



## EKSPLUATĀCIJAS ĪPAŠĪBU DEKLARĀCIJA

DoP Nr. KEW - 1109-CPR-2004 - Iv

1. Produkta tipa unikālais identifikācijas kods: Ar āmuru iedzenams stiprinājums TSDL-V / TSD-V WS
2. Tipa, partijas vai sērijas numurs vai jebkurš cits elements, kas ļauj identificēt būvizstrādājumu, kā to pieprasa 11(4) pants:

ETA-12/0148 pielikums A2/A3  
Partijas numurs: skatīt uz iepakojuma

3. Būvizstrādājuma paredzētais pielietojums saskaņā ar piemērojamo harmonizēto tehnisko specifikāciju, kā to paredzējis ražotājs:

vispārējs tips	ledzenams plastmasas enkurs ārējās siltumizolācijas kompozīta sistēmu ar apmetumu stiprināšanai
paredzēts lietošanai	ETA-12/0148 pielikums B1
iespēja / kategorija	ETA-12/0148 pielikums B1
ielādēšana	ETA-12/0148 pielikums B1
materiāls	ETA-12/0148 pielikums A4
temperatūras diapazons	ETA-12/0148 pielikums B1

4. Nosaukums, reģistrētais nosaukums vai reģistrētas tirdzniecības zīmes nosaukums un ražotāja kontaktadrese, kā to pieprasa 11(5). pants.

KEW Kunststoffzeugnisse GmbH Wilthen  
Dresdener Straße 19  
02681 Wilthen  
Vācija

5. Ja piemēro, autorizētā pārstāvja, kas ir pilnvarots veikt 12(2) pantā norādītos uzdevumus, nosaukums un kontaktadrese:

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6. Būvizstrādājuma īpašību nemainīguma novērtēšanas un verifikācijas sistēma vai sistēmas, kā norādīts V pielikumā:

Sistēma 2+

7. Eksploatācijas īpašību deklarācijas attiecībā uz būvizstrādājumu, uz ko attiecas harmonizētais standarts, gadījumā:

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8. Eksploatācijas īpašību deklarācijas, kas attiecas uz būvizrādājumu, kam izsniegts Eiropas tehniskais novērtējums, gadījumā:

yra išduota: **DIBt Deutsches Institut für Bautechnik**

koku pagrindu: **ETA-12/0148** uz **22.03.2017**

pamatojoties uz: **EAD 330335-00-0604**

**1109-CPR** izpildīja **Sistēma 2+**

- i) sākotnējā ražotnes apskate un ražošanas procesa kontrole  
 ii) nepārtraukta ražošanas procesa kontroles uzraudzība, novērtēšana un apstiprināšana

Paziņotā iestāde **1109-CPR-2004**

9. Deklarētās īpašības:

Būtiskie raksturlielumi	Projektēšanas metode	Eksploatācijas īpašības		Harmonizētā tehniskā specifikācija
		Elektrolītiski cinkots tērauds	nerūsējošais tērauds	
Raksturīgā noturība	EAD 330335-00-0604	ETA-12/014 pielikums C1	ETA-12/014 pielikums C1	EAD 330335-00-0604
Minimālais šķautnes attālums un enkuru savstarpējais attālums	EAD 330335-00-0604	ETA-12/014 pielikums B2	ETA-12/014 pielikums B2	
Nobīdes īpašības	EAD 330335-00-0604	ETA-12/014 pielikums C2	ETA-12/014 pielikums C2	
Spot siltuma caurlaidība ar	EAD 330335-00-0604	ETA-12/014 pielikums C2	ETA-12/014 pielikums C2	
Plātnes stingrība saskaņā ar	EAD 330335-00-0604	ETA-12/014 pielikums C2	ETA-12/014 pielikums C2	

Ja izmanto 37. vai 38. pantā norādīto speciālo tehnisko dokumentāciju – prasības, kurām atbilst produkts:

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- 10.

Produkta, kas identificēts 1. un 2. punktā, īpašības atbilst 9. punktā deklarētajām īpašībām.

Šī eksploatācijas īpašības deklarācija ir izdota ar pilnu ražotāja, kas identificēts 4. punktā, atbildību.

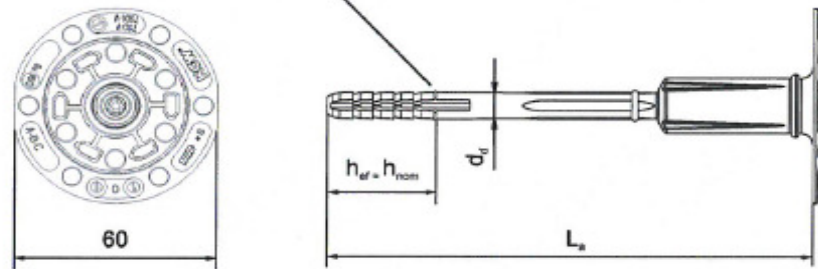
Ražotāja vārda parakstīja:

**André Gedan**  
 (generalinīs pavadimū ir rinkodaros direktorius)  
 Wülthen, 20.04.2018



**TSDL-V**

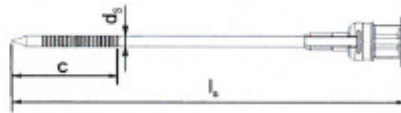
marking of effective anchorage depth (A-B-C)



**Marking**

Company logo – (KEW®)  
 Anchor type – (TSDL-V)  
 Diameter of drill hole – (ø8)  
 Length of anchor – (e.g. 160)

**Special nail with special head**



**Table A1: Dimensions TSDL-V**

Anchor type	Anchor sleeve				Special nail		
	L <sub>a</sub> min [mm]	L <sub>a</sub> max [mm]	d <sub>d</sub> [mm]	h <sub>ef</sub> [mm]	d <sub>s</sub> [mm]	c [mm]	l <sub>s</sub> [mm]
<b>KEW - TSDL-V</b>	<b>120</b>	<b>300</b>	<b>8</b>	<b>30</b>	<b>4,0</b>	<b>35</b>	<b>L<sub>a</sub> + 4mm</b>
Determination of max. Thickness of insulation [mm]: $h_{Dmax} = L_a - h_{ef} - t_{tol}$							
e.g.:	<b>L<sub>a</sub> = 160</b>		<b>h<sub>ef</sub> = 30</b>		<b>t<sub>tol</sub> = 10</b>		
TSDL-V 8x160	thickness of insulation material				<b>h<sub>Dmax</sub> = 120</b>		

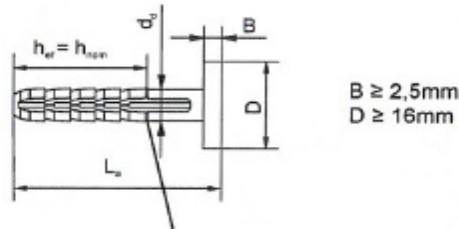
**Insulation support – metal nail KEW TSDL-V and KEW TSD-V WS**

**Product description**

Marking and dimensions of the anchor sleeve TSDL-V spreading element / special nail

**Annex A 2**

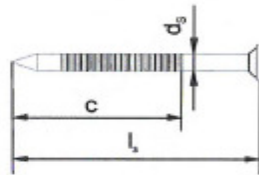
**TSD-V WS**



$B \geq 2,5\text{mm}$   
 $D \geq 16\text{mm}$

marking of effective anchorage depth

**Special nail**



**Table A2: Dimensions TSD-V WS**

Anchor type	Anchor sleeve				Special nail		
	$L_a$ min [mm]	$L_a$ max [mm]	$d_d$ [mm]	$h_{er}$ [mm]	$d_s$ [mm]	$c$ [mm]	$l_s$ [mm]
KEW - TSD-V WS	50	250	8	30	4,0	35	$L_a + 4\text{mm}$

**Insulation support – metal nail KEW TSDL-V and KEW TSD-V WS**

**Produktbeschreibung**  
 Marking and dimensions of the anchor sleeve TSD-V WS  
 spreading element / special nail

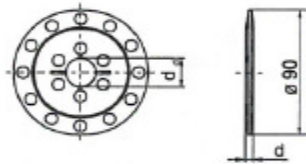
**Annex A 3**

**Table A3: Materials**

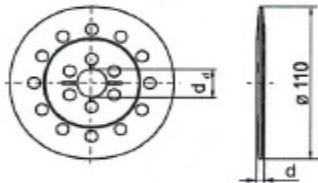
Member	Material
Anchor sleeve	Polypropylen, colour: papyrus white
Special nail	Steel, galvanized A2L or A2K according to EN ISO 4042:2001
	Stainless steel; mat.No. 1.4401, 1.4571 according to EN ISO 3506:2010

**Table A4: Insulation discs, diameters and material**

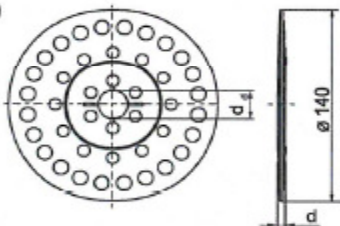
DSB 90



DSB 110



DSB 140



Insulation discs	Ø D [mm]	Ø d <sub>d</sub> [mm]	d [mm]	Material
<b>DSB 90</b>	90	20	5	PA 6, PP
<b>DSB 110</b>	110	20	5	PA 6, PP
<b>DSB 140</b>	140	20	5	PA 6, PP

**Insulation support – metal nail KEW TSDL-V and KEW TSD-V WS**

**Product description**  
Materials  
Additional plates in combination with KEW TSDL-V

**Annex A 4**

## Specifications of intended use

### Anchorage subject to:

- The anchor may only be used for transmission of wind suction loads and shall not be used for the transmission of dead loads of the thermal insulation composite system.

### Base materials:

- Normal weight concrete (use category A) according to Annex C1.
- Solid masonry (use category B), according to Annex C1.
- Hollow or perforated masonry (use category C), according to Annex C1.
- For other base materials of the use categories A, B or C the characteristic resistance of the anchor may be determined by job site tests according to EOTA Technical Report TR 051 edition December 2016.

### Temperature Range:

- 0°C to +40°C (max. short term temperature +40°C and max. long term temperature +24°C)

### Design:

- The anchorages are designed in accordance with the EAD 330335-00-0604 under the responsibility of an engineer experienced in anchorages and masonry work.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored. The position of the anchor is indicated on the design drawings.
- Fasteners are only to be used for multiple fixings of thermal insulation composite systems.

### Installation:

- Hole drilling by the drill modes according to Annex C1.
- Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.
- Installation temperature from 0°C to +40°C
- Exposure to UV due to solar radiation of the anchor not protected by rendering  $\leq 6$  weeks

Insulation support – metal nail KEW TSDL-V and KEW TSD-V WS

Intended use  
Specifications

Annex B 1

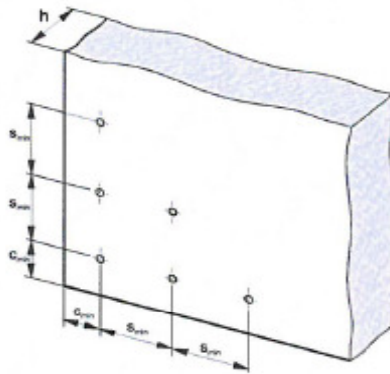


**Table B1: Installation parameters**

Anchor type		KEW- TSDL-V
Drill hole diameter	$d_0 =$ [mm]	<b>8</b>
Cutting diameter of drill bit	$d_{cut} \leq$ [mm]	<b>8,45</b>
Depth of drilled hole to deepest point	$h_1 \geq$ [mm]	<b>40</b>
Effective anchorage depth	$h_{ef} =$ [mm]	<b>30</b>

**Table B2: Anchor distances and dimensions of members**

		KEW- TSDL-V
Thickness of member	$h \geq$ [mm]	<b>100</b>
Minimum allowable spacing	$s_{min} =$ [mm]	<b>100</b>
Minimum allowable edge distance	$c_{min} =$ [mm]	<b>100</b>

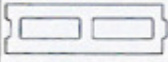




**Insulation support – metal nail KEW TSDL-V and KEW TSD-V WS**

**Intended use**  
Installation parameters,  
Anchor distances and dimensions of members

**Annex B 2**

**Table C1: Characteristic resistance  $N_{Rk}$  in concrete and masonry for a single anchor in kN**

Base material	Bulk density $\rho$ [kg/dm <sup>3</sup> ]	Minimum Compressive strength $f_b$ [N/mm <sup>2</sup> ]	Remarks	Drill method	$N_{Rk}$ [kN]
Concrete C12/15			EN 206-1:2000	Hammer drilling	1,2
Concrete C16/20 – C50/60			EN 206-1:2000	Hammer drilling	1,5
Sand-lime solid bricks, KS e.g. acc. to EN 771-2:2011	$\geq 1.8$	12	Vertically perforation up to 15%	Hammer drilling	1,5
Clay bricks, Mz e.g. acc. to EN 771-1:2011	$\geq 1.7$	20	Vertically perforation up to 15%	Hammer drilling	1,5
Vertically perforated clay bricks, HLz e.g. acc. to EN 771-1:2011	$\geq 1.0$	12	Vertically perforation more than 15% and less than 50% outer web thickness $\geq 12\text{mm}$	Rotary drilling	0,9
Vertically perforated sand-lime bricks KS L, e.g. acc. to EN 771-2:2011	$\geq 1.4$	12	Vertically perforation more than 15% outer web thickness $\geq 22\text{mm}$	Rotary drilling	1,2
Lightweight concrete hollow blocks, Hbl e.g. acc. to EN 771-3:2011	$\geq 0.8$	2	 outer web thickness $\geq 50\text{mm}$	Rotary drilling	0,6
Vertically perforated clay bricks, HLz e.g. acc. to EN 771-1:2011	$\geq 0.9$	12	 outer web thickness $\geq 10\text{mm}$	Rotary drilling	0,75
Lightweight concrete solid blocks, Vbl e.g. acc. to EN 771-3:2011	$\geq 0.8$	2	 outer web thickness $\geq 43\text{mm}$	Hammer drilling	0,6

**Insulation support – metal nail KEW TSDL-V and KEW TSD-V WS**

**Performances**

Characteristic resistance of the anchor in concrete and masonry

**Annex C 1**



**Table C2: Displacements**

Base material	Bulk-density-class $\rho$ [kg/dm <sup>3</sup> ]	Minimum compressive strength $f_b$ [N/mm <sup>2</sup> ]	Tension load $N$ [kN]	Displacements $\delta_m(N)$ [mm]
Concrete C12/15 EN 206-1:2000			0,4	0,2
Concrete C16/20 – C50/60 EN 206-1:2000			0,5	0,2
Sand-lime solid bricks, KS e.g. acc. to EN 771-2:2011	≥1.8	12	0,5	0,3
Clay bricks, Mz e.g. acc. to EN 771-1:2011	≥1.7	12	0,5	0,3
Vertically perforated clay bricks, HLz e.g. acc. to EN 771-1:2011	≥1.0	12	0,3	0,1
Vertically perforated sand-lime bricks KS L, e.g. acc. to EN 771-2:2011	≥1.4	12	0,4	0,3
Lightweight concrete hollow blocks, Hbl e.g. acc. to EN 771-3:2011	≥0.8	2	0,2	0,2
Vertically perforated clay bricks, HLz e.g. acc. to EN 771-1:2011	≥0.9	12	0,25	0,1
Lightweight concrete solid blocks, Vbl e.g. acc. to EN 771-3:2011	≥0.8	2	0,2	0,1

**Table C3: Point thermal transmittance according to EOTA Technical Report TR 025:2007-06**

Anchor type	Thickness of insulation $h_D$ [mm]	Point thermal transmittance $\chi$ [W/K]
KEW TSDL-V (galvanized steel)	50 <sup>1)</sup> - 270	0,002
KEW TSDL-V (stainless steel)	50 <sup>2)</sup> - 270	0,001

<sup>1)</sup> for vertically perforated bricks and  $h_D = 50$  mm:  $\chi = 0,001$  W/K

<sup>2)</sup> for concrete and  $h_D = 50$  mm:  $\chi = 0,002$  W/K

**Table C4: Plate stiffness according to EOTA Technical Report TR 026:2007-06**

Anchor type	Diameter of anchor plate [mm]	Load resistance of anchor plate [kN]	Plate stiffness [kN/mm]
KEW TSDL-V	60	1,75	1,24

**Insulation support – metal nail KEW TSDL-V and KEW TSD-V WS**

**Performances**  
Displacements, point thermal transmittance, plate stiffness

**Annex C 2**