SUPPORT FOR DK-FIX

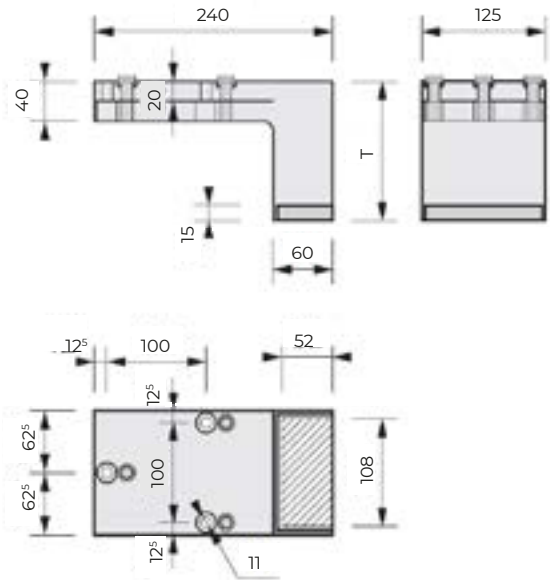
INDICE

1. CODE REGISTRY

Code	Description	Measure (mm)	Weight	Pkg. / Pallet
ZIN35-1798/8	Support for DK-FIX	80 x 125 x 240	0,672 kg/pc.	1 pc / - pcs
ZIN35-1798/10	Support for DK-FIX	100 x 125 x 240	0,724 kg/pc.	1 pc / - pcs
ZIN35-1798/12	Support for DK-FIX	120 x 125 x 240	0,776 kg/pc.	1 pc / - pcs
ZIN35-1798/14	Support for DK-FIX	140 x 125 x 240	0,829 kg/pc.	1 pc / - pcs
ZIN35-1798/16	Support for DK-FIX	160 x 125 x 240	0,881 kg/pc.	1 pc / - pcs
ZIN35-1798/18 *	Support for DK-FIX	180 x 125 x 240	0,934 kg/pc.	1 pc / - pcs
ZIN35-1798/20 *	Support for DK-FIX	200 x 125 x 240	0,986 kg/pc.	1 pc / - pcs

MATERIAL PU (polyurethane) support.

* to order



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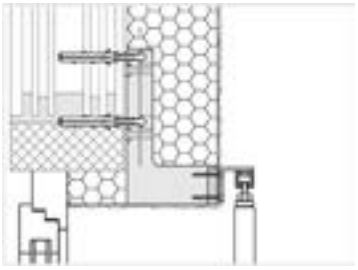
2. DESCRIPTION

Rigid support, rot-proof, CFC free, reinforced with two steel plates, injected with foam and phenolic reinforced resin, to ensure a screwing attachment to the base.
Three screwing anchors for assembling are included in the packaging.
Height sizes available 80, 100, 120, 140 and 160, width and length fixed 125 x 240 mm.

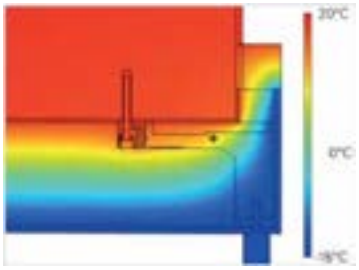
3. USE

Used for the application of heavy load elements in the ETICS system, such as windows and doors hinges, rain pipe brackets and other components.



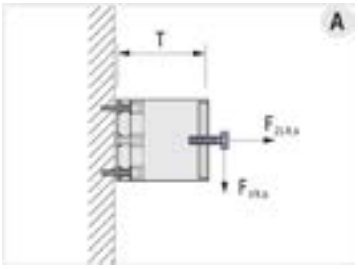
4. FEATURES

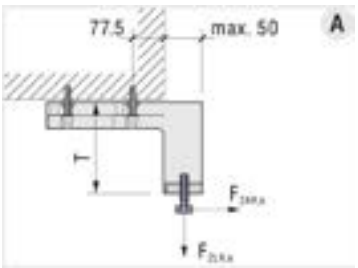
Thermal transmission



Point heat transfer coefficient χ [mW/K] in accordance with EOTA Technical Report TR 025

Breaking values





D mm		60	80	100	120	140	160	180	200	220	240	260	280	300
A	$F_{VR,k}$	3,25	2,95	2,65	2,35	2,10	1,90	1,70	1,50	-	-	-	-	-
	$F_{ZLR,k}$	2,20	2,30	2,40	2,50	2,55	2,60	2,65	2,70	-	-	-	-	-
	$F_{ZAR,k}$	2,95	2,55	2,25	1,90	1,65	1,40	1,20	1,00	-	-	-	-	-

$F_{VR,k}$	kN	Transverse force breaking load (characteristic strength)
$F_{ZLR,k}$	kN	Lateral tensile force breaking load (characteristic strength)
$F_{ZAR,k}$	kN	Breaking load of axial tensile force (characteristic strength)

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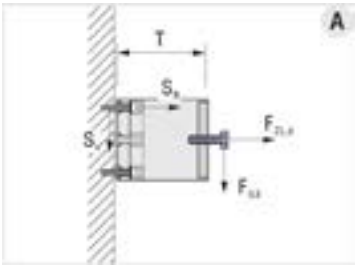
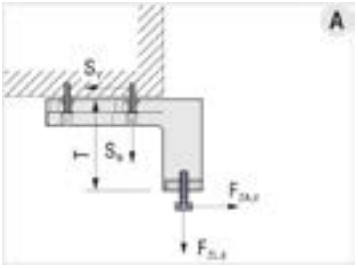
Strength calculation values

The safety coefficient of the material γ_M is included



D mm		60	80	100	120	140	160	180	200	220	240	260	280	300
A	$F_{VR,d}$	1,15	1,05	0,93	0,83	0,74	0,66	0,59	0,53	-	-	-	-	-
	$F_{ZL,k}$	0,77	0,81	0,84	0,87	0,90	0,92	0,94	0,95	-	-	-	-	-
	$F_{ZAR,k}$	1,05	0,90	0,78	0,67	0,58	0,49	0,41	0,35	-	-	-	-	-

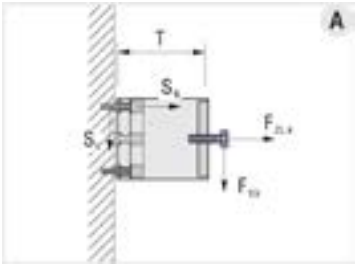
$$\beta = \frac{F_{V,d}}{F_{VR,d}} + \frac{F_{ZL,d}}{F_{ZLR,d}} + \frac{F_{ZA,d}}{F_{ZAR,d}} \leq 1{,}0$$



$F_{V,d}$	kN	Transverse force tension on mounting element (calculation values)
$F_{ZL,d}$	kN	Tension lateral tensile force on mounting element (calculation values)
$F_{ZA,d}$	kN	Tension axial force on mounting element (calculation values)
$F_{VR,d}$	kN	Computational strength of the transverse force of the mounting element
$F_{ZLR,k}$	kN	Computational strength of the lateral tensile force of the mounting element
$F_{ZAR,k}$	kN	Computational strength of the axial tensile force of the mounting element
S_N [1)]	kN	Tension force on fastener pin
S_V [1)]	kN	Transverse force tension on fastener pin

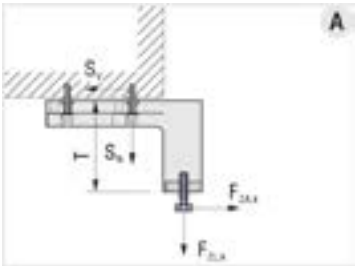
Recommended loads

The safety coefficient of the material γ_M a nd the margin of safety of the impact γ_F = 1,40 is included



D mm		60	80	100	120	140	160	180	200	220	240	260	280	300
A	$F_{V,empf}$	0,82	0,74	0,66	0,59	0,53	0,47	0,42	0,38	-	-	-	-	-
	$F_{ZL,empf}$	0,55	0,58	0,60	0,62	0,64	0,66	0,67	0,68	-	-	-	-	-
	$F_{ZA,empf}$	0,74	0,65	0,56	0,48	0,41	0,35	0,30	0,25	-	-	-	-	-

$$\beta = \frac{F_{V,k}}{F_{V,empf}} + \frac{F_{ZL,k}}{F_{ZL,empf}} + \frac{F_{ZA,k}}{F_{ZA,empf}} \leq 1{,}0$$



$F_{V,d}$	kN	Transverse force tension on mounting element (characteristic value)
$F_{ZL,d}$	kN	Lateral tensile force tension on mounting element (characteristic value)
$F_{ZA,d}$	kN	Axial tensile force tension on mounting element (characteristic value)
$F_{VR,d}$	kN	Calculating resistance of transverse force on mounting element
$F_{ZLR,k}$	kN	Computational strength of lateral tensile force of mounting element
$F_{ZAR,k}$	kN	Computational strength of axial tensile force of mounting element
S_N [2)]	kN	Tensile force tension on fastener pin (characteristic value)
S_V [2)]	kN	Transverse force tension on fastener pin (characteristic value)

[1) 2)] Calculation see page 4/6

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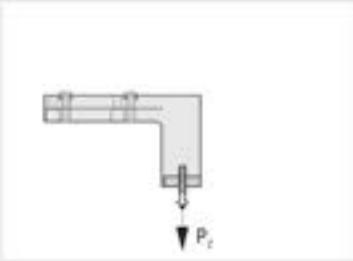
Recommended use load. Tensile force on screw connections in plastic plate.

Values shown refer to an unscrewing force of a single screw of the plastic plate



Tensile force	Mechanical Screw	Value (kN)
P_z	M6	0,51
P_z	M8	1,0
P_z	M10	1,1
P_z	M12	1,4

Tensile force	Screw for Wood - diameter (mm)	Value (kN)
P_z	5	0,8
P_z	6	0,9
P_z	8	1,0
P_z	10	1,6

Stress of the fastener on the support (characteristic values per screw)

Values shown refer to an unscrewing force of a single screw of the plastic plate

$$S_N = 0{,}01 \cdot T \cdot F_{V,k} + 0{,}988 \cdot F_{ZL,k} + 0{,}00645 \cdot F_{ZA,k}$$

$$S_V = \sqrt{0{,}815 \cdot F^2_{V,k} + 0{,}111 \cdot F^2_{ZA,k} + 0{,}374 \cdot F_{V,k} \cdot F_{ZA,k}}$$

$$S = \sqrt{S^2_N + S^2_V}$$

S_n	kN	Transverse force tension on fastener pin (characteristic value)
S_v	kN	Transverse force tension on fastener pin (characteristic value)
S	kN	Oblique tensile force tension on fastener pin (characteristic value)
$F_{V,k}$ [3)]	kN	Transverse force tension on mounting element (characteristic value)
$F_{ZL,k}$ [3)]	kN	Lateral tensile force voltage on mounting element (characteristic value)
$F_{ZA,k}$ [3)]	kN	Axial tensile force voltage on mounting element (characteristic value)
T	mm	Mounting element type

Allowable loads for a fastener pin SXRL 10 (concrete)

Ground anchorage		
Concrete	$S_{NR,zul}$ kN	$S_{VR,zul}$ kN
≥ C20/25	1,79	3,95

Recommended loads for a fastener pin SXRL 10 (masonry)

Ground anchorage		f_b N/mm²	$S_{R,empf}$ kN
Solid brick	Mz	12	1,14
Solid limestone sandstone brick	KS	20	1,00
Vertical perforated brick	HLz	20	0,34
Vertical perforated brick	HLz, Form B	20	0,57
Perforated limestone sandstone brick	KSL	12	0,71
Perforated block in lightened concrete	Hbl	2	0,43
Solid brick in lightweight concrete	V	6	1,29
Porous concrete		6	0,71

[3)] Calculation see page 3/6

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5. LAYING INSTRUCTIONS

Mechanical fastening requirements

It is necessary to check the suitability of the supplied fasteners for the present subgrade as well as the scope of application. In case of unknown subgrade, it is necessary to make attempts to extract the fasteners before the beginning of the assembly in question.

In case of load-bearing elements, it is not recommended to insert fastening pins before the beginning of mounting on the object

In case of load-bearing elements, insertion of fastening pins into the masonry is not recommended. The elements should be fixed with threaded rods for injection screws A M8.

Mounting

Before installation, ensure that the hinge support elements have no visible damage and have not been exposed to the weather for a long time. Any modification of the hinge support elements. will vary according to the required distance between the edge and the fixing pin.

Hinge support elements can be coated with commercially available existing materials for thermal insulation coating systems, without basic vermicification.

The components can be set on plaster cladding. In this case, the coating must support the compressive forces to which the screwing of the component is subject.

For screw connections in hinge support elements, wood or self-tapping screws are suitable, as are those with cylindrical and coarse pitch threads (set screws) or screws with metric threads (M-screws).

Screw fastenings should be made only on the intended useful surfaces.

6. TECHNICAL SPECIFICATION

Item	Description	Unit	Price
Dak.B.ZIN35.1798/x	Supply and installation of rigid, rot-proof, CFC-free Support, reinforced with two steel plates, injected with foam to ensure tight screwing to the base and resin. Element supplied with 3 screw anchors for mounting. Sizes available from 80, 100, 120, 140, 160, 180 and 200 always for 125 x 240 mm. PU (polyurethane) backing. Used for insertion of heavy load elements, such as shutter rebate.		
Dak.B.ZIN35.1798/8	80 x 125 x 240 mm	pc	-
Dak.B.ZIN35.1798/10	100 x 125 x 240 mm	pc	-
Dak.B.ZIN35.1798/12	120 x 125 x 240 mm	pc	-
Dak.B.ZIN35.1798/14	140 x 125 x 240 mm	pc	-
Dak.B.ZIN35.1798/16	160 x 125 x 240 mm	pc	-
Dak.B.ZIN35.1798/18	180 x 125 x 240 mm	pc	-
Dak.B.ZIN35.1798/20	200 x 125 x 240 mm	pc	-