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# PRODUCT CERTIFICATE

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## Peikko Group Oy

manufactures product

### DELTABEAM®

DELTABEAM® is a steel concrete composite beam. The composite action between the steel beam and concrete is based on the dowel action of the pierced or burned holes in the web of the beam. The beam is cast with concrete on-site in connection of joint grouting of the hollow-core concrete slabs or in connection of other casting. After the infill concrete has reached the required strength, the beam acts as a composite beam.

Other load bearing structures as hollow-core concrete slabs, composite slabs, filigrane slabs or cast-in-situ concrete slabs are installed on the beam. The height  $h$  of the beam varies between 180...500 mm and the width  $b_{fb}$  varies between 200...600 mm.

DELTABEAM® is aimed to be used as a load bearing structural component. DELTABEAM® is designed with Peikko Designer® software DELTABEAM® module in Peikko Group for ultimate limit state, serviceability limit state and accidental limit state requirements according to the initial data given by the customer.

The design is based on the standards EN 1990, EN 1991, EN 1992, EN 1993, EN 1994 and their National Annexes. The evaluation of the fire resistance is based on standard fire tests and FEM analyses. DELTABEAM® can be designed to meet the fire resistance requirements of 30, 60, 90, 120 and 180 min.

The steel part of the beam is manufactured in factories by welding. DELTABEAM® is CE-marked as a structural steel component according to the standard SFS-EN 1090-1. The installation of the beam and the finalization of the composite beam on-site shall be done according to the following instructions: Product data sheet, dated 25.3.2017 and DELTABEAM® Technical Manual.

This certificate is based on an initial type testing, computational review of the product and an initial inspection of the factory production control according to the certification criteria SERT R071. According to the results DELTABEAM® can be used as a load bearing structural component provided that the Product data sheet, dated 25.3.2017 has been followed.

This certificate is valid until November 22, 2026 on condition that the product is not essentially changed and the manufacturer and Eurofins Expert Services Oy have a valid contract on quality control. To check the validity of this certificate, [www.sertifikaattihaku.fi](http://www.sertifikaattihaku.fi). Other conditions are listed on the reverse side of the certificate.

Espoo, Finland, November 23, 2021

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Tiina Ala-Outinen  
Manager, Building Structures

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Samuli Korkiakoski  
Senior Expert

*This document has been signed electronically*

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Conditions of validity:

The validity of the certificate will be ended, if the product falls into the scope of CE-marking.

Where reference is made in this certificate to any regulations, publications, standards or other documents, it shall be construed as a reference to such publication in the form of which it is in force at the date of this certificate.

The manufacturer is responsible for the quality and continuous quality control of the product. In granting this certificate, Eurofins Expert Services Oy does not accept responsibility to any person or body for any loss or damage incurred in respect of personal injury arising as direct or indirect result of the use of this product.

The use of the name of Eurofins Expert Services Oy or the name Eurofins in any other form in advertising or distribution in part of this certificate is only permissible with written authorisation from Eurofins Expert Services Oy.

This certificate is the English version of the original Finnish certificate EUFI29-19002502-C, signed November 23, 2021. In case of dispute the Finnish original of the certificate is valid.