

Purolator Inc. is a leading integrated freight, package and logistics solutions provider in Canada. Its warehouse/distribution center in Etobicoke, Ontario is a huge mechanical-electrical installation covering 300,000 square feet. More than 4.5 kilometers of conveyor belts move 72,000 packages an hour. At the output end, large telescopic conveyors load trucks. The floor of the facility is constructed with Bekaert steel fiber reinforced concrete.

## The challenge

The use of telescopic conveyors at this facility required a very thick concrete slab underneath each of them to provide the necessary load-bearing capacity. At the same time the solution needed to be cost-effective.

## The solution

The Bekaert team worked closely with the engineer of record to come up with a solution for the floor of the facility as a whole as well as those areas that were to support the telescopic conveyors. Instead of using rebar throughout the facility, as had been originally planned, it was limited to isolated areas where the telescopic conveyors were to be located. Instead, 25 kg/m³ of Dramix® 3D 55/60BL steel fiber reinforced concrete was specified for a 7-inch slab throughout the rest of the facility. This reduced the use of rebar by around 90%, significantly reducing costs and enabling the concrete floor to be poured faster.

## **PUROLATOR**

**ETOBICOKE, ONTARIO, CANADA** 

**PROJECT SPECIFICATIONS** 

Project type:
Warehouse/Distribution
Center

Application: Saw-cut floor

## **PARTNERS**

- General contractor:
   Permaleau
- Flooring contractor: United Floor Ltd
- Designer: Dorlan Engineering Consultants Inc.



Location: Etobicoke, Ontario, Canada