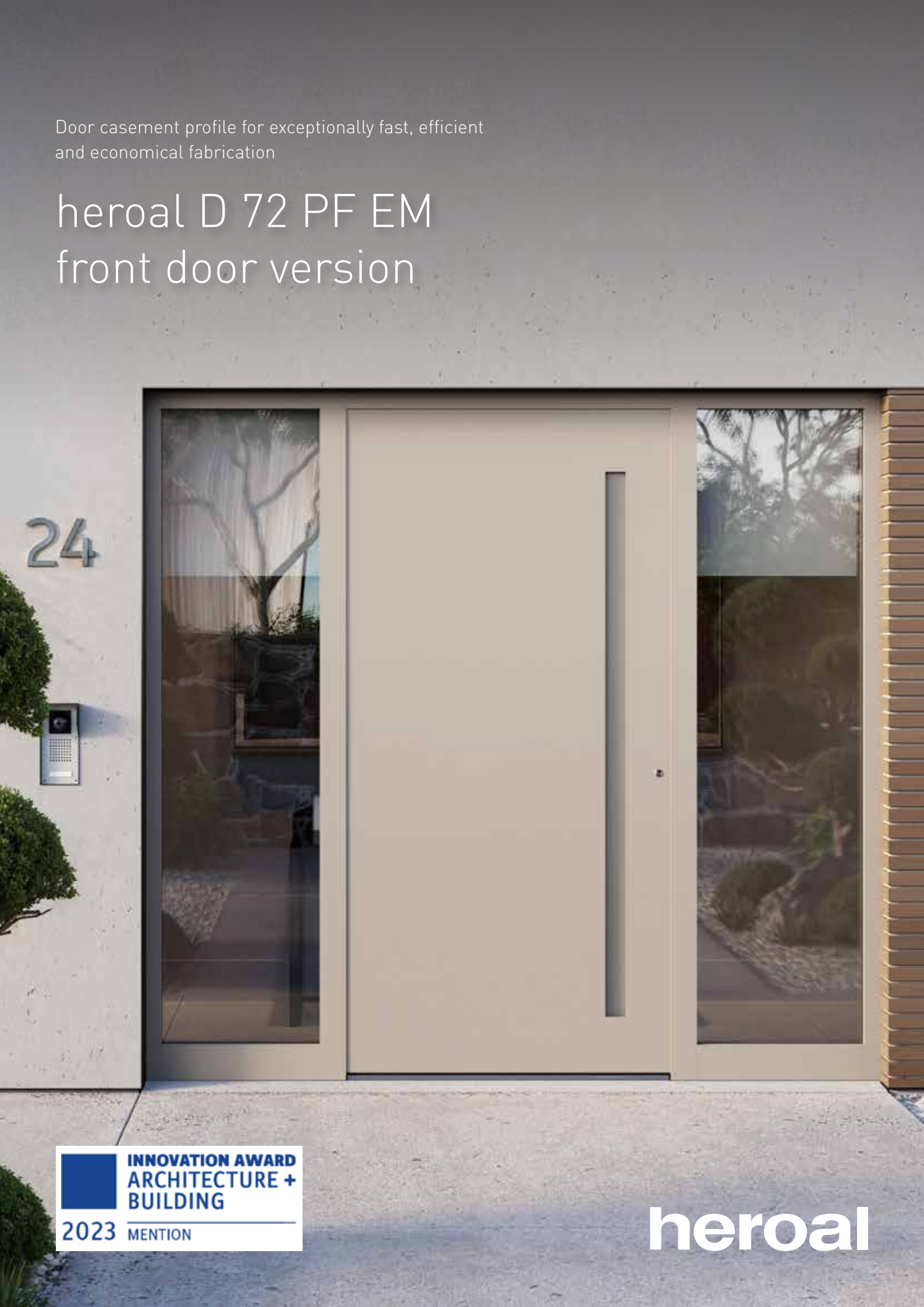
Door casement profile for exceptionally fast, efficient and economical fabrication

heroal D 72 PF EM front door version



INNOVATION AWARD
ARCHITECTURE + BUILDING
2023 MENTION

heroal

Front door system

First-class materials, technical perfection down to the last detail and a wide range of design options are what distinguish the efficient heroal systems technology. These are benefits that impress. For decades, heroal has been a reliable partner for architects, builders and fabricators with innovative aluminium and aluminium composite solutions for the building shell.

Planners appreciate the diversity of the design possibilities, builders can bring their specific requests to life with a reliable system and our partners benefit from the economical and efficient heroal system solutions.

The heroal D 72 PF EM door casement profiles are a highly efficient addition to the heroal D 72 front door system for easy fabrication. The new thermal break geometry, new reversible heroal infill panel attachment technique and revised accessories make the new sash profiles particularly easy, efficient and economical to fabricate.

Discover the possibilities of the heroal D 72 PF EM front door version.

Scan and
view product video.

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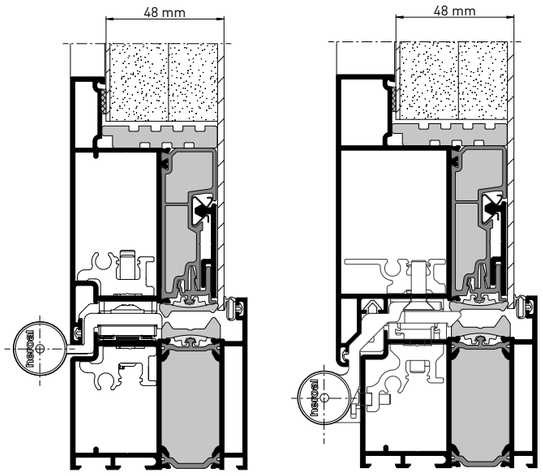
heroal D 72 PF EM es

Door casement profiles for one-sided sash-concealing panels

The heroal D 72 PF EM sash profiles are based on the heroal D 72 system logic and support exceptionally fast and efficient door fabrication using the same tools. The profile geometry, including the fixed internal backstop without glass strip (PF = "Panel Fixed") is designed for a standardised door panel thickness. This and other design solutions ensure extremely easy and efficient fabrication and installation (EM = "Easy Mount"). They enable up to 20 % faster fabrication and greater processing efficiency.



heroal D 72 PF EM es, section views

System dimensions and performance characteristics

» design depth: 72 mm
» minimum combined view width: 160 mm
» max. thickness of glass/infill panel: frame up to 54 mm, casement up to 68 mm (glass) and 48 mm (infill panel)
» heat insulation: U_f >1.7 W/m²K (satisfies all requirements of the GEG 2020)
» air permeability: class 4
» tightness against driving rain: class 9A
» wind load resistance: class 3
» differential climate behaviour as per EN 12219:1999-11: class 3 (d/e)
» operating forces as per EN 12217:2015-04: class 5
» burglary resistance: RC 2
» patented reversible infill panel attachment technology

Versions and design

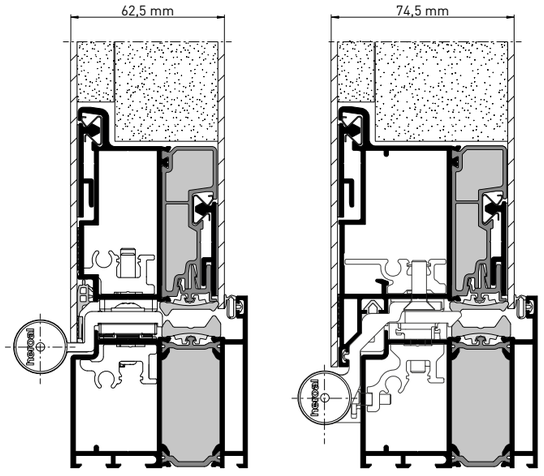
» opening types: single casement elements with side section and transom windows
» heroal D 72 PF "Panel Fixed" design option with fixed backstop, no glass strip required
» inwards overlapping or flush casement
» framed or one-sided casement frame FüF
» system-compatible window system: heroal W 72
» high-quality colour design with heroal hwr powder coating, heroal SD surface designs and Les Couleurs® Le Corbusier

es = one-sided sash-concealing panel

heroal D 72 PF EM bs

Door casement profiles for sash-concealing panels on both sides

The heroal D 72 PF EM product family is being expanded with the sash profiles for casement-enclosing door infill panel on both sides (bs). They are also based on the heroal D 72 door system logic, using the same tools. The heroal reversible infill panel attachment technology makes it possible to simply clip the infill panels from both sides. This enables efficient and easy installation of the infill panels (EM = Easy Mount) and door fabrication can continue immediately. Efficient and simple fabrication meets premium design.



heroal D 72 PF EM bs, section views

System dimensions and performance characteristics

» design depth: 72 mm
» minimum combined view width: 160 mm
» max. thickness of glass/infill panel: frame up to 54 mm, casement up to 68 mm (glass) and 62.5-74.5 mm (infill panel)
» heat insulation: U_f >1.7 W/m²K (satisfies all requirements of the GEG 2020)
» air permeability: class 4
» tightness against driving rain: class 9A
» wind load resistance: class 3
» differential climate behaviour as per EN 12219:1999-11: class 3 (d/e)
» operating forces as per EN 12217:2015-04: class 5
» shock resistance: class 4
» patented reversible infill panel attachment technology

Versions and design

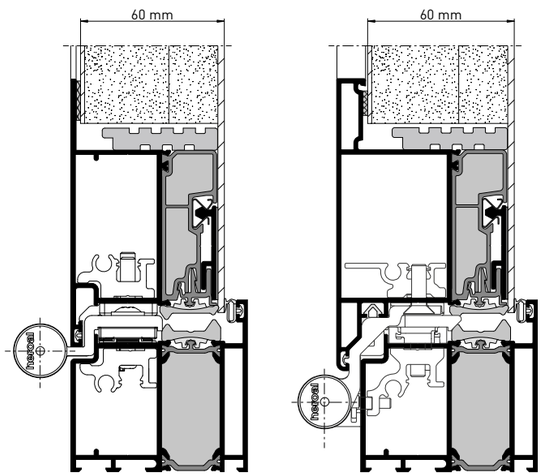
» opening types: single casement elements with side section and transom windows
» inwards overlapping or flush casement
» framed and casement frame on both sides FüF
» system-compatible window system: heroal W 72
» high-quality colour design with heroal hwr powder coating, heroal SD surface designs and Les Couleurs® Le Corbusier

bs = sash-concealing panel on both sides

heroal D 72 PF EM 60 mm

Door casement profiles for 60 mm infill panel thickness

The heroal D 72 PF EM 60 mm sash profiles expand the heroal D 72 PF EM product family and enable the use of 60 mm infill panel thicknesses. The significantly thicker infill panel by comparison highlights the quality of the door system. On the interior, a flush and recessed (overlapping casement) version is available, while the exterior impresses with its discreet flush look.



heroal D 72 PF EM es 60 mm, sectional views

System dimensions and performance characteristics

» design depth: 72 mm
» minimum combined view width: 160 mm
» max. thickness of glass/infill panel: frame up to 54 mm, casement up to 68 mm (glass) and 60 mm (infill panel)
» heat insulation: U_f >1.7 W/m²K (satisfies all requirements of the GEG 2020)
» air permeability: class 4
» tightness against driving rain: class 9A
» wind load resistance: class 3
» differential climate behaviour as per EN 12219:1999-11: class 3 (d/e)
» operating forces as per EN 12217:2015-04: class 5
» burglary resistance: RC 2
» patented reversible infill panel attachment technology

Versions and design

» opening types: single casement elements with side section and transom windows
» heroal D 72 PF "Panel Fixed" design option with fixed backstop, no glass strip required
» inwards overlapping or flush casement
» framed or one-sided casement frame FüF
» system-compatible window system: heroal W 72
» high-quality colour design with heroal hwr powder coating, heroal SD surface designs and Les Couleurs® Le Corbusier

heroal

Fabrication advantages

heroal D 72 PF EM es

+ faster processing time and easier installation thanks to removal of fabrication steps

+ new interior semi-facing with fixed backstop eliminates the need for the glass strip and the associated work steps

+ new fitting rebate insulation (TPE) provides for an ideal attachment of the motif board

+ designed for a door infill panel thickness of 48 mm and 60 mm with no additional processing of the door infill panel

+ more flexible tolerances in fabrication due to the removal of the outer shadow gap

+ new thermal break technology to prevent warping with no additional processing steps and the removal of the exterior semi-facing

+ optimised reversible infill panel attachment technique for even faster and easier installation of the infill panel

+ improved insulation and sealing options with new vulcanised moulded corners and fewer work steps

heroal

Fabrication advantages

heroal D 72 PF EM bs

+ faster processing time and easier installation thanks to removal of fabrication steps

+ internally flush and recessed (overlapping) versions

+ no additional profile fabrication to mechanically secure the infill panel necessary

+ identical accessories to the heroal D 72 PF EM es

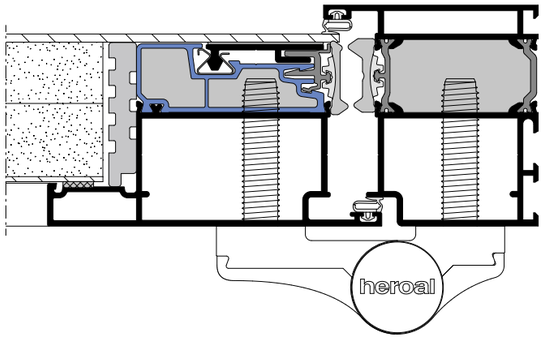
+ more flexible tolerances in fabrication due to the removal of the outer shadow gap

+ new thermal break technology to prevent warping with no additional processing steps and the removal of the exterior semi-facing

+ clip-on on both sides thanks to the optimised and efficient heroal infill panel attachment technology

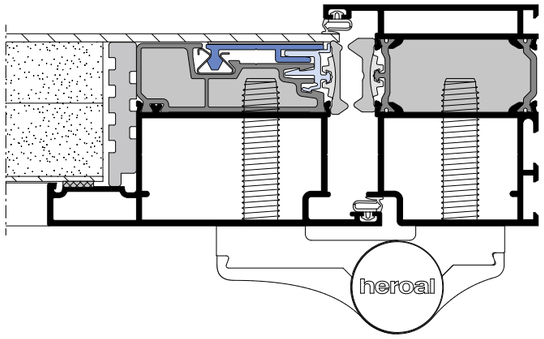
+ improved insulation and sealing options with new vulcanised moulded corners and fewer work steps

System principles



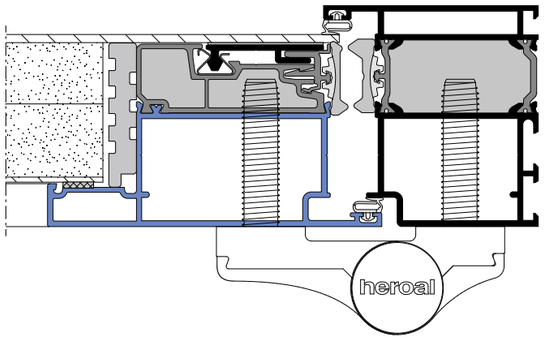
Thermal break technology

The thermal break technology prevents warping without any additional fabrication steps. This eliminates the usual work on the profile composite and thrust springs, which makes processing easier, faster and safer. The thermal break serves as exterior semi-facing, and as a support to mount the reversible retaining strip needed to attach the infill door panel.



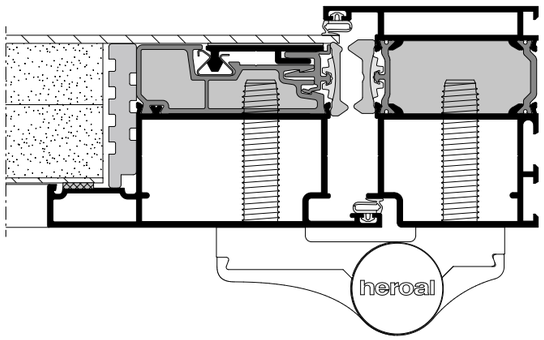
Reversible infill panel attachment

By comparison to the standard infill panel attachment using 2K adhesives on the entire surface, the reversible infill panel attachment is not only the most efficient and reliable method of infill panel installation, it is now even faster and easier: no prior processing of the profile is required for attachment. Instead of the familiar mechanical locking pins, a circumferential clip profile joins the door infill panel to the sash profile. There is also no longer any need to insert the sealing cord.



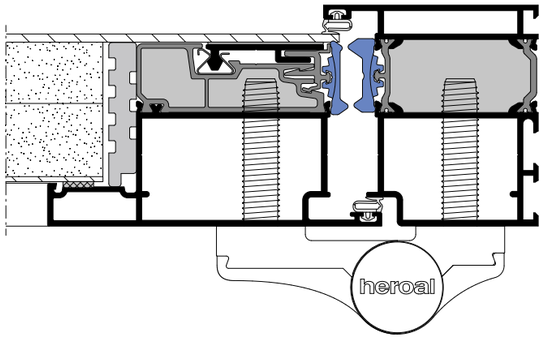
New PF "Panel Fixed" profile

As the door casement profile does not require a glass strip, fabrication is very easy and fast: the sash profile with fixed internal backstop (PF = "Panel Fixed") is designed for a standard door panel thickness of 48 mm. This eliminates the need for any additional processing of the door infill panel. Either a flush or overlapping casement can be used on the inside. When the overlapping sash profile is used, there is no shadow gap on the inside and outside.



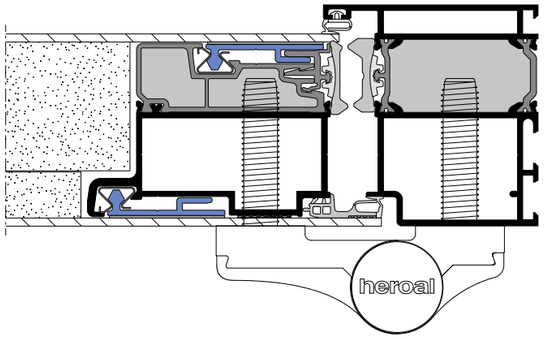
Sash profile behind the backstop

The removal of the outer shadow gap and the sash profile behind the backstop eliminates the need for fabrication tolerances. Optional, internally flush or recessed (opening casement) versions are available.



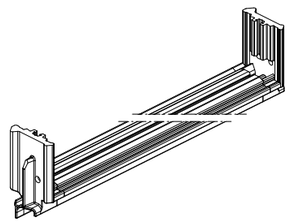
Sealant and insulation

The vulcanised moulded corners connect the door sealant with the fitting rebate insulation so that standard sealing wedges are no longer required. This eliminates the need for time-consuming work steps and reduces the amount of material used. The fitting rebate insulation made of thermoplastic elastomer (TPE) enables an optimal seal to the motif plate of the door infill panel.

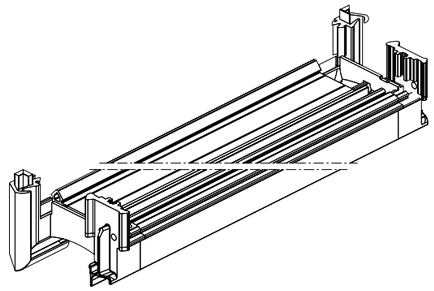


Reversible infill panel attachment on both sides

heroal D 72 PF EM bs enables the most efficient and easiest fabrication of a front door with sash-concealing panel on both sides. For the very first time, the optimised and efficient heroal infill panel attachment technology provides a clip-on infill panel on both sides. No preliminary fabrication of the profile is necessary for attachment. The use of the same tools and identical accessories save on storage costs. An internally flush or overlapping version is available. Efficient and simple fabrication meets premium design.



New door sealant with vulcanised moulded corner for flush casement



New door sealant with vulcanised moulded corner for overlapping casement

INNOVATION AWARD
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2023 MENTION

The heroal D 72 PF EM front door versions received the Innovation Award 2023 for the optimised production time as well as the fast and easy clip-on infill panel installation that does away with panel adhesive.

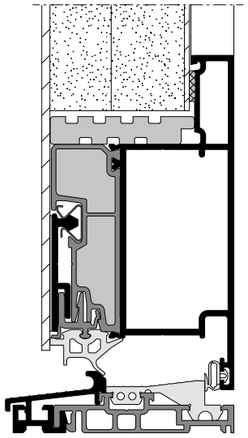
Scan and view installation video.

Threshold solutions

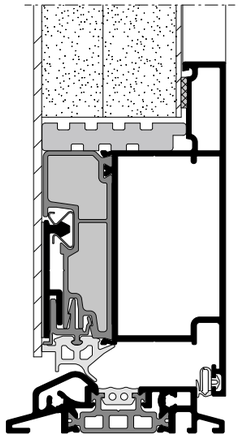
For all requirements and applications

Matching the simple and efficient production of the heroal D 72 PF EM sash profiles, the new 2-part continuous threshold solution can be used for the door seal in addition to the classic screw-in threshold solution. This combines the advantages of the continuous threshold construction running under the frame with the advantages of the surface-mounted door seal of the screw-in solution. In addition, the profiles are simply clipped into place. This further optimises processing times.

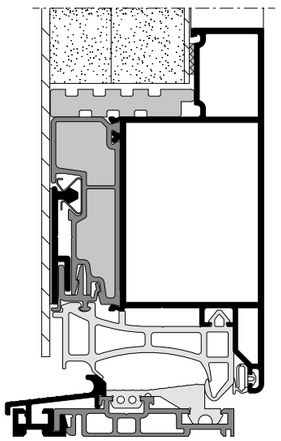
heroal D 72 PF EM es



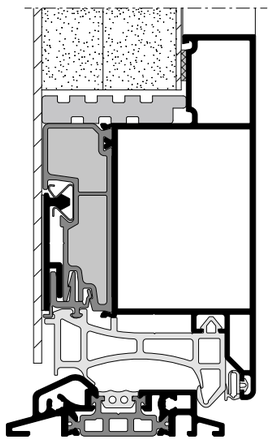
2-part continuous threshold with flush casement



Screw-in threshold with flush casement

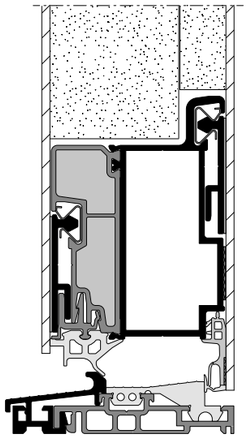


2-part continuous threshold with overlapping casement

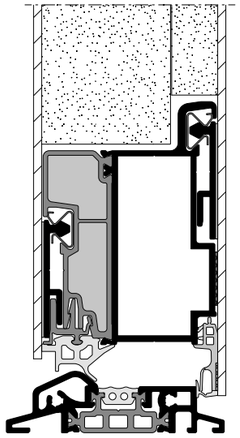


Screw-in threshold with overlapping casement

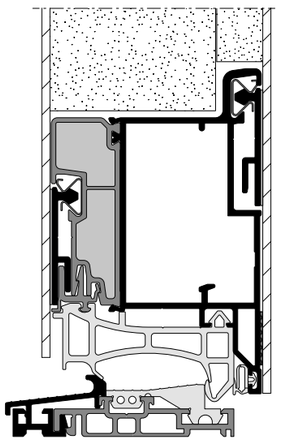
heroal D 72 PF EM bs



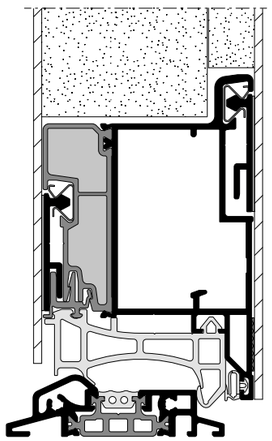
2-part continuous threshold with flush casement



Screw-in threshold with flush casement



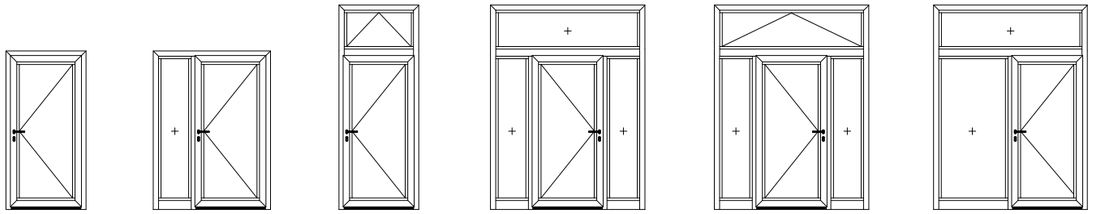
2-part continuous threshold with overlapping casement



Screw-in threshold with overlapping casement

Designs and opening types

Single casement elements with side section and transom window



heroal technologies

For optimised and time-saving fabrication

heroal corner angle technology

The innovative heroal sealant injection only uses a small amount of material to guarantee an optimal seal of the element mitre with complete sealant coating of the corner connector set on four sides for even greater system reliability. Economical and time-saving door fabrication is ensured by the heroal corner angle technology that optimises the fabrication processes during corner angle installation. Optimal and controlled sealant distribution and the innovative corner angle geometries save a considerable amount of material. The heroal expansion corner angles support the alignment to mitre-cut aluminium profiles so that door fabrication can continue immediately, without additional alignment.

heroal T-connector technology

The heroal T-connector technology enables optimised and time-saving door fabrication. The innovative heroal sealant injection has been developed to perfectly seal T-connections/joints. The use of closed-cell sponge for rebate sealing ensures excellent system reliability. The innovative heroal sealant injection guarantees the optimal sealing of T-connections/joints using just a small amount of material.

heroal fitting technology

The heroal DF fitting technology guarantees the highest level of flexibility and pursues the universal design approach, which can be individually tailored to the requirements of the user at any time and is additionally distinguished by intuitive handling and user-friendliness. The heroal door fittings are compatible with the latest technologies such as keyless entry and Bluetooth, which further increase ease of use. In the area of high-quality, optical hinge fitting technology, we offer a barrel and surface-mounted hinge option as well as a concealed solution.

Overview of the U_D values

heroal D 72 PF EM foamed profiles/ with insul. inserts Door 1 case. 1.23 x 2.18 m	Item number	W (mm)		Ug/Up value [W/m²k]							
				EnEV 2016/GEG 2020 > 19° UD ≤ 1.3 W/m²k							
				1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.4
Casement heroal D 72 PF EM es fb 48 mm	21662	160 121 o.i.	U_D =	1.4	1.3	1.2	1.2	1.1	1.0	0.97	0.91
Casement heroal D 72 PF EM es fv 48 mm	21642	160 131 o.i.	U_D =	1.4	1.3	1.2	1.2	1.1	1.0	0.97	0.90
Casement heroal 72 PF EM bs fb 62.5-74.5 mm	21664	149 110 o.i.	U_D =	1.4	1.3	1.2	1.2	1.1	1.0	0.96	0.90
Casement heroal D 72 PF EM bs fv 62.5-74.5 mm	21644	149 120 o.i.	U_D =	1.4	1.3	1.2	1.2	1.1	1.0	0.96	0.89
Casement heroal D 72 PF EM es fv 60 mm	21668	160 121 o.i.	U_D =	1.4	1.3	1.2	1.2	1.1	1.0	0.98	0.92
Casement heroal D 72 PF EM es fb 60 mm	21646	160 131 o.i.	U_D =	1.4	1.3	1.2	1.2	1.1	1.0	0.97	0.91

Requirements from 2023: GEG [German Building Energy Act] 2023 for residential buildings >19°:	U_D ≤ 1.3 W/m²K
Requirements from 2023: GEG [German Building Energy Act] 2023 for non-residential buildings >19°:	U_D ≤ 1.2 W/m²K
Requirements from 2025: KfW 40 + KfW 40 Plus:	U_D ≤ 1.0 W/m²K

Sustainability throughout the entire product lifecycle

» recyclable aluminium
» sustainable, reversible infill panel attachment: fast and easy replacement if needed, no damage to other door components
» fewer materials, scrap and emissions

The heroal all-round service

Support across the entire process chain

Comprehensive support. Comprehensive satisfaction.
Success is when every cog is perfectly in sync to ensure that everything runs smoothly. So we have designed our service offers to provide optimum support in every aspect of your work.

From marketing through to planning and production as well as application, our comprehensive service supports you along the entire process chain.

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heroal

simply better *spaces for life*

As a manufacturer of aluminium system solutions for roller shutters, sun protection, roller doors, windows, doors, sliding doors, curtain walls and patio roofs, heroal is an international market leader, supporting high-quality residential and commercial construction projects worldwide. heroal products are developed and manufactured in Germany and set themselves apart with their premium quality and exceptional performance features. As a result, the innovative system solutions contribute to greater sustainability, security, comfort and architectural freedom for both current and future building projects and impress with simple and efficient planning and fabrication by heroal specialist partners.

Roller shutters | Sun protection | Roller doors | Windows | Doors | Sliding doors | Curtain walls | Patio roofs

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