

PRODUCT DECLARATION BY THE CONCRETE ASSOCIATION OF FINLAND TYPE 5B - EC 2 FASTENING ITEM

number

97

Representative of the fastening item in Finland:

Peikko Finland Oy

PL 104 (visiting address Voimakatu 3),
15101 LAHTI

Manufacturer of the fastening item:

Peikko Group Oy

Type and identification of the fastening item:

Corner Protectors

KKT/KKTR/KKTH UKT/UKTRr SKT/SKTRr
KS/KSR/KSRr RLRK/RLRKr

Figure of the fastening item



Function principle of the fastening item:

Corner Protectors are structural elements embedded in concrete. Models KKT, UKT, and SKT transfer loads to concrete.

DECISION OF SUOMEN BETONIYHDISTYS R.Y. (THE CONCRETE ASSOCIATION OF FINLAND)

The Concrete Association of Finland has processed this product declaration and has approved it on the basis of the available documentation. The declaration provides sufficient explanation of the properties and matters related to the usage of the fastening item, which is intended for concrete structures, providing that planning is based on Eurocode standards and relevant national amendments.

When the fastening item is used, the product declaration should be considered along with the following matters:

1. A valid product declaration for the fastening item, as granted by the Concrete Association of Finland, must be available on the manufacturing site.
2. A product declaration for the fastening item, as granted by the Concrete Association of Finland, must be available on the construction site, along with the product's user manual.
3. Usage areas for the fastening item.

This product declaration is valid until 20.6.2024 in the absence of any information that would represent grounds for the declaration to be withdrawn.

This declaration has been made in two original copies, one of which is stored at the offices of the Concrete Association of Finland.

Helsinki June 20th, 2019
Suomen Betoniyhdistys ry.

Matti Pentti
Chair

Tarja Merikallio
Managing Director

The Concrete Association of Finland is an independent technoscientific association that promotes the correct use of concrete. Its members are active in an extensive range of concrete construction areas. The association publishes technical instructions, participates in certifying personal competencies in the concrete sector, organizes training and members' events, initiates and steers development projects, and provides consulting services to the Ministry of the Environment. Applications for product declarations from the Concrete Association of Finland are processed by the Association's divisions, which contain independent experts who are nominated by the Association's board. This product declaration is intended for responsible professionals in the construction sector who are able to appropriately apply the guidance provided in the product declaration on construction sites and who can understand the restrictions related to product usage while taking responsibility for applying them to their own work. Although the Concrete Association of Finland has nominated Finland's best independent experts to the divisions that process product declarations, neither the Concrete Association of Finland nor its members or any personnel involved in preparatory work may be held responsible for the guidelines provided in this product declaration.

1. Operation of the fastening item

Corner Protectors are structural elements embedded in concrete. They consist of a steel L-profile and either welded headed studs or ribbed anchor bars.

2. Manufacture of the fastening item

- 21 Components:
- L-profile

Headed studs/ribbed anchor bars
- 22 Manufacturing method
- L-profile

Ribbed anchor bars

Thermal or mechanical cutting

Mechanical cutting
- 23 Welding
- Manual and robotic MAG-welding (135, 138; SFS-EN ISO 4063)

Weld quality level C (SFS-EN ISO 5817)

3. Dimensions, tolerances, and coating of fastening parts

- 31 Dimensions and weights
- Dimensions of the Corner Protectors are introduced in the Technical manual section 1.3.
- 32 Tolerances
- Length of the L-profile: ± 15 mm

Length of the anchorage: ± 5 mm

Location of the anchorage:

Anchor bars ± 5 mm

Headed studs (KKT) ± 15 mm
- 33 Coatings
- Front surface and edges of the Corner Protectors are painted with shop primer 40 µm. Corner Protectors can be delivered also epoxy coated or hot dip galvanized according to applicable standard. Stainless steel Corner Protectors are delivered without surface treatment.

4. Properties of the fastening item's materials (standards, strength values, composition, weldability)

Components	Materials	Standards
L-profiles	S235JR	EN 10025-2
	1.4301	EN 10088
	1.4401	EN 10088
Headed studs	S235J2+N	EN 10025-2
Anchor bars	B500B	SFS 1300 / EN 10080
	B600XB	SFS 1259

5. Labeling, packaging methods, and storage of the fastening items

Labeling: The products bear a label with the following information:

- Inspecta certification label
- Peikko Group's emblem
- The type of the metal component
- The date of manufacture.

Package:

- The products are packed on pallets.

Storage:

- The products are stored indoors.

6. Requirements regulating the concrete structures

61 Strength class and special characteristics of concrete and grout

Corner protectors are designed to concrete with strength class C20/25 or higher.

62 Aggregate quality

The aggregate quality must be in accordance with SFS-EN 12620.

63 Minimum edge distances and spacing required by the procedure

Concrete structure must be designed to resist loads transferred through corner protectors.

64 Nominal concrete cover

Corner protector must be installed so that required nominal concrete cover is fulfilled.

7. Resistances

Tensile and shear resistance of Corner Protectors KKT, UKT, and SKT are introduced in the technical manual.

8. Installation of the fastening item

Corner Protector can be attached to the formwork or to the reinforcement cage before installing to the formwork. It must be fixed to prevent any displacement during casting. Corner Protector can be fixed to the formwork with nails, glue, screws, and double-sided tape. Corner Protectors can be delivered with holes for nails upon request. Rebar anchor bars must be bent out first before installing Corner Protector to the formwork.

9. Special instructions for ensuring adequate fastening

Manufacturing of the concrete elements must follow applicable standard by the type of the element. Installation on site follows SFS-EN 13670 'Execution of concrete structures' and its complementary standard SFS 5975, and SFS-EN 1992-1-1 'Design of concrete structures' and the national annex of Finland. SFS-EN 206 needs to be considered in the concrete performance and production.

10. Structural static calculations (Annex number, calculation name, and date)

Annex 2 Corner Protectors Static Calculation EN + NA of Finland 8.10.2018

11. Acceptance tests performed for the fastening item (Annex number, test body, test report number, and date)

12. Name and publication date of the installation instructions from the manufacturer or representative

Corner Protectors, Technical Manual 05/2019 (English version)

13. Quality control

The manufacturer has a quality control agreement with an accredited external body. Quality control body delivers quality reports to the Concrete Association of Finland. SFS-EN ISO 17660-1 needs to be considered in the welding quality control. This product declaration by the Concrete Association of Finland requires an approved initial inspection for each manufacturer.

14. Other information

15. Additional information, not public (annex number, title, and date)

Annex 2 Corner Protectors Static Calculation EN + NA of Finland 2018-10-8

Annex 3 Manufacturing drawings, dated 22.5.2019

16 Annexes (annex number, title, and date)

Annex 1 Corner Protectors, Technical Manual 05/2019 (English version)

We hereby declare that the information that we have provided is correct

Lahti May 22nd, 2019

Signature

Name (printed) Ilkka Kaipainen Peikko Finland Oy

This product declaration can be withdrawn at the discretion of the Concrete Association of Finland. Reasons for withdrawal may include:

- The information provided when the application for the product declaration was made is shown to be erroneous
- An unreasonable decrease in quality or repeated minor decreases in quality are observed in the product subject to this product declaration