



HENGELHOEF
CONCRETE JOINTS

Cosinus Slide® joint

Warehouse developer: **Verdion**

General contractor: **Dansk Halentreprise**

Flooring contractor: **Proreco**



Case study: **Grade A logistics space**

Total area of object: **26000**

Quantity:

1200 meters Cosinus Slide®

300 meters e-straight

Verdion is a real estate investor, developer and asset manager, specializing in the industrial and logistics sector and operating across Europe. They develop high-specification facilities focused on outstanding technical performance for major retail, manufacturing and third-party logistics companies.

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Customer Goals

Warehouse characteristics:

The new state-of-the-art park is located in Allerød Kommune, 25 minutes from Central Copenhagen and close to Northern Zealand's pharmaceutical sector and other industries. Total area of distribution center is 26,000 m².

The solution for the customer

Verdion continuously strives to achieve the highest standards of quality in all areas of their business and the choice of Cosinus Slide for jointless floor slab in their iPark Copenhagen distribution centre is part of this quality commitment. The floor design was optimized by Hengelhoeft Concrete Joints to ensure a suitable solution for all future scenarios.



	Concrete	Reinforcement	Joint load transfer system	Floor thickness	Subgrade	Estimated slab cost per m ²
Original Design	C30/37	21 kg/m ³ high performance steel fiber	discontinuous	180 mm	k = 0,08 N/mm ³	32,22 €
Value Engineered Design	C30/37	25 kg/m ³ high performance steel fiber	continuous (Cosinus Slide®)	160 mm	k = 0,07 N/mm ³	31,82 €

Initial floor design data:

Assumed 40 % load transfer

Governing load case:
90 kN b-t-b 1100-300-1100 mm
Base plate 120/80 mm
Distance to joints = 120 mm

HCJ floor design proposal:

Proven 33 % load transfer

Governing load case:
92 kN b-t-b 1100-350-1100 mm
Base plate 100/100 mm
Distance to joints = 120 mm

Quality control of joints installation by HCJ team was an integral part of the work. As a result, Verdion and its customers will have a safe and worry-free floor for many years.

The value for the customer

Thanks to the continuous load transfer system of "Cosinus Slide® joint", using this solution gave the floor these benefits:

- floor thickness was decreased from 180 mm to 160mm
- saved around 10,000 € on the floor construction
- overall, less floor and MHE maintenance in the future

