

## > PROJECT OVERVIEW

**Customer:** UNIL  
**General Contractor:** AF Gruppen  
**Product:** PrīmXComposite high bay floor in warehouse with freezer  
**Usage:** Warehouse, logistics  
**Address:** Våler Næringspark, Moss, Norway  
**Casted:** June, 2015  
**Area:** 7 543 m<sup>2</sup> (81 192 ft<sup>2</sup>)  
**Slab thickness:** 100 mm (4 in); 120 mm (5 in); 180 mm (7 in); 200 mm (8 in)  
**CO<sub>2</sub> savings:** 113 138 kg (249 426 lb)

# CASE STUDY

## Logistics

### CUSTOMER

UNIL is a part of Norge Gruppen, the largest retailer and market leader in the Norwegian grocery sector and responsible for Norgesgruppen's "Private Label" products. Norge Gruppen employs more than 28,800 direct employees, with over 40,000 total employees when including its franchises. UNIL has more than 2,500 products in its portfolio, including such brands as Change, People, Jippi, Go Eco, First Price, Eldorado, Unique, Fisherman, Jacobs etc.



### CHALLENGE

To ensure more efficient operations, the Company chose to centralize UNIL's multiple warehouses into one new high-bay warehouse. By combining the warehouses, Norge Gruppen was able to switch from a manual to an automated material handling solution. This automated warehouse allowed for high speeds and high precision within the automated warehousing system. This was the highest freezer warehouse building in Norway, 31m in height.



## SOLUTION



To ensure the investment in the automated material handling system was recognized, they chose to install the **PrīmX** Composite floor with no joints or very tight working joints. It is smooth and flat, and stays flat after casting. Due to its very stiff composite concrete material, there is less movement from loads applied. That means the automated warehouse systems can operate without problems, at higher speeds, and with the lowest possible maintenance costs.

Due to steel fiber reinforcement and special material formula, **PrīmX** Composite is much stronger and thinner than traditional concrete floors while still exceeding defined load bearing capacities. By using less concrete, there is also CO<sub>2</sub> emission savings compared to traditional design.



**50%**  
STRONGER



**30%**  
FASTER  
INSTALLATION



**40%**  
LESS CO<sub>2</sub>  
EMISSIONS

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