

Gerdau Upgrade

Whitby, ON, Canada (2017)

PRODUCT USED:

Hard-Cem®

OWNER:

Gerdau

ENGINEER:

Barry Bryan Associates

GENERAL CONTRACTOR:

Collaborative Structures Ltd.

READY-MIX SUPPLIER:

The Miller Group

DISTRIBUTOR:

Form & Build Supply

BACKGROUND

Gerdau's metal recycling plant in Whitby has been in operation for decades and still continues to this day. It's a feat that the company could have only achieved through their focus on fostering customer trust. With this focus in mind, they made it easy and worthwhile to recycle both steel and other types of metal. Anyone who had miscellaneous metal-containing material (i.e., scrap metal) or end-of-life vehicles to recycle were welcomed with a quick, easy recycling process and clean yards. In return for receiving this scrap metal, Gerdau would then shred the material in their recycling plant and recover it for reuse in the adjacent steel mill on-site.

Despite the company's successful attempt at establishing a metal recycling plant in Whitby, there were still bumps in the process that they had to iron out. In fact, ever since their plant opened, Gerdau had struggled to find abrasion-resistant solutions for their exterior concrete slabs, which are exposed to heavy industrial work and suffer from constant wear. In recent years, the company has been working on exterior gravel and dirt surfaces because any concrete in their exterior slab environment had fallen apart quickly.

SOLUTION

After learning about the integral hardening admixture, Hard-Cem, however, Gerdau and Barry Bryan Associates' team agreed that it was the solution they needed for the plant's exterior slabs. The team then used Hard-Cem for their 305-millimeter-thick (12-inch-thick), 1,394-square meter (15,000-square foot) exterior air-entrained concrete slab. They chose Hard-Cem for this task because it works well with air-entrained concrete and most importantly, it doubles concrete wear life, even when under harsh conditions. As a result, Hard-Cem is able to provide a durable abrasion-resistant surface for Gerdau's concrete slabs, allowing them to last longer in their heavy industrial environment. This in turn will improve operational efficiency, site conditions, and market pricing for Gerdau's products as they will not contain any dirt contamination.



SMART CONCRETE®