Fibres, Yes Please!

Long-term performance and impact resistance – why you should add fibres to your next mix.

Many concrete customers currently use welded wire mesh (WWM) in their concrete applications to hold concrete together after cracking has occurred. Not only is this system frequently installed incorrectly, but it is used to fix a problem that has already occurred and does not aid in preventing the problem. This traditional system is outdated and can be avoided by adding steel or micro-synthetic fibres to concrete, a process Dufferin Concrete has been using for over 20 years.

Fibres are small reinforcing materials that provide added structural integrity and durability to concrete applications, aiding against plastic shrinkage cracking (hairline surface cracks due to water evaporation during setting). Unlike conventional reinforcement, fibres are distributed evenly throughout the concrete application. Fibres can reduce plastic shrinkage cracking by up to 90% by providing concrete with early tensile strength and intercepting and arresting micro cracks as they travel through the concrete. This application can be used in industrial floors, residential applications, composite steel decks, and agricultural applications, as well as roads, parking lots and slabs. With the proper dosage, fibres are engineered to replace conventional steel reinforcing such as WWM and smaller diameter rebar.

Dufferin Concrete provides fibres readily mixed into the concrete, delivered at the job site ready to pour eliminating the need to store or manage reinforcing materials. We have offered synthetic fibres to customers for many years and now not only supply the fibres, but can also support in the redesign of projects where rebar or WWM have been specified. The added strength of certain fibres is equivalent to steel but with better control for shrinkage, cracking and segregation. It eliminates surface and internal corrosion and is a cost-effective solution in comparison to WWM. Fibres can be specified in many applications to improve the consistency of concrete during placement, provide spalling protection and freeze-thaw durability.

Talk to one of our sales representatives about why incorporating steel or structural fibres into your next mix can be the right choice for your project.

BENEFITS OF FIBRE-ENFORCED CONCRETE

- Ease of placement and finishing - delivered in the concrete, no extra orders to place
- Accelerated concrete placement time - reduced project time
- Equivalent strength to steel - better control of plastic shrinkage, cracking and reduced segregation
- Cost effective replacement for welded wire mesh (WWM)
- No storage needed for fibres or other reinforcing materials
- Safety - no handling and tripping hazards (as with WWM)
- No surface or internal corrosion

APPLICATIONS

- Industrial floors
- Residential applications (driveway, garage, porch, walkway, basement floor)
- Composite steel deck
- Shotcrete applications
- Agricultural applications
- Roads, parking lots, slabs