

Gay Lea Foods is a dairy products co-operative in Canada producing a variety of dairy products for retail, foodservice, industrial and export markets. For its 140,000 square foot freezer warehouse in Brampton, Ontario, Bekaert proposed a high-performance, low-maintenance steel fiber reinforced concrete floor.

The challenge

A frequent problem with freezer warehouses is that the concrete floor tends to expand and contract depending on how the facility is operated. When the temperature in the facility is low, the concrete contracts. Whenever maintenance is performed and the cooling system is switched off, the concrete expands. This continued expansion and contraction can cause cracks in the concrete, particularly around saw-cuts between concrete slabs. The challenge was therefore to develop a low-maintenance concrete floor.

The solution

Working closely with the designer, general contractor and flooring contractor, the Bekaert team proposed a jointless floor using 150 x 150 foot concrete slabs incorporating Dramix® 4D 55/60BG steel fibers. By significantly reducing the number of joints, this reduces problems at saw-cuts caused by expansion and contraction of concrete. Moreover, the steel fibers were incorporated in a Type-K expansive cement. The shrinkage compensating agent expands within approximately seven days after pouring, displaying shrinkage characteristics of that of normal concrete, before returning to its approximate original volume. High-performance quality materials ultimately gave Gay Lea an extremely durable and long-lasting solution. Over time, this solution also yielded additional savings on floor maintenance, equipment maintenance, and higher efficiency rates.

GAY LEA DISTRIBUTION FACILITY BRAMPTON, ONTARIO PROJECT SPECIFICATIONS Project type: Warehouse/Distribution Center Market: Industrial Application: Jointless floor Product: Dramix® 4D PARTNERS • Developer: Orlando

Tenant: Gay Lea

United Floors

Flooring contractor:

• Engineer office: McIntosh Perry

Brampton, Ontario