



INSTYTUT TECHNIKI BUDOWLANEJ



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## European Technical Assessment

**ETA-24/1124**  
**of 22/09/2025**



### General Part

**Technical Assessment Body issuing the European Technical Assessment**

Instytut Techniki Budowlanej

**Trade name of the construction product**

Schöck Isolink type C-Y

**Product family to which the construction product belongs**

Glass fibre-reinforced plastic connectors for use in sandwich walls made of concrete

**Manufacturer**

Schöck Bauteile GmbH  
Schöckstraße 1  
D-76534 Baden-Baden, Germany

**Manufacturing plant**

Schöck Bauteile GmbH  
Ringstraße 2  
D-06188 Landsberg, Germany

**This European Technical Assessment contains**

12 pages including 3 Annexes which form an integral part of this Assessment

**This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of**

European Assessment Document (EAD)  
330387-00-0601 "Glass fibre-reinforced plastic connectors for use in sandwich and element walls made of concrete"

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## Specific Part

### 1 Technical description of the product

Schöck Isolink type C-Y are a glass fibre-reinforced plastic connectors (GFRP) with nominal diameter of 12 mm. The ends of the connectors are straight or inclined at an angle of 60°. The C-Y connectors have a polypropylene (PP) depth stopper.

Connectors are embedded on both sides in the concrete.

Schöck Isolink type C-Y description is given in Annex A.

### 2 Specification of the intended use in accordance with the applicable European Assessment Document (EAD)

Schöck Isolink type C-Y connectors are intended to be used to connect cover layers to structural layers for Sandwich walls made of concrete.

Sandwich walls consist of a precast cover layer, an thermal insulation layer and a precast structural layer.

The performance given in clause 3 are only valid if the connectors are used in compliance with the specifications and conditions given in Annex B.

The provisions made in this European Technical Assessment are based on an assumed working life of the products of 50 years, when installed in the works, provided that connectors are subject to appropriate installation, in accordance with the manufacturer's recommendations. The indications given on the working life cannot be interpreted as a guarantee given by the producer or Technical Assessment Body, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

### 3 Performance of the product and references to the methods used for its assessment

Performance of connectors related to the Basic Requirements is given in Table 1.

**Table 1**

No	Essential characteristic	Assessment method (EAD clause)	Performance
<b>Mechanical resistance and stability (BWR 1)</b>			
1	Resistance to GFRP failure under compression load	2.2.1	Annex C1
2	Resistance to concrete failure under compression load	2.2.2	Annex C1
3	Resistance to GFRP failure under tension load	2.2.3	Annex C1
4	Resistance to concrete failure (cracked and uncracked concrete) under tension load	2.2.4	Annex C1
5	Resistance to GFRP failure under shear load	2.2.5	Annex C1
6	Resistance to concrete failure under shear load	2.2.6	Annex C1

Table 1

No	Essential characteristic	Assessment method (EAD clause)	Performance
7	Maximum acceptable shear deformation	2.2.7	Annex C1
8	Minimum edge distances and spacing	2.2.8	Annex B2
9	Modulus of Elasticity	2.2.9	Annex B2
10	Geometric parameters	2.2.10	Annex B2

**4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base**

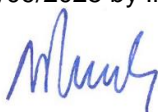
According to Decision 1997/463/EC of the European Commission, the systems of assessment and verification of constancy of performance 2+ apply (see Annex V to regulation (EU) No 305/2011).

**5 Technical details necessary for the implementation of the AVCP system, as provided in the applicable European Assessment Document (EAD)**

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited in Instytut Techniki Budowlanej.

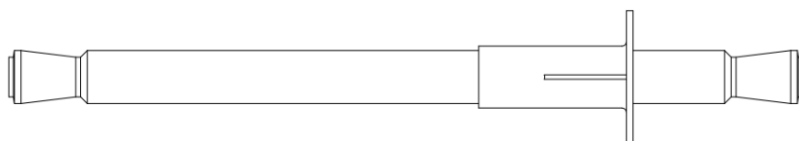
For type testing the results of the tests performed as part of the assessment for the European Technical Assessment shall be used unless there are changes in the production line or plant. In such cases the necessary type testing has to be agreed between Instytut Techniki Budowlanej and the notified body.

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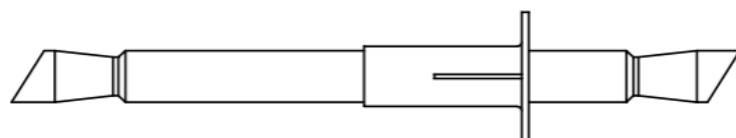


Anna Panek, MSc  
Deputy Director of ITB

**Figure A1.** Schöck Isolink type C-Y with straight end



**Figure A2.** Schöck Isolink type C-Y with inclined at an angle of 60° end

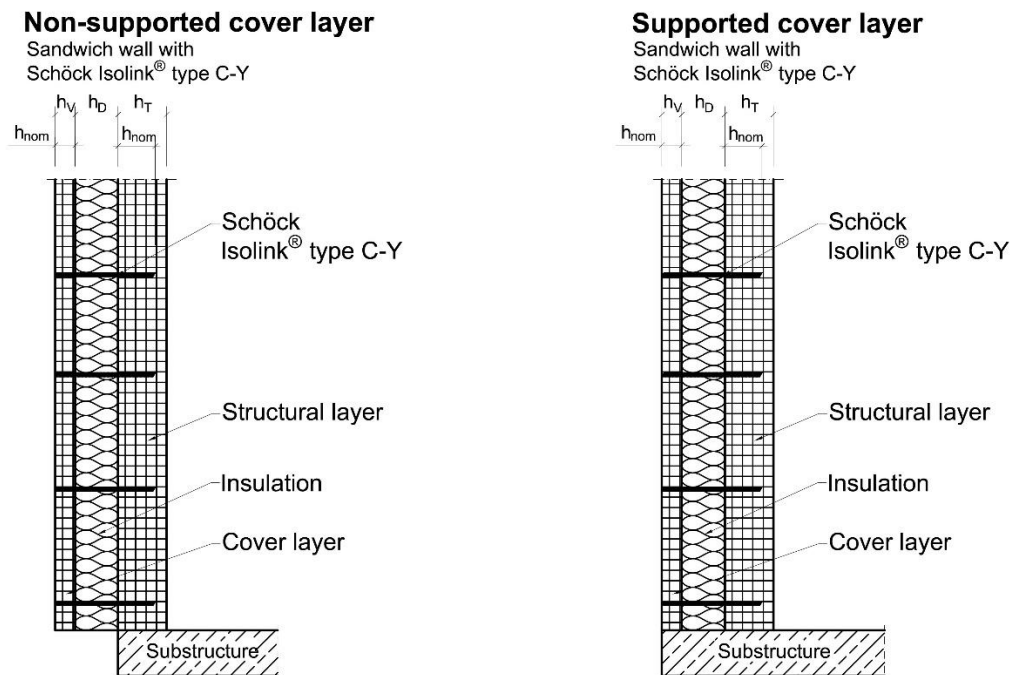


**Schöck Isolink type C-Y**

**Product description**  
Dimensions

**Annex A1**  
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**Figure A3.** Schöck Isolink type C-Y with non-supported and supported cover layer



**Schöck Isolink type C-Y**

**Product description**

Installation conditions of Schöck Isolink type C-Y – walls with non-supported and supported cover layer

**Annex A2**  
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## Specification of intended use

### Connectors subjected to:

- Elements that are subject to static and quasi-static actions in tension, compression and shear.
- Structural concrete elements made of reinforced normal weight concrete of classes C20/25 to C50/60 according to EN 206.
- Cracked or uncracked concrete.

### Use conditions (environmental conditions):

- Connectors are intended to be used with a temperature on the surface of the concrete cover layer between +65°C and -20°C (maximum short-term temperature of +65°C and maximum long-term temperature of +40°C).

### Design:

- Concrete elements are designed according to EN 1992-1-1:2004+AC:2010.
- Connectors are designed under the responsibility of an engineer experienced in anchorages and concrete work.
- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored. The positions of the connectors are indicated on the design drawings (e.g. position of the connector relative to the reinforcement or to supports).
- The connectors are intended to be used for design analogous to EN 1992-4:2018.
- The actual shear deformation is limited to the maximum acceptable shear deformation according to Annex C1.

### Installation requirements:

- The installation of the connectors is carried out by appropriately qualified personnel under the supervision of the person responsible for the technical matters on site.
- Use of the connector as supplied by the manufacturer only – without any alterations to connectors.
- Installation in accordance with the manufacturer's specifications given in Annex B2 to B4.

<b>Schöck Isolink type C-Y</b>	<b>Annex B1</b> of European Technical Assessment ETA-24/1124
<b>Intended use</b> Specifications	

**Table B2.1.** Installation parameters and layer thickness

Description		Value
Overall connector embedment depth in concrete	$h_{nom}$ [mm]	$\geq 40$
Minimum thickness of cover layer	$h_{v,min}$ [mm]	50
Minimum thickness of insulation layer	$h_{D,min}$ [mm]	60
Maximum thickness of insulation layer	$h_{D,max}$ [mm]	160
Minimum thickness of structural layer	$h_{T,min}$ [mm]	50

**Table B2.2.** Geometric and design parameters

Description		Value
Diameter	$d$ [mm]	12
Cross section area	$A$ [mm <sup>2</sup> ]	113
Area moment of inertia in y and z direction	$I_y, I_z$ [mm <sup>4</sup> ]	1161
Modulus of Elasticity under tension and compression load	$E_N$ [N/mm <sup>2</sup> ]	60000
Modulus of Elasticity under bending load	$E_M$ [N/mm <sup>2</sup> ]	60000

**Table B2.3.** Minimum edge distances and spacing

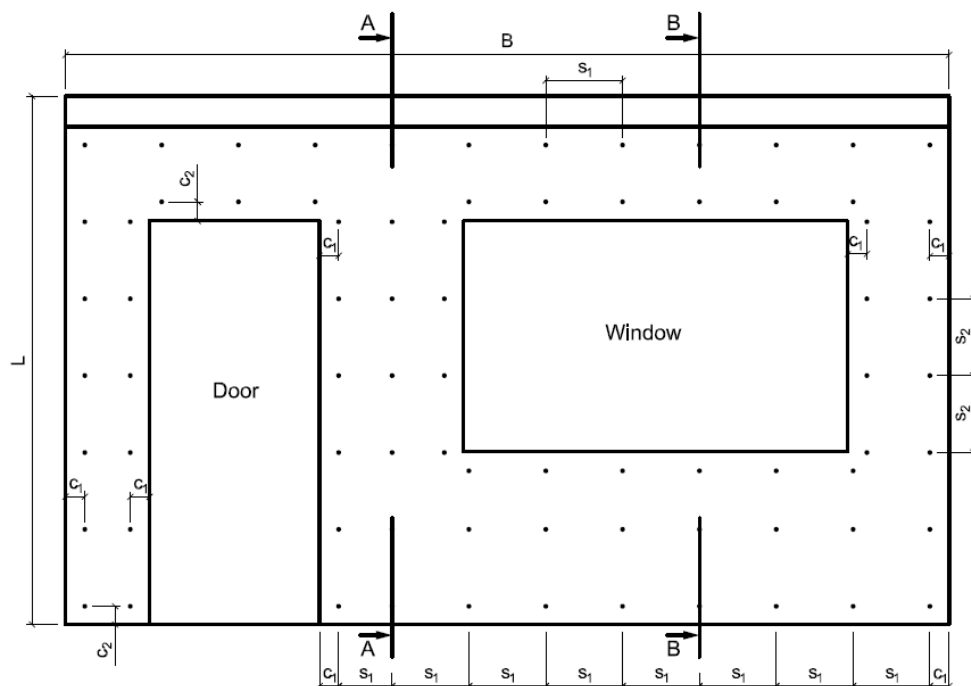
Description		Overall connector embedment depth in concrete $h_{nom} = 40$ mm
Minimum edge distance	$c_{min}$ [mm]	80
Minimum spacing	$s_{min}$ [mm]	160

**Schöck Isolink type C-Y****Intended use**

Installation parameters, layer thickness, geometric and design parameters, edge distance and spacing

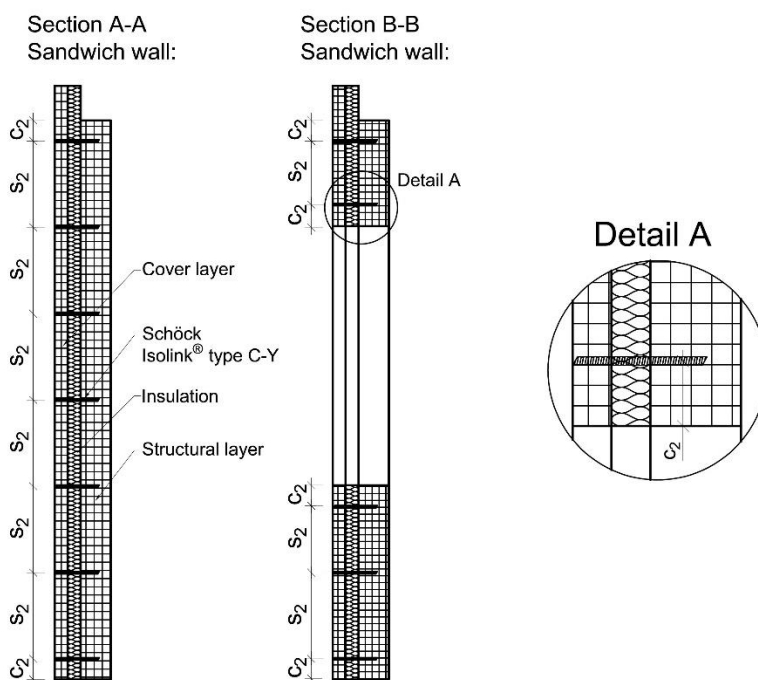
**Annex B2**  
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Arrangement of Schöck Isolink type C-Y in a grid in accordance with structural calculations.

$S_1, S_2 \geq S_{min}$ ,  $C_1, C_2 \geq C_{min}$



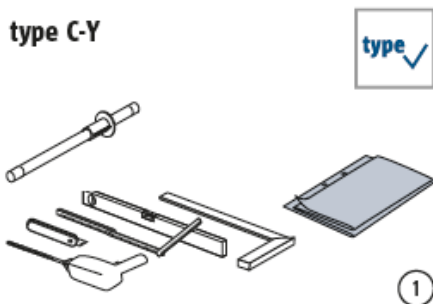
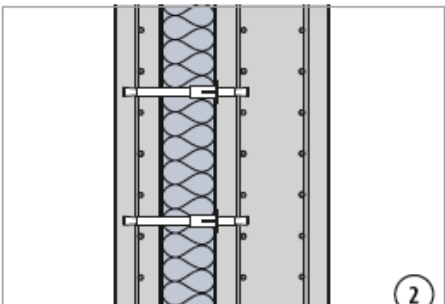
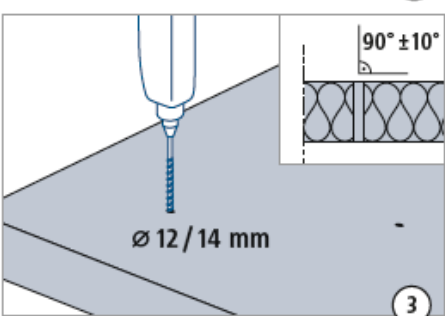
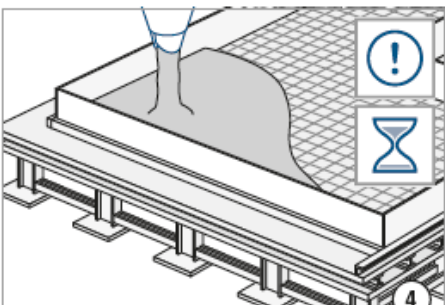
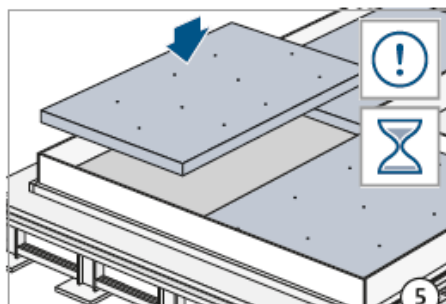
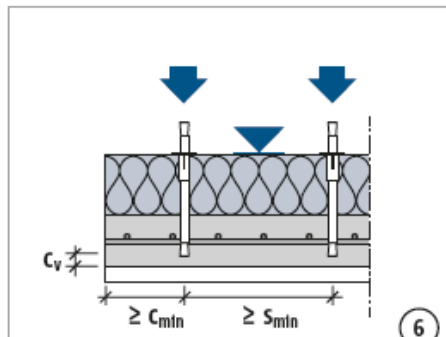
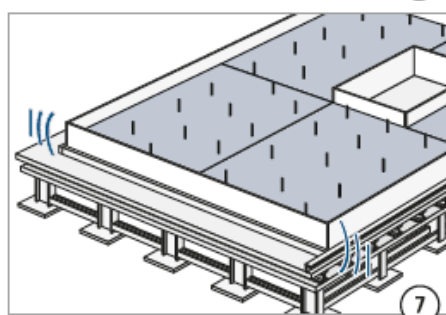
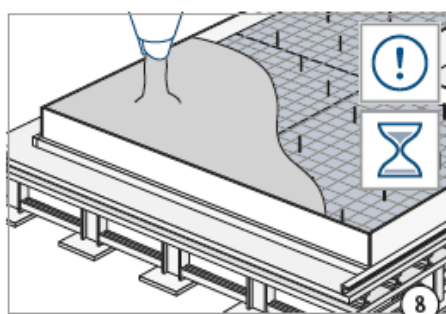
Installation parameters and layer thickness in accordance with Annex B2.

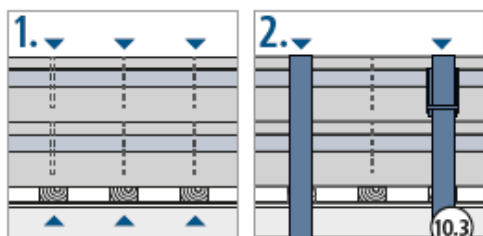
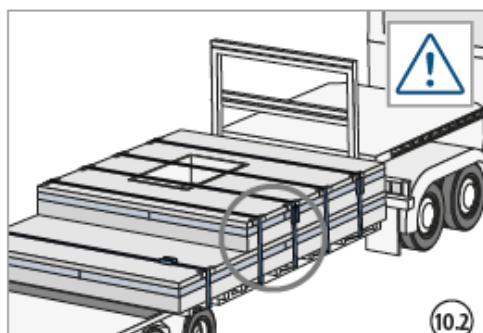
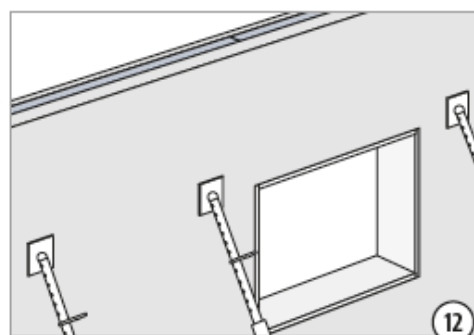
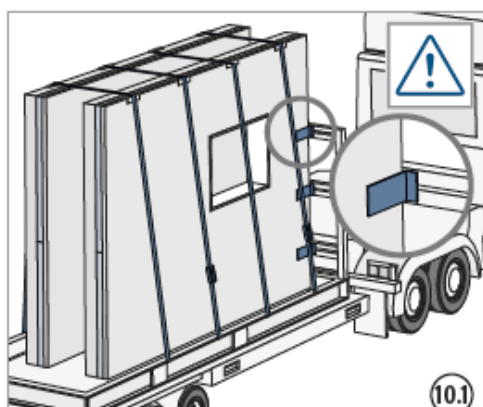
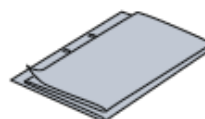
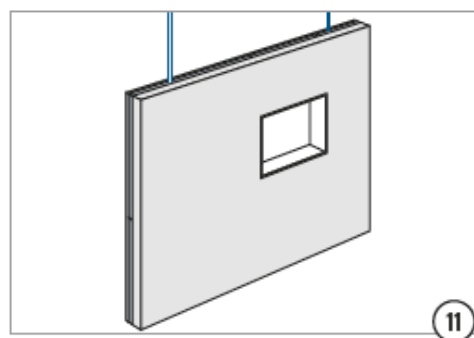
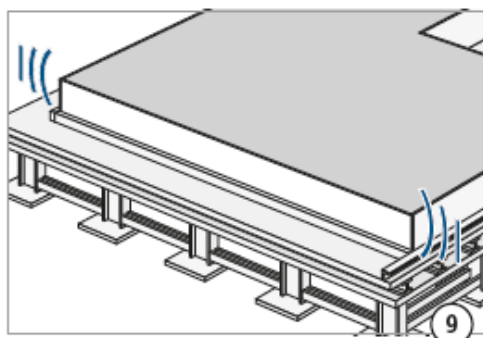
### Schöck Isolink type C-Y

#### Intended use

Example of walls with connectors Schöck Isolink type C-Y

**Annex B3**  
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<p><b>type C-Y</b></p>  <p>①</p>  <p>②</p>  <p>③</p> <p>④ + ⑤ + ⑥ = <math>t &lt; \text{stiffening time}</math></p>  <p>④</p>	 <p>⑤</p>  <p>⑥</p>  <p>⑦</p> <p>⑧ + ⑨ = <math>t &lt; \text{stiffening time}</math></p>  <p>⑧</p>
<p><b>Schöck Isolink type C-Y</b></p> <p><b>Intended use</b> Installation instruction for Sandwich wall with connectors Schöck Isolink type C-Y</p>	<p><b>Annex B4.1</b> of European Technical Assessment ETA-24/1124</p>



### Schöck Isolink type C-Y

#### Intended use

Installation instruction for Sandwich wall with connectors  
Schöck Isolink type C-Y

**Annex B4.2**  
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**Table C1:** Characteristic resistance under compression, tension and shear loads and maximum acceptable shear deformation

Essential characteristic		Thickness of insulation $h_D$	Overall embedment depth of the connector in concrete $h_{nom} = 40$ mm
Resistance to GFRP failure under compression load	$N_{Rk,GFRP,D}$ [kN]	160 mm	43,9
Resistance to concrete failure under compression load	$N_{Rk,c,D}$ [kN]	60 to 160 mm	4,8 <sup>1)</sup>
Resistance to GFRP failure under tension load	$N_{Rk,GFRP}$ [kN]	60 to 160 mm	7,6
Resistance to concrete failure under tension load (uncracked concrete)	$N_{Rk,c,ucr,C20/25}$ [kN]	60 to 160 mm	8,6
	$N_{Rk,c,ucr,C50/60}$ [kN]	60 to 160 mm	14,8
Resistance to concrete failure under tension load (cracked concrete)	$N_{Rk,c,cr,C20/25}$ [kN]	60 to 160 mm	6,4
Resistance to GFRP failure under shear load	$V_{Rk,GFRP}$ [kN]	60 mm	2,9
		160 mm	1,8
Resistance to concrete failure under shear load	$V_{Rk,c}$ [kN]	60 to 160 mm	4,0
Maximum acceptable shear deformation	$w_{max}$ [mm]	60 mm	2,0
		160 mm	5,3

<sup>1)</sup> with a thickness of concrete of  $\geq 50$  mm

**Schöck Isolink type C-Y**

**Performance**  
Characteristic resistances and deformation

**Annex C1**  
of European  
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