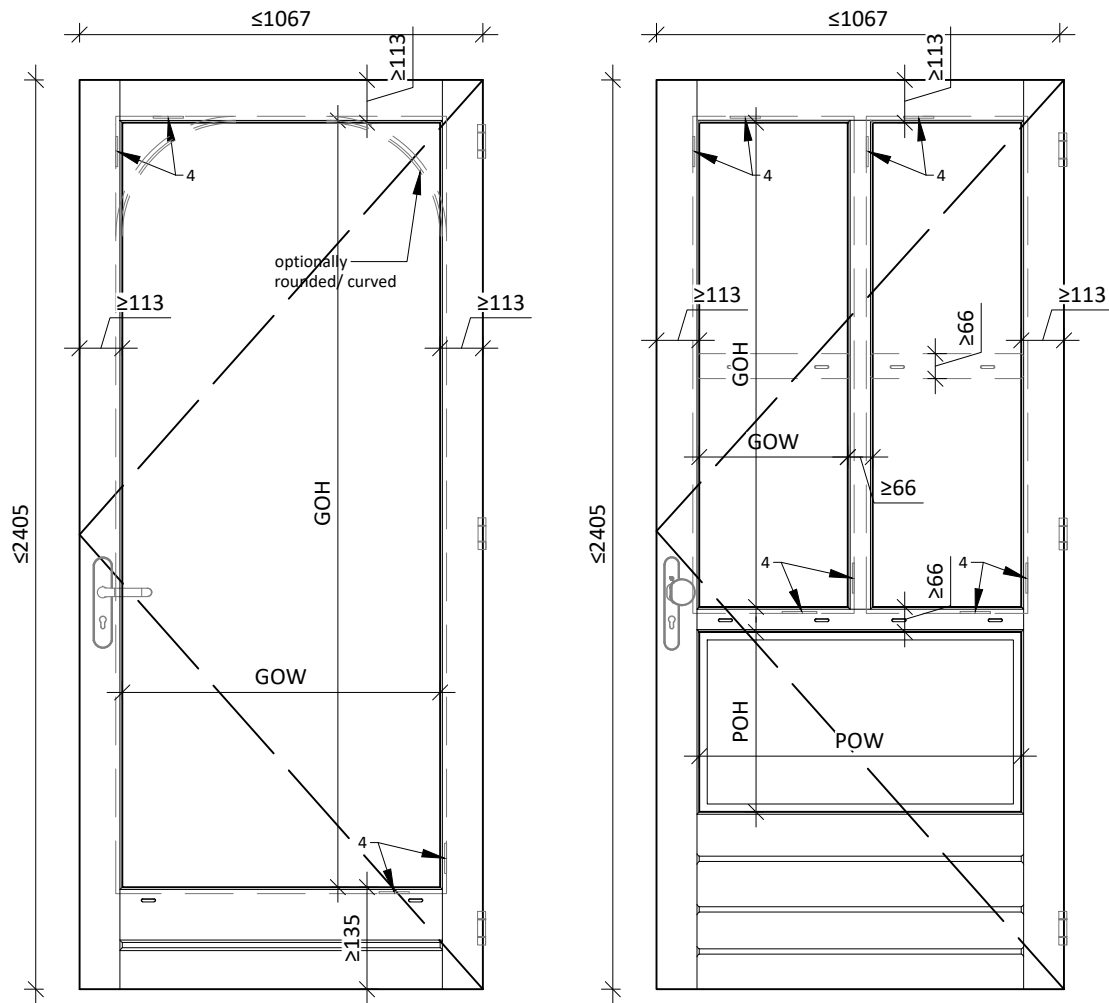
*: Nominal gap deviation $\pm 1 / -2$ mm
 **: Effective overlap active on passive leaf
 ***: Total overlap active on passive leaf



Double door meeting edges	annex 2.2
DMT GmbH & Co. KG Plant for Product Safety Test Body for Fire Protection	test report no. K-5052-DMT-DO

2.3 Glazing and opaque panel fitting

Doorleaf construction according annex 2.0



Large glass/panel opening doors

Doors with (multiple) glass/panel openings

Single glass opening or multiple glazings fitted possible.
 Maximum sizes and glass types see table below
 Minimum size 150 x 150 mm or 0.0225m² area
 Glass fitting detail see annex 2.3a

Index:

GRW: glazing rebate width
 GOW: glazing opening width
 GRH: glazing rebate height
 GOH: glazing opening height
 POW: panel opening width
 POH: panel opening height

4. Glazing setting block position, see 2.3a

Glastype*	Thickness (mm)	Width (mm)	Height (mm)	Area (m ²)
Tempered	≥ 5	≤ 865	≤2181	≤ 1.887
Laminated	≥ 6	≤ 865	≤2181	≤ 1.887
IGU-1 float**	≥ 18	≤ 779	≤ 480	≤ 0,38
IGU safety***	≥ 18	≤ 865	≤2181	≤ 1.887
Panel****	≥ 26.5	≤ 865	≤2181	≤ 1.887

- * Fire rated glass or glass that will not fracture at temperatures up to 200 °C are also possible
- ** Insulated glass unit, double or triple, with at least 1 sided tempered and/or laminated glass
- *** Insulated glass unit, double or triple, with 2 sided tempered and/or laminated glass.
- **** Opaque woodbased sandwich panel. >26.5mm thickness. Construction see annex 2.3a



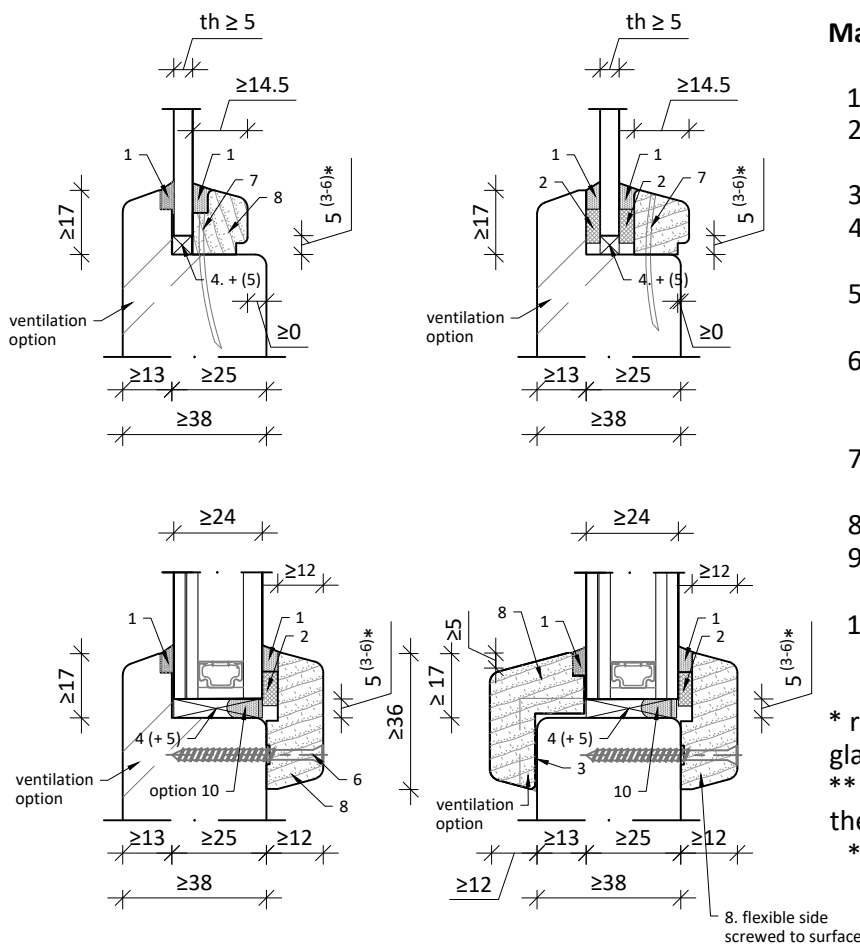
Doorleaf glazing overview

DMT GmbH & Co. KG
 Plant for Product Safety
 Test Body for Fire Protection

annex 2.3

report no.
 K-5052-DMT-DO

2.3a Glass fitting in doorleaf



Materials:

1. Glazing sealant silicon based o.e.
2. PE foam backing or Ceramic backing size $4^{+/-1}x \geq 9$ mm
3. Glued and sealed
4. Setting blocks, PVC of Fitherm SB (for fire doors)
5. Optional: Fitherm GB Intumescent 0.8 x 10 mm or 0.8 x 20 mm in glass base
6. Glass bead screw $\varnothing 3.5 \times 40$ mm, distance 50^{+25} mm from corner and ≤ 250 mm apart
7. Steel nail 1.2 x 30 mm distance 50 mm from corner and ≤ 150 mm apart.
8. Glass bead hardwood
9. Optionally ventilation ducts 40x8mm, $50^{+/-} 25$ mm from glass corner
10. Optional 4-sided (water)seal in glass base with 1.

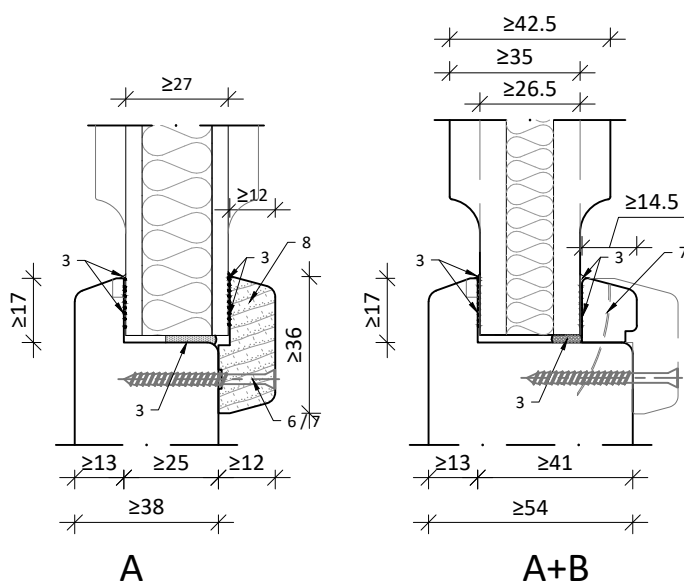
* resulting effective rebate depth ≥ 12 mm for glass and ≥ 15 mm for panels

** Effectice depth of glass bead is the result of the glass- and door thickness

*** All glass beads optionally as enlarged timber moulding

2.3a Panel fitting in doorleaf

Optionally glasbead screw fixed on both sides, combined with 10. only.



Panel type:

- A. NON-Fire resistant doors:
 - MDF / HDF / Tricoya insulated sandwich panel, thickness ≥ 27 mm. optionally with single or double sided moulded rebate edge and or moulded grooves (see annex 2.4)
- B. Panel for fire resistant doors according K-5045-DMT-DO
 - MDF/HDF/Tricoya insulated EW/EI30 opaque panel.
 - Thickness ≥ 42.5 mm at moulded rebate edge ≥ 26.5 mm



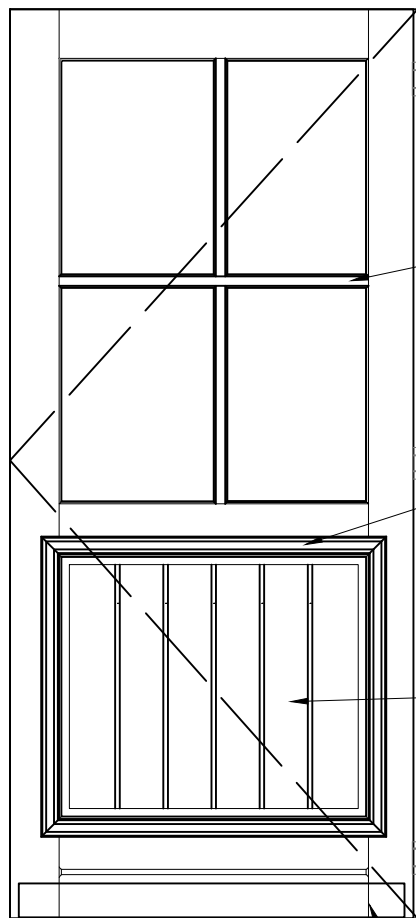
Doorleaf glass fitting detail

DMT GmbH & Co. KG
Plant for Product Safety
Test Body for Fire Protection

annex 2.3a

report no.
K-5052-DMT-DO

2.4 doorleaf decorative mouldings



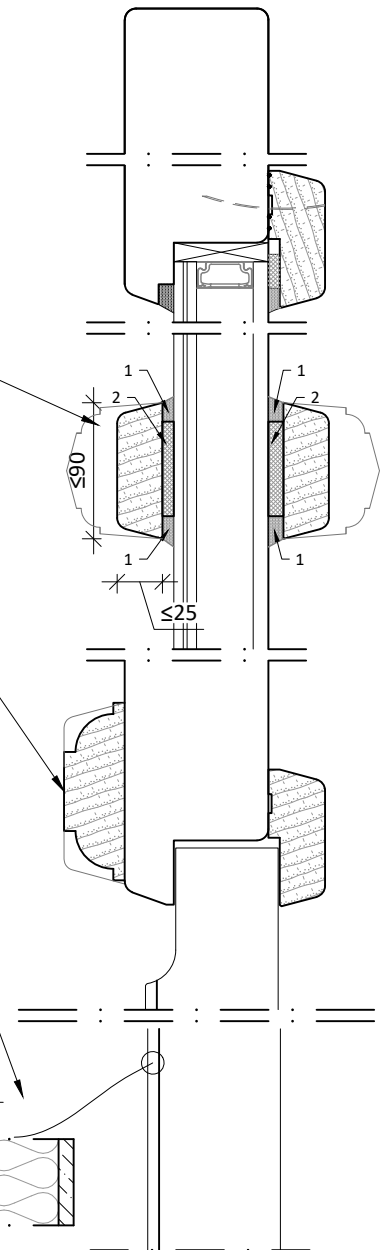
- 1: glass sealant (silicon based)
- 2: PE cellular foam, optionally 2-sided self adhesive

Decorative moulded beads on the glass surface

Decorative moulded beads on the doorleaf glued and or nailed to surface

Decorative moulded grooves in the panels (only with 12mm outer panelsheet thickness)

Wooden weather bar on opening face. Glued and nailed to surface.



Doorleaf with 1 or 2 sided wooden* decorative mouldings panels and beads.
No size limitations to beads regarding S_a/S_{200}

* solid wood or woodbased panel products



Doorleaf mouldings

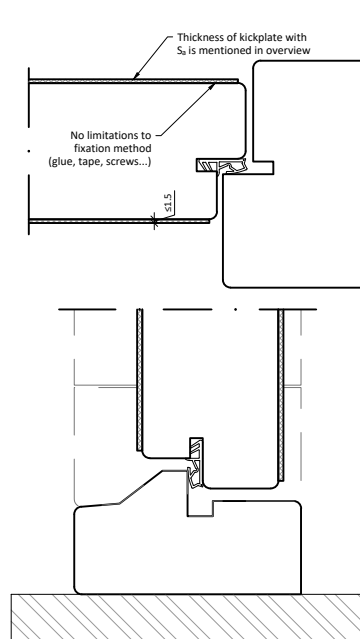
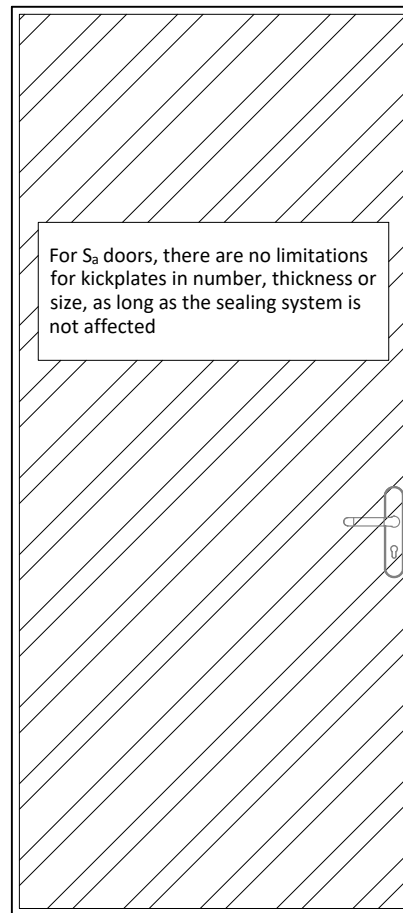
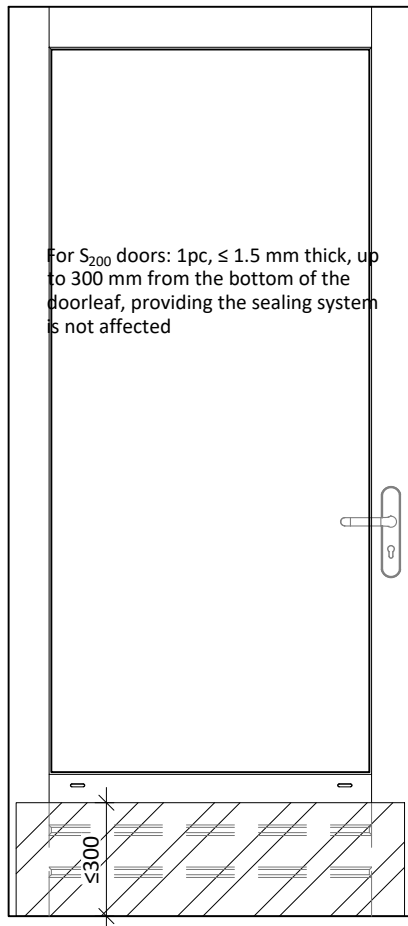
DMT GmbH & Co. KG
Plant for Product Safety
Test Body for Fire Protection

annex 2.4

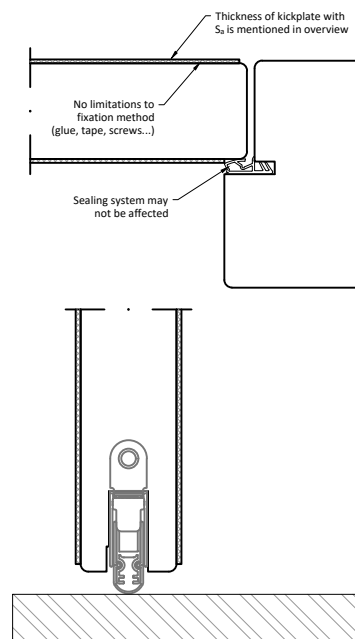
report no.
K-5052-DMT-DO

2.6 Kickplates on doorleaf

Limitations regarding face fixed protective elements (kickplates)



Plain edge, with innerbeate, seal in doorleaf.



Plain edge, seal in frame
Dropseal at the bottom



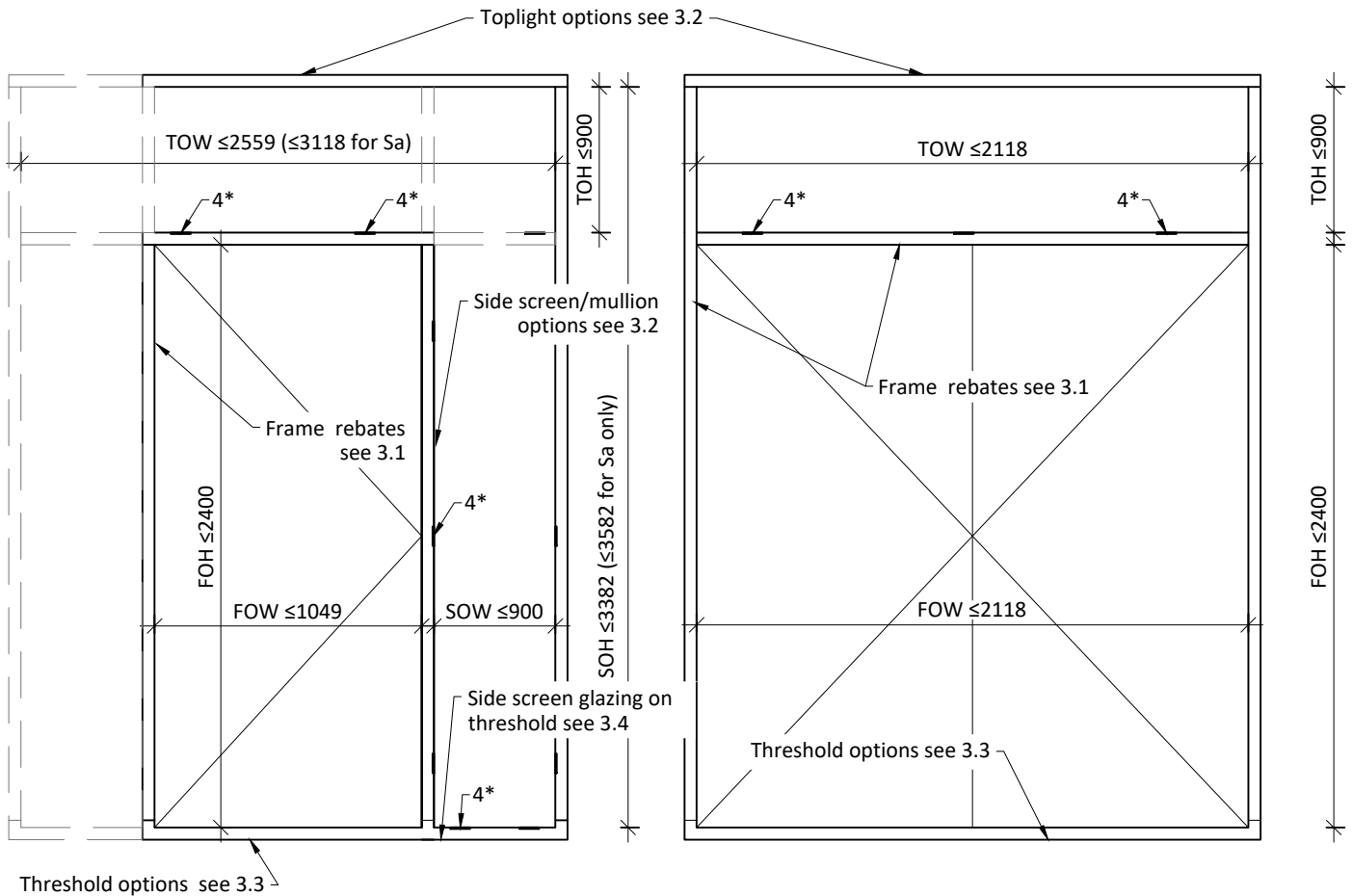
Protective plates

DMT GmbH & Co. KG
Plant for Product Safety
Test Body for Fire Protection

annex 2.5

report no.
K-5052-DMT-DO

3 Frame construction



Sizes are opening sizes, considering maximum area see annex 1.0 and 1.1

Side and overhead glazing panels see annex 3.2 for details of fixing and rebates.

Overhead top light glazing type and allowed glass sizes

Glastype	Th. (mm)	Width (mm)	Height (mm)
SGU Tempered	≥5	S _a ≤ 3118 S ₂₀₀ ≤ 2559 DL* ≤ 2112	S _a ≤ 900 S ₂₀₀ ≤ 900
SGU laminated, ≥1 PVB layer	≥6		
SGU fire, such as: Pyrodur plus 30-106, Pyrodur 30-203 Pyrobelite 9/10/12	≥7		

Wooden timber frames

- wood species soft- or hardwood ≥500kg/m³

Corner joint connections:

- Butt jointed with ≥2pc dowels hardwood ≥Ø14x80
- Mortise and tenon
- Glued with "0819 kozijnlijm" o.e.

Meeting edge with support construction and fixation see annex 4

4*: position of setting blocks glazing. See annex 3.2. Vertical setting blocks generally in area of lock points and hinges.

Sidescreen glazing type and allowed glass sizes

Glastype	Th. (mm)	Width (mm)	Height (mm)
SGU Tempered	≥5	S _a ≤ 900 S ₂₀₀ ≤ 900	S _a ≤ 3582 S ₂₀₀ ≤ 3382 DL* ≤ 2400
SGU laminated, ≥1 PVB layer	≥6		
SGU fire, such as: Pyrodur plus 30-106, Pyrodur 30-203 Pyrobelite 9/10/12	≥7		

FOH: Frame opening height
TOH: Top light opening height
SOH: Sidescreen opening height
FOW: Frame opening width
TOW: Top light opening width
SOW: Sidescreen opening width



* DL size S₂₀₀ or S_a in case of double leaf door

** DGU or TGU ISO-glass configurations with at least 1 glass pane as listed above

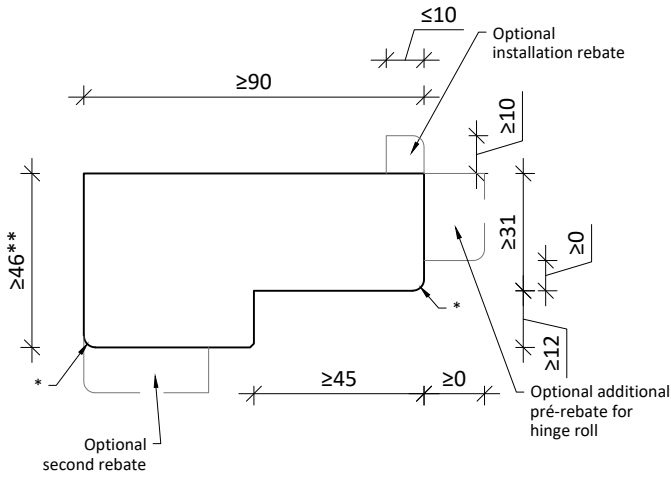
Frame construction and sizes overview

DMT GmbH & Co. KG
Plant for Product Safety
Test Body for Fire Protection

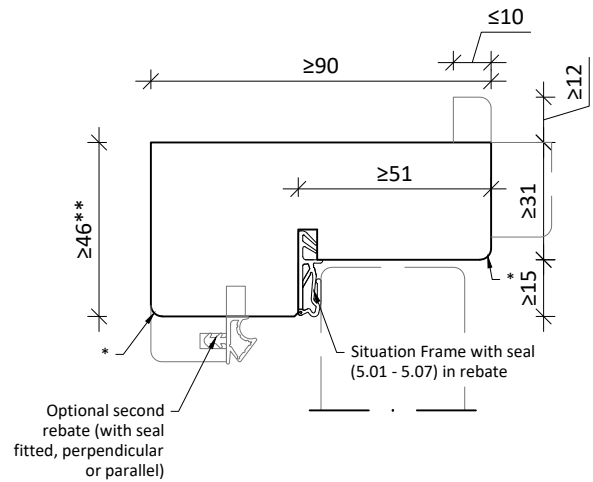
annex 3.0

report no.
K-5052-DMT-DO

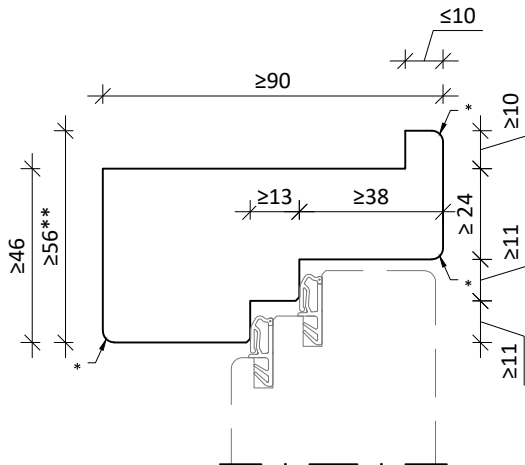
3.1 Doorframe rebates



Door frame situation for doorleaf with draught seal incorporated in doorleaf or side/overhead glazing

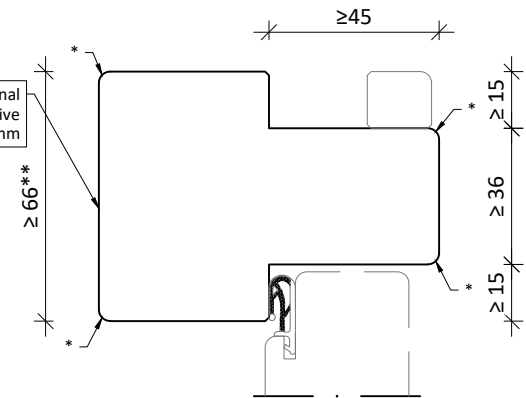


Door frame situation for doorleaf with rebate without draught seal in doorleaf.

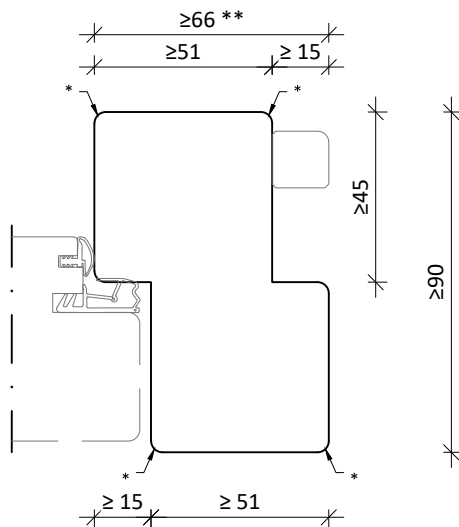


Door frame situation for doorleaf with double draught seal incorporated in doorleaf.

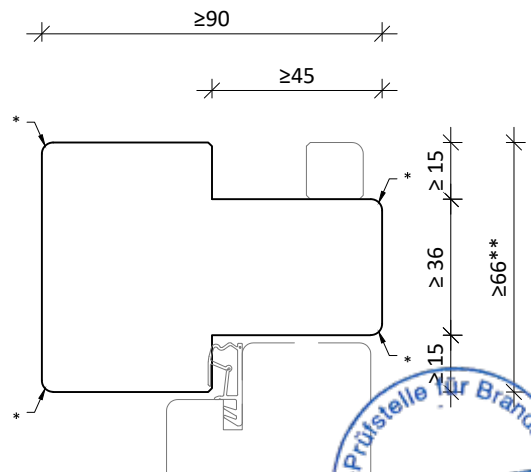
frame surface optional covered with decorative veneer ≤ 3mm or HPL ≤ 1mm



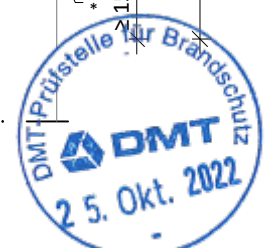
Door frame transom overhead screen situation.



Door frame transom sidescreen situation, rebate opposite side.



Door frame transom overhead screen situation, rebate same side.

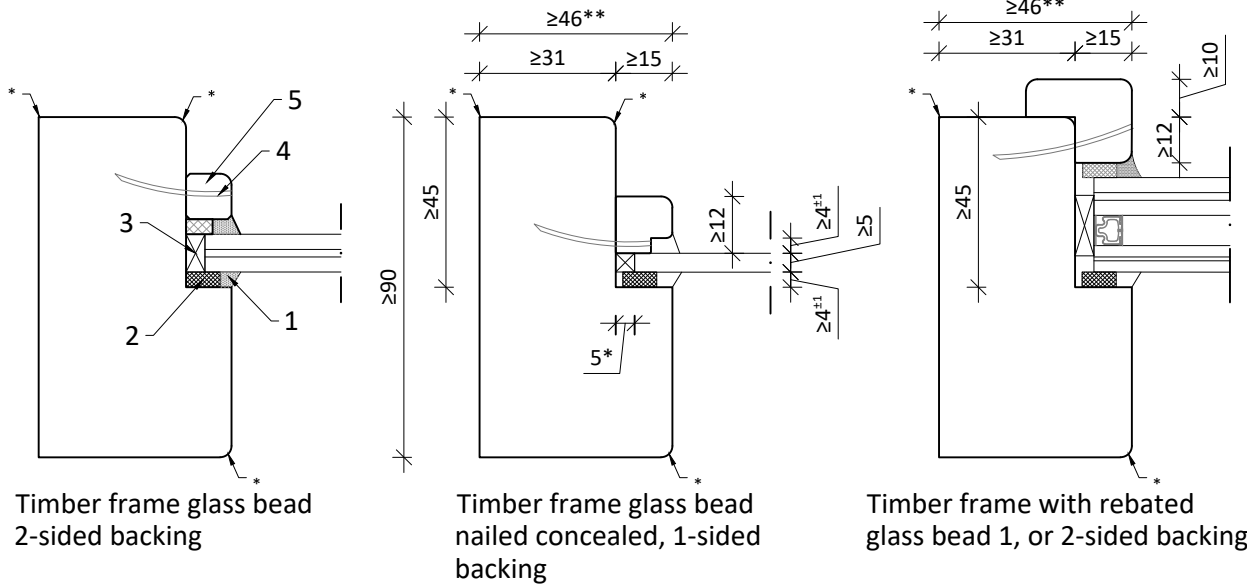


*: all edges chamfered ≤ 3 , Radius ≤ 5 , or square.
 **: block frame width max 300mm

Doorframe rebates DMT GmbH & Co. KG Plant for Product Safety Test Body for Fire Protection	annex 3.1 report no. K-5052-DMT-DO
--	--

3.2 Doorframe glazing

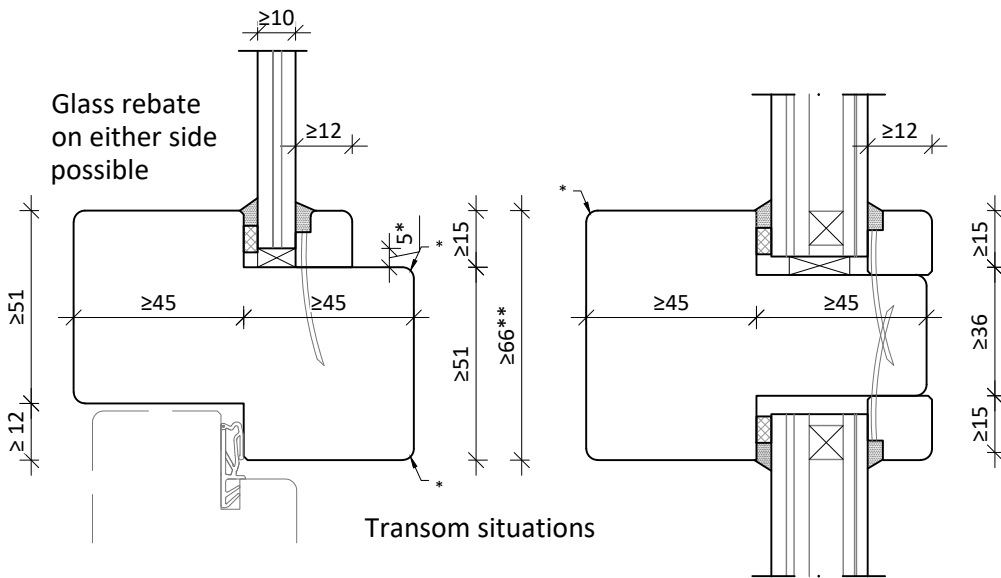
Glass with frame rebate overlap to be $12^{+/-1}$ mm in sidescreens and $10^{+/-1}$ mm in toplight



Timber frame glass bead 2-sided backing

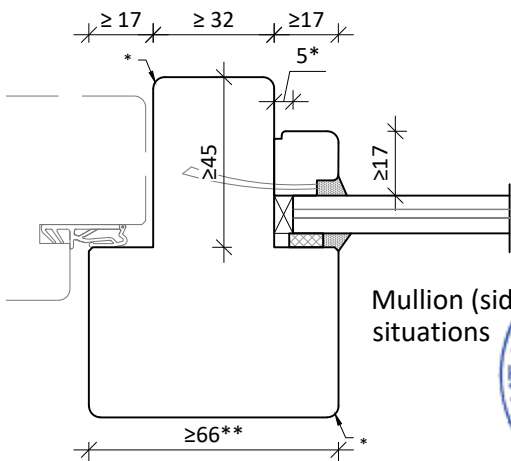
Timber frame glass bead nailed concealed, 1-sided backing

Timber frame with rebated glass bead 1, or 2-sided backing



Glass rebate on either side possible

Transom situations



Mullion (sidescreen) situations

Glass type and allowed sizes see annex 3.0

Materials:

1. Glazing sealant silicon based o.e.
2. Ceramic backing size $4^{+/-1} \times \geq 9$ mm
3. Setting blocks Fitherm SB o.e.
4. Steel nail 1.2x30mm or screw $\varnothing 3.5 \times 40$ distance $50^{+/-10}$ mm from corner and ≤ 200 mm apart.
5. Glass bead soft or hardwood ≥ 500 kg/m³

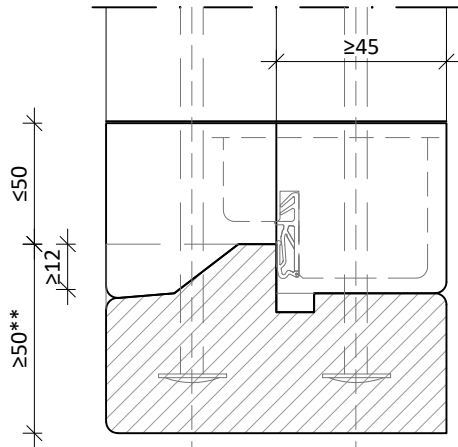
Fitherm GB Intumescent 0.8x10 (single glass) or 0.8x20 (for insulated glass), optionally fitted in glass rebate



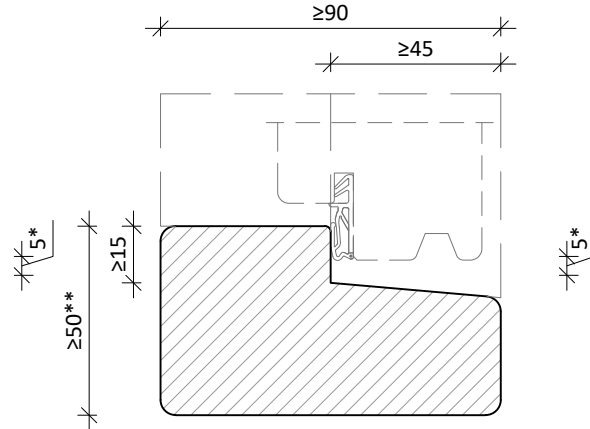
*: all edges chamfered ≤ 3 , Radius ≤ 5 , or square.
 **: block frame width max 300mm

Doorframe glazing	annex 3.2
DMT GmbH & Co. KG Plant for Product Safety Test Body for Fire Protection	report no. K-5052-DMT-DO

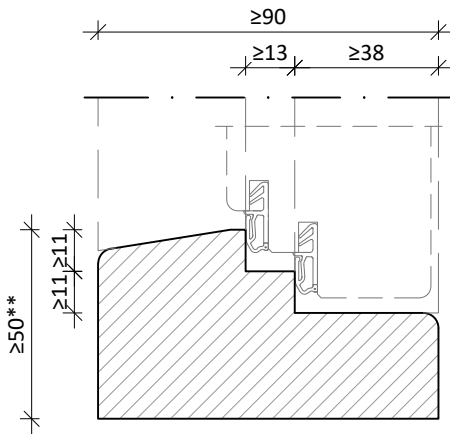
3.3 Doorframe thresholds



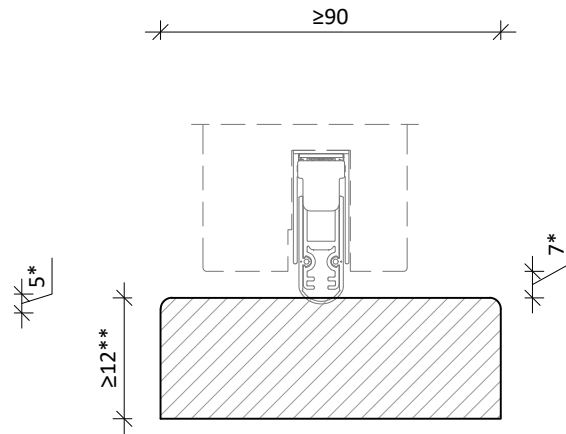
Solid material with 1 rebate with skirting blocks



Solid material with 1 rebate slanted, optionally with skirting blocks

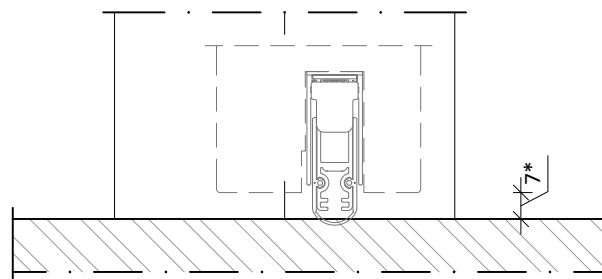


Solid material with double rebate, with skirting blocks



Solid material unrebated.

Fixation of threshold to frame, including skirting blocks if relevant, with PVC dowels and screw ca 8x120mm according manufacturers instruction

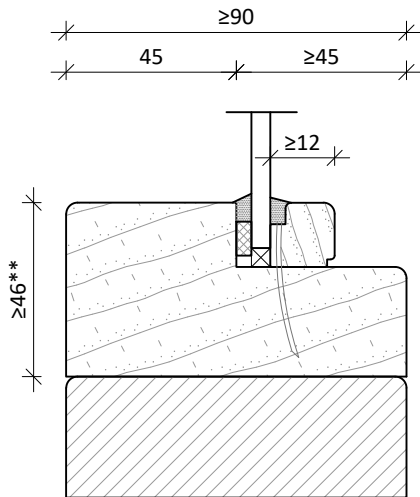


No threshold in door rebate. For S200, dropseal required. For Sa, no (drop)seal needed.

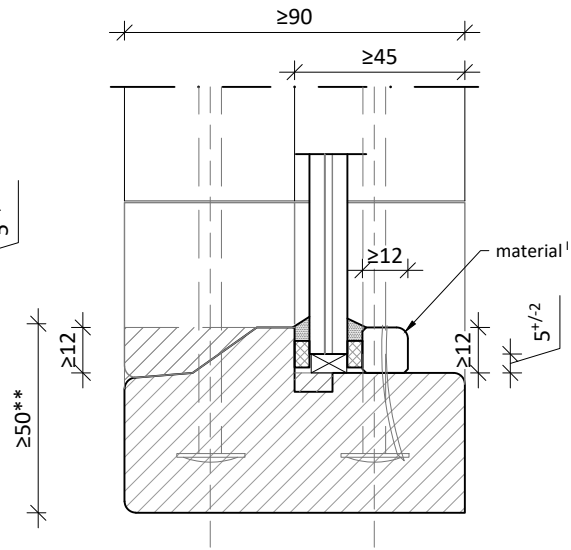


*: Gap size according Annex 1.4
 **: block frame width max 300mm

3.4 Sidescreen thresholds



Wood frame profile, optionally mounted on a threshold solid material (continuing from door opening)



Direct glazing on a threshold solid material (continuing from door opening) optionally with skirting blocks

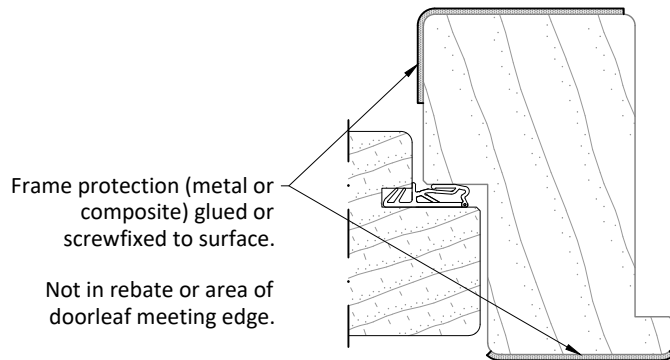
Glazing rules and materials see annex 3.2

** : block frame width max 300mm

Fixation of threshold to frame, including skirting blocks if relevant, with PVC dowels and screw ca 8x120mm or otherwise according manufacturers instruction

3.4 A: Frame protection

adding surface fixed frame protection possible



Materials:

1. Glazing sealant silicon based o.e.
2. Ceramic backing size $4^{+/-1} \times \geq 9\text{mm}$
3. Setting blocks Fitherm SB o.e.
4. Steel nail 1.2x30mm or screw $\varnothing 3.5 \times 40$ distance $50^{+/-10}\text{mm}$ from corner and $\leq 200\text{mm}$ apart.
5. Glass bead soft or hardwood $\geq 500\text{kg/m}^3$

Fitherm GB Intumescent 0.8x10 (single glass) or 0.8x20 (for insulated glass) optionally fitted in glass rebate.

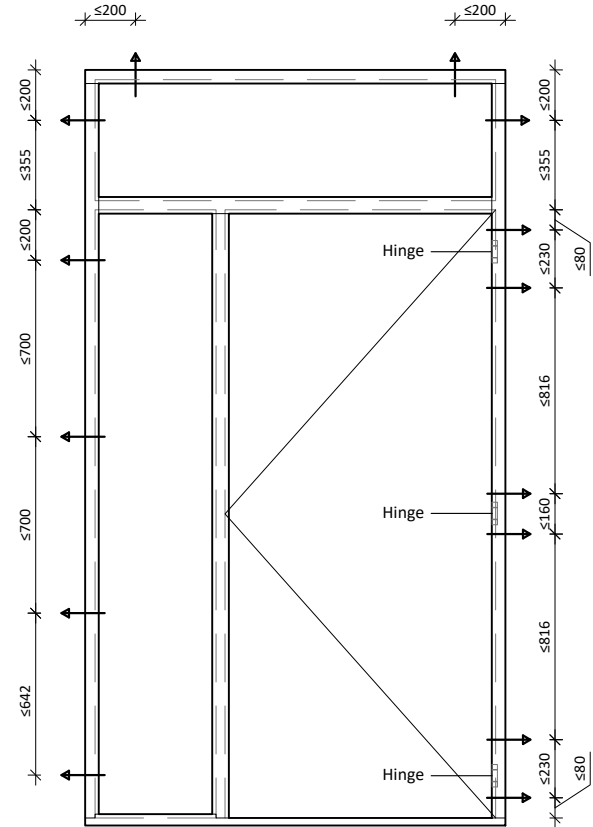
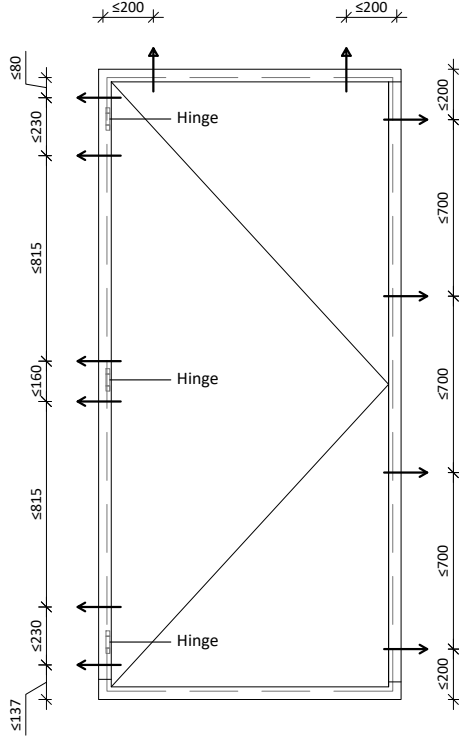


Sidescreen thresholds	annex 3.4
DMT GmbH & Co. KG Plant for Product Safety Test Body for Fire Protection	report no. K-5052-DMT-DO

4 Frame fixation to support construction

Fixation points of timber doorframes in support construction.
 Details of wall-to frame meeting edge and fixation see annex 4.1

Positioning in wall opening only



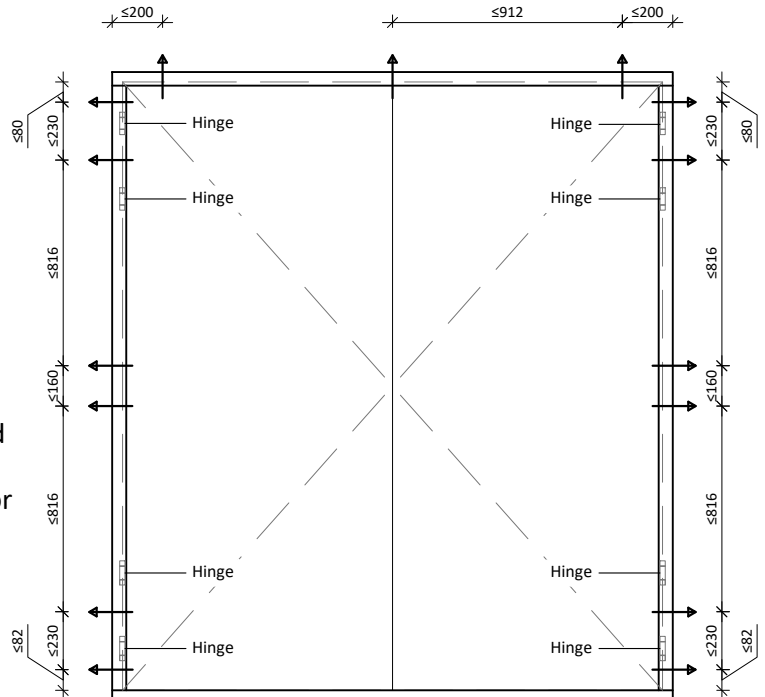
Support construction options:

Rigid $\geq 100\text{mm}$ density $\geq 550\text{kg/m}^3$

- Aerated concrete
- Concrete
- Masonry bricked wall
- limestone

Flexible partition $\geq 100\text{mm}$

- max 5m height
- To support door weight, prescription metal-stud wall:
 $\geq 2\text{mm}$ U-profile $\geq 40 \times \geq 50 \text{ mm}$ around doorframe, fixed to structural floor and ceiling construction.
 single or double $\geq 12.5 \text{ mm}$ gypsum board
- Or wooden-studs wall: $\geq 60 \times \geq 50 \text{ mm}$ around doorframe, fixed to structural floor and ceiling construction single or double $\geq 12.5 \text{ mm}$ gypsum board

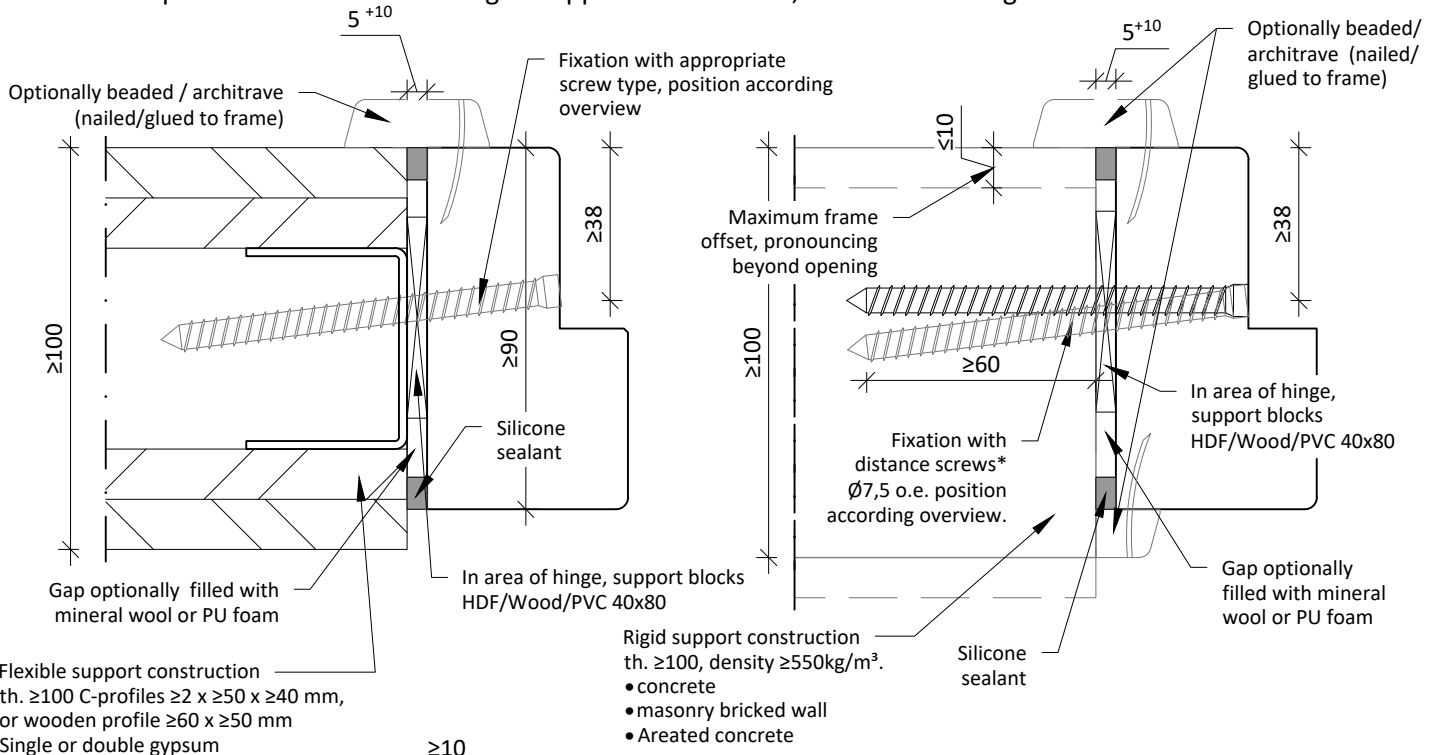


4.1 Meeting edge with and fixation to support construction



Fixation points of timber doorframes in support construction see Annex 4.0

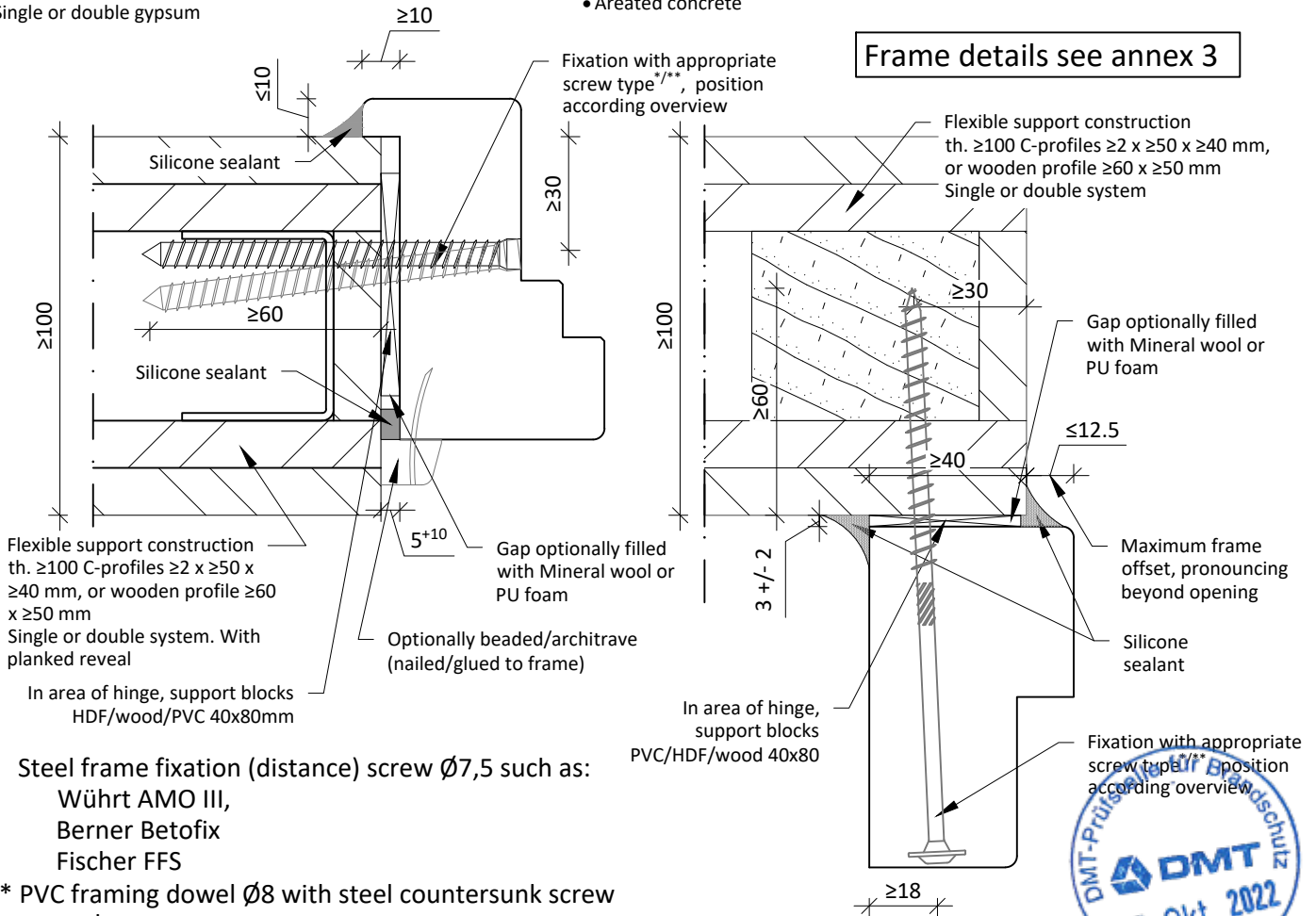
Examples of fixation and meeting to support construction, all are interchangeable



Flexible support construction
 th. ≥ 100 C-profiles $\geq 2 \times \geq 50 \times \geq 40$ mm,
 or wooden profile $\geq 60 \times \geq 50$ mm
 Single or double gypsum

Rigid support construction
 th. ≥ 100 , density $\geq 550 \text{ kg/m}^3$.

Frame details see annex 3



Flexible support construction
 th. ≥ 100 C-profiles $\geq 2 \times \geq 50 \times \geq 40$ mm, or wooden profile $\geq 60 \times \geq 50$ mm
 Single or double system. With planked reveal

In area of hinge, support blocks
 HDF/wood/PVC 40x80mm

* Steel frame fixation (distance) screw $\varnothing 7,5$ such as:
 Wührt AMO III,
 Berner Betofix
 Fischer FFS

** PVC framing dowel $\varnothing 8$ with steel countersunk screw
 such as:
 Fisher FXR
 Wührt W-UR
 Berner BXRfix

Other fixation to supporting construction possible if it is appropriate to the situation



Meeting edge frame to support constr.	annex 4.1
DMT GmbH & Co. KG Plant for Product Safety Test Body for Fire Protection	report no. K-5052-DMT-DO

Non-intumescent smoke, draught, acoustic seals

Nr.	Seal	Material	Height (mm)	Thickness (mm)	Gapsize (mm)	Position
5.01	SPV-12	TPE	11,5	9	6	Door- or frame rebate
5.02	SPV-15	TPE	14,5	9	6	Door- or frame rebate and meeting edge
5.03	SP-5739	TPE-2K	14,5	13	7	Door- or frame rebate
5.04	KD 1201	Silicone	12	10,5	6	Door- or frame rebate and meeting edge
5.05	KD 1501	Silicone	15	10,5	6	Door- or frame rebate and meeting edge
5.08	KD 1801	Silicone	18	10,5	6	Door- or frame rebate
5.10	KDA.01	Silicone	11	6	2	Meeting edge in astragal
5.11	K.003.3	TPE	7,5	10,5	-	Door rebate additional lateral to frame
5.12	Sash-barrier	HDPE	12/15	1	6	Meeting edge top and bottom corner of double door with integrated seal 5.01 -

Automatic drop seals

Nr	Seal	Material	Height	Thickness	Position
5.20	Ellen Matic Soundproof	Aluminium profile with silicone	30	15	At the bottom of the doorleaf in cutout
5.21	Ellen Matic Slimline	rubber and plastic composite parts	30	10	

Maximum gap under doorleaf for S200 with dropseal \leq 12mm



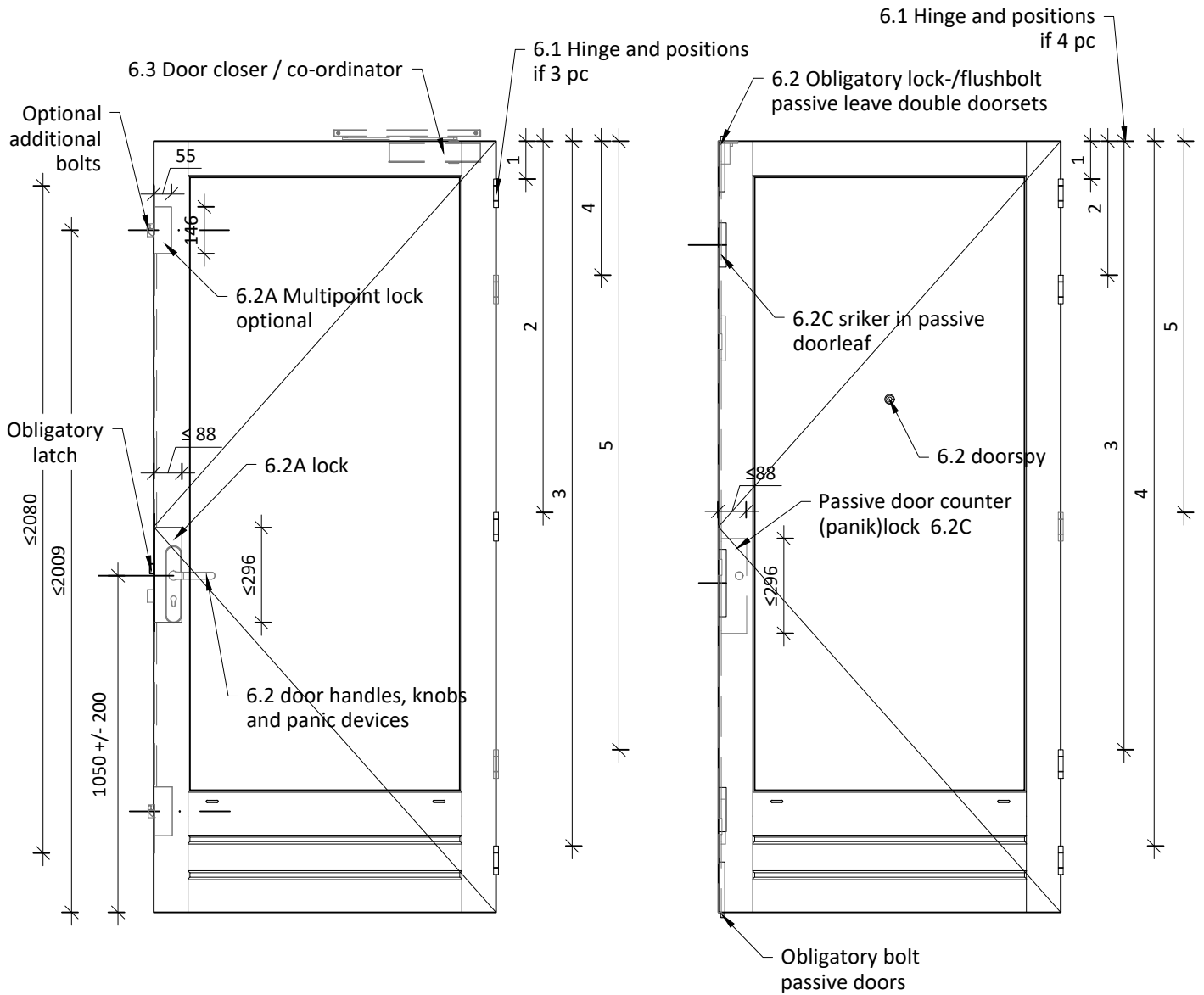
Seals

DMT GmbH & Co. KG
Plant for Product Safety
Test Body for Fire Protection

annex 5

report no.
K-5052-DMT-DO

6. Hardware positions and index

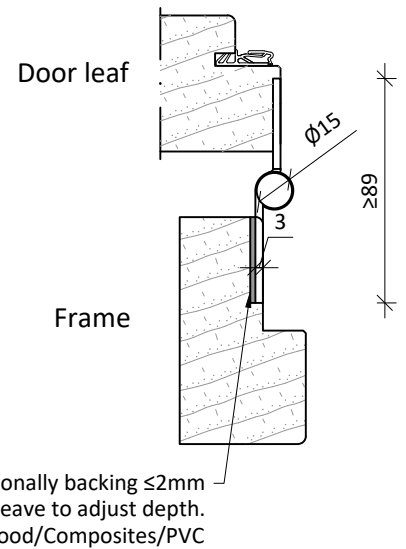
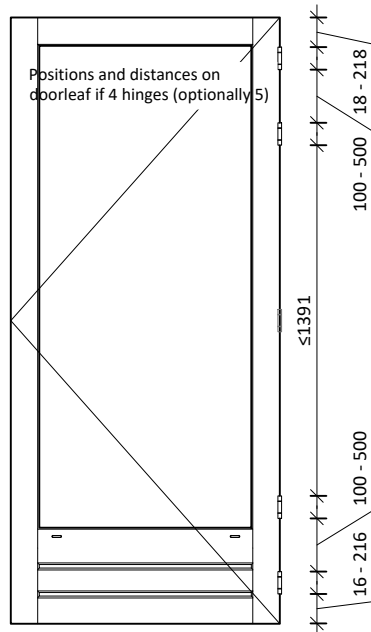
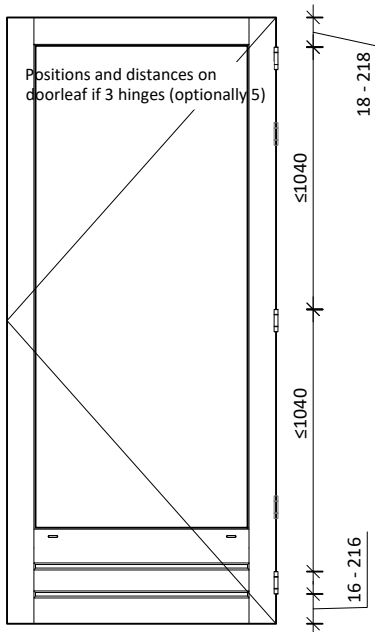
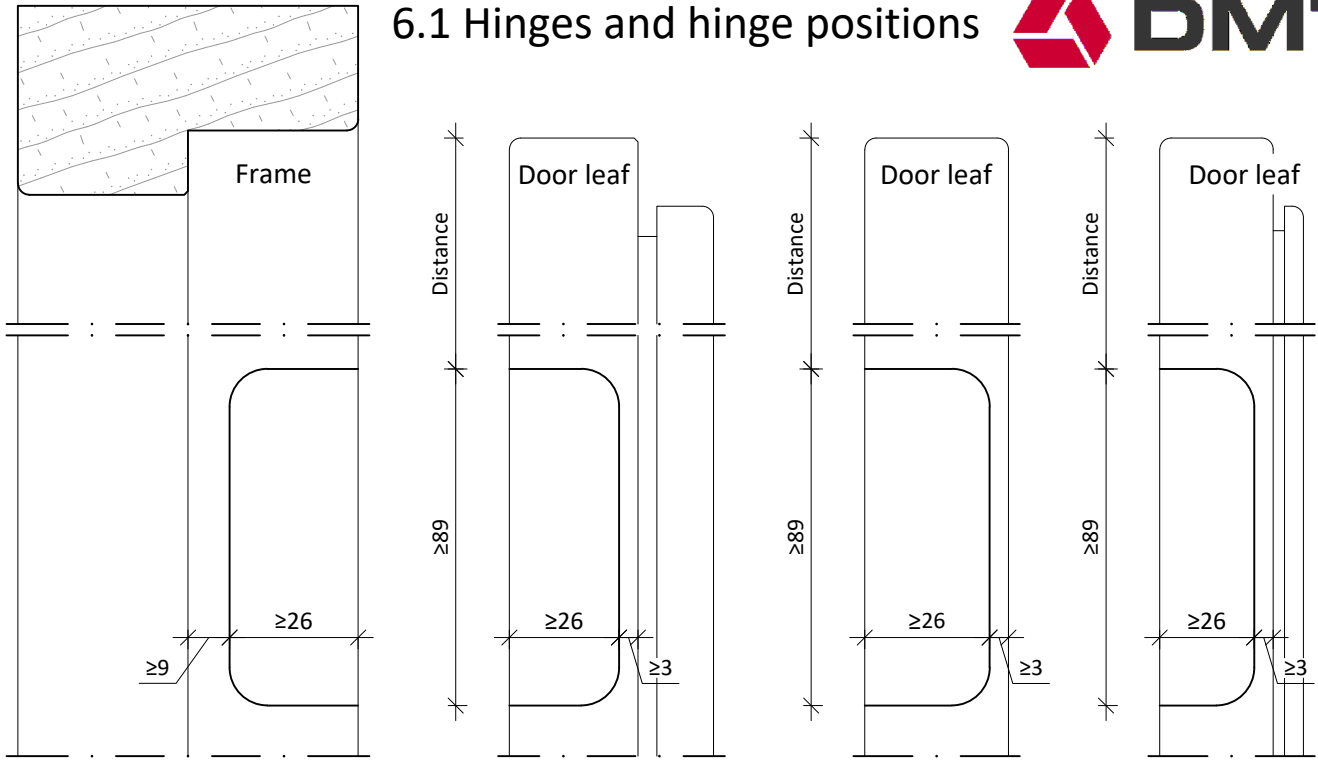


- 6.1 Hinges and position
- 6.2 A: Locks
B: Strikers
C: Passive doorlock systems
D: Furniture and handles
- 6.3 Door closers and co-ordinators



Hardware positions and index	annex 6.0
DMT GmbH & Co. KG Plant for Product Safety Test Body for Fire Protection	report no. K-5052-DMT-DO

6.1 Hinges and hinge positions



Product	Producer	Knot diameter	Height	Width	In-frame thickness	In-leaf thickness	Description	Fixation (screws)
S2 Ultimax	Themans BV	15	89	89	3	3	Galvanised butt hinge with integrated security and composite bushings	8x Ø4x35
S2 6504 HMR 089	Themans BV	15	89	89	3	3	Galvanised steel butt hinge with composite bushings	8x Ø4x35
Atlas Inside	Buva BV	15	89	89	3	3	Galvanised butt hinge with integrated security and composite bushings	8x Ø4x35

All steel-/stainless steel butt hinges according to EN1935 with test evidence in similar timber doorset construction, with equal or greater dimensions, can be used.



Hinges and hinge positions	annex 6.1
DMT GmbH & Co. KG Plant for Product Safety Test Body for Fire Protection	report no. K-5052-DMT-DO

6.2 Locks and furniture system index



A : Locks

	Product	Producer	type	cutout size main lock (w x d x h)	cutout size sidelock (w x d x h)	Forend size	Lever height	Top lockcase height in doorleaf
A.1	H542 Easy2Safe	Themans BV	MP-lock with 1 latch	85x18x269	55x15x146	3x20x1989	1050 (+/- 200)	2009
A.2	S2 PSU 943	Themans BV	Mortise latch lock	91x18x182	-	3x20x235	1050 (+/- 200)	-

- Other locks allowed if \leq cut out size, it has at least 1 metal latch ($\geq 500^{\circ}\text{C}$ melting point) .

B : Strikers to be fixed in frame

	Product	Producer	cutout size (wxdxh)	Type	Material	Max. height position in doorframe
B.1	S2 Flexikom hoofdkom	Themans BV	24 x 23 x 190	Box type main striker	Steel box, plastic	As main lock position
B.2	S2 Flexikom	Themans BV	24 x 21 x 130	Box type additional striker	Steel + plastic	2034

- Other strikers allowed if \leq cut out size and is out of (stainless) steel.

C : Passive doorleaf lock systems double doorsets

	Product	Producer	Leaf-cutout size (w x d x h)	Type	Material	Max. height position in doorframe
C.1	S2 V0207 CEU29-8	Themans BV	Forend: 29 x 8 Lever casing: 21 x 56 x 140	Forend passive doorlock with integrated strikers "Contra-espagnolet"	Steel	Full length of door

- Other passive doorleaf lock systems allowed if \leq cut out size and made out of (stainless) steel, with $\geq 500^{\circ}\text{C}$ melting point of bolts and strike plates .

D : Door furniture

	Product	Producer	Type	Material	Max. height position in doorframe
D.1	S2 402121	Themans BV	Security leverset SKG**	Aluminium	1050 +/-200
D.2	S2 CIL S6 45/30 S2 CIL S6 30/30	Themans BV	Euro profile cylinder SKG**	Brass	Dependent on leverset
D.3	DRS 2140B	Dulimex BV	Door viewer	brass case / plastic lens	-

- Other door furniture and cylinders possible if suitable for door thickness and furniture fully covers and seals the cutouts in the doorleaf.



Locks and furniture system index

annex 6.2

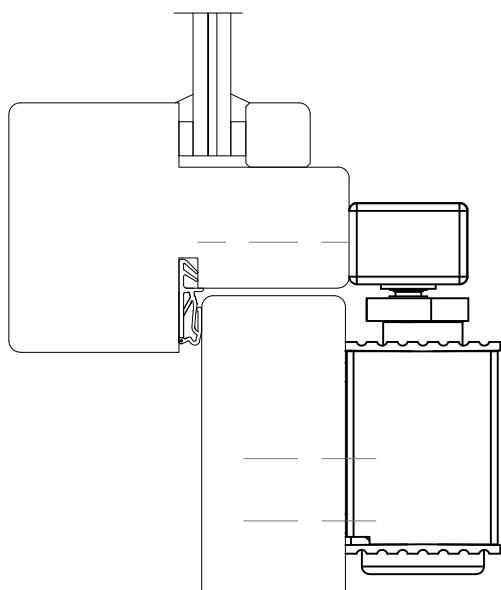
DMT GmbH & Co. KG
Plant for Product Safety
Test Body for Fire Protection

report no.
K-5052-DMT-DO

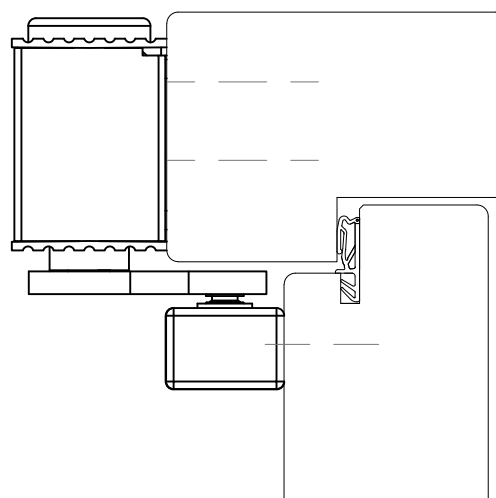
6.3 Door closers and coordinators

Type	Product	Producer	Rail or arm	EN 1154 size	Installation
Closer	ECO TS 41	ECO Schulte GmbH	Rail GS-B	EN 1-4	Door leaf or frame on hinge or hinge opposite face
Closer	ECO TS 62	ECO Schulte GmbH	Rail GS-B	EN 2-5	
Closer	TS3000	GEZE	Rail	EN 1-4	
Closer	TS5000 (EFS)	GEZE	Rail	EN 2-6	
Closing coordinator	ECO SR III / SR III BG	ECO Schulte GmbH	Rail GS integrated	-	Face fixed on frame
Closing coordinator	ISM / ISM-BG	GEZE	Rail GS integrated	-	

- All closers with EN 1154 and EN 1634-1 test evidence are allowed, considering size \leq above, equal position and fixation
- Face fixed on doorleaf or frame, on both opening and closing face possible



Normal installation closing face
(hinge side)



Installation opening face
(non-hinge side)

