



Adfil® Fibers

Reinforcing
Concrete

Reinforcing
Innovation

Reinforcing
Our Planet

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September 17, 2025



Agenda

01 Intro to Adfil

02 Using Fibers & Engineering

03 Project Profiles

04 Fire Protection

05 Benefits of Macro

06 Next steps & Questions

Construction Chemicals

Business Unit



Commercial Presence in more than **100 Countries**



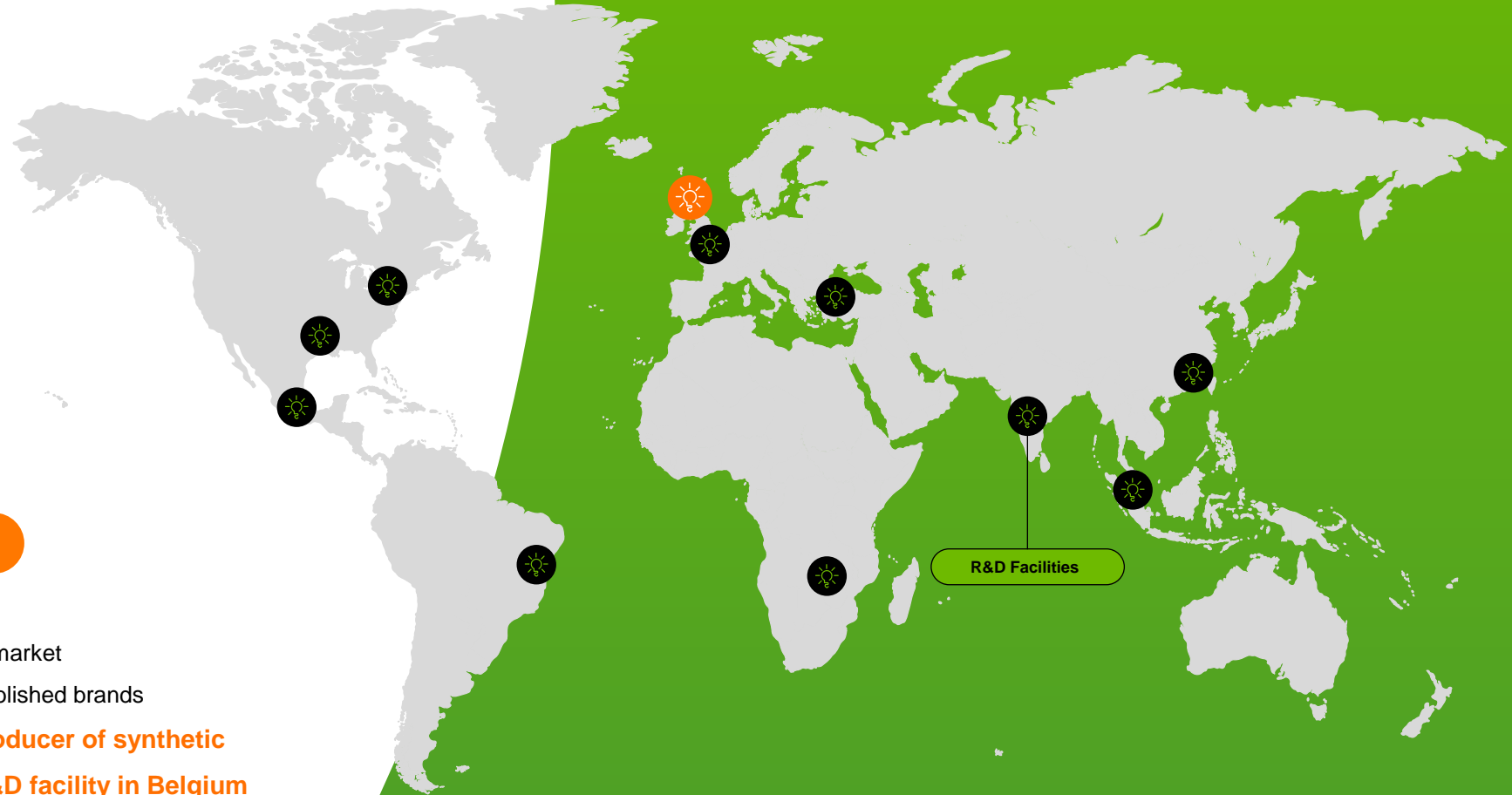
Over **2,700 Employees**



More than **80 Plants**

ORGANIZED BY REGIONS & MARKETS

- Cement Additives - World leader
- Concrete Admixtures - 2nd on the market
- Specialty Building Materials - established brands
- **Adfil – since 1988 leading producer of synthetic concrete fibers New HQ & R&D facility in Belgium**

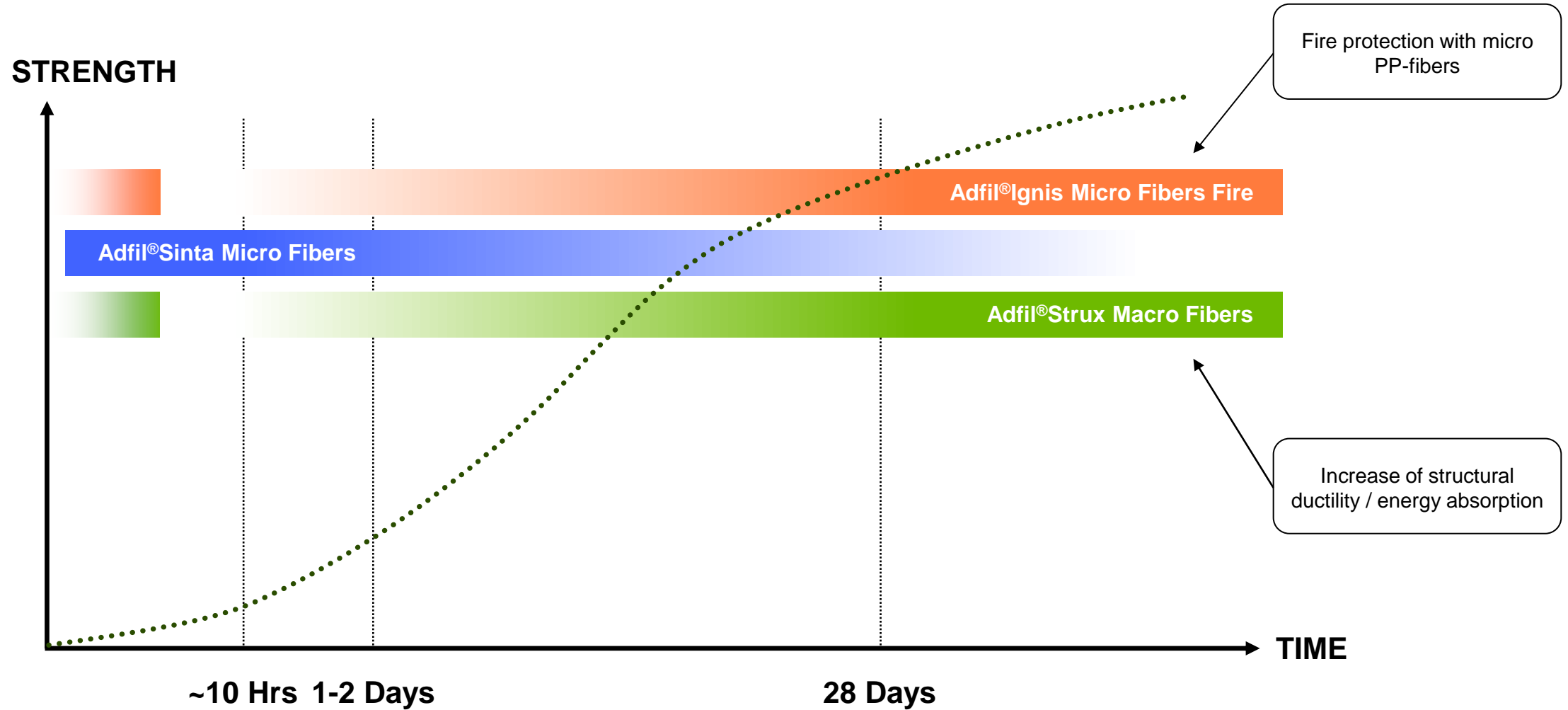


02

Using Fibers & Engineering



Choosing the Correct Fiber Solution



Synthetic Fiber Benefits

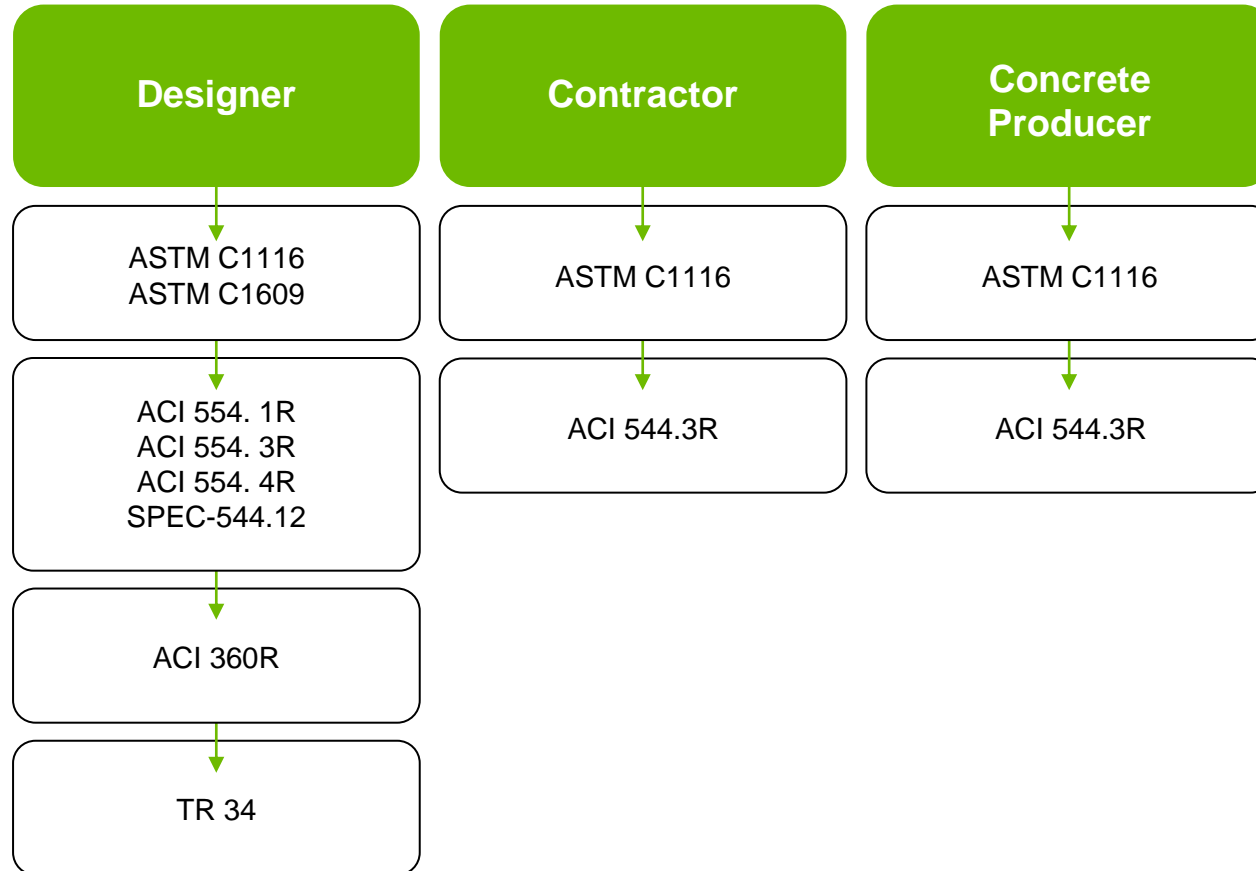
	Macro Fibers Temperature and Drying Shrinkage Control and Plastic Shrinkage Control	Welded Wire Reinforcement Temperature and Shrinkage Control
	Adfil®Strux 3040	WWR 6x6 – W1.4 x 1.4
FIRE RATED		
UL Certification	YES (max 5 lb / cu. yd.)	YES
Weight Approx. Per 100 sq.ft	4.92	21
SDI STANDARD		
ANSI / SD1 C 1.0 Standard	YES (max 5 lb / cu. yd.)	YES
BENEFITS: PLASTIC CONCRETE		
Safe, Easy Handling	✓	
Plastic Shrinkage Crack Control	✓	
BENEFITS: HARDENED CONCRETE		
Drying Shrinkage Crack Control	✓	
Post-crack Load Carrying Capacity	✓	
Non-corroding	✓	
OTHER BENEFITS		
No Chairs Required	✓	
Uniform Dispersion	✓	
Minimum Concrete Cover Required		✓
Pumpability	✓	
Saves Time	✓	
Easy to Finish	✓	✓

Synthetic Fiber Benefits

	Micro Fibers Plastic Shrinkage Control		Welded Wire Reinforcement Temperature and Shrinkage Control
	Adfil®Sinta M2219	Adfil®Sinta F19	WWR 6x6 – W1.4 x 1.4
FIRE RATED			
UL Certification	YES (max 1 lb / cu. yd.)	YES (1 lb / cu. yd.)	YES
Weight Approx. Per 100 sq.ft	n/a	n/a	21
SDI STANDARD			
ANSI / SD1 C 1.0 Standard	NO	NO	YES
BENEFITS: PLASTIC CONCRETE			
Safe, Easy Handling	✓	✓	
Plastic Shrinkage Crack Control	✓	✓	
BENEFITS: HARDENED CONCRETE			
Drying Shrinkage Crack Control			
Post-crack Load Carrying Capacity			
Non-corroding	✓	✓	
OTHER BENEFITS			
No Chairs Required	✓	✓	
Uniform Dispersion	✓	✓	
Minimum Concrete Cover Required			✓
Pumpability	✓	✓	
Saves Time	✓	✓	
Easy to Finish	✓	✓	✓

Navigating the Complexity of Fiber Projects

Leverage our Engineering Services Group



- **Expert guidance** on selecting the right fibers for your project needs
- **Design support** using advanced tools to optimize fiber-reinforced concrete
- **Customized solutions** tailored to unique project requirements
- **Ongoing support** throughout the project lifecycle for success

03

Project Profiles



**Fiber replaced WWM,
enabling complex
architectural panels and
reducing CO₂.**

**64% of concrete
used 50% slag cement.**

SEATTLE STORM
CENTER FOR BASKETBALL PERFORMANCE

Overall, the project exceeded a 40% reduction compared to typical average mixes in the region, and achieved 80% of the 2030 targeted reductions of the First Movers Coalition for concrete. Photo ©ZGF

CO₂ Impact vs. Welded Wire Mesh

Architectural Panels



Technical Challenge

- Panels were 2.5 in thick with 1 in corrugation
- Specified reinforcement of 4x4-W4.0xW4.0 welded wire mesh was difficult to keep in place during concrete placement without damaging the aesthetic of the panels




Solution

4 pcy of Adfil® Strux 75/32 for crack width control and improved aesthetic



Result

Carbon reduction for the reinforcement per square foot **90%**

A high-speed train, labeled 'SRL', is shown in a tunnel. The train is primarily green with silver accents. It is positioned on tracks, and the tunnel walls are visible. The lighting is dramatic, with strong highlights on the train's front and the tunnel ceiling.

**26-kilometer metro
corridor in North
Melbourne using
Adfil®Ignis 1812 for
passive fire protection**

**Fire panel trials for 100,000 tunnel segments using
over 240 tons of Adfil®Ignis 1812 demonstrated
effective passive fire protection without
compromising air entrainment**

Project Support with Adfil® Ignis 1812

Fire Panel Trials



Trial Mix

- Successful alignment with admixture suite for the concrete mix design. New admixture developed to combat any potential air issues with Ignis
- Initial fiber dosage at 1.5kg/m^3 , client made the decision to use 2kg/m^3



Number of Flat Panels

Number of flat panel pieces cast during testing **12**



Number of Curved Panels

Number of curved panels cast during testing **24**

An aerial photograph showing a long, straight road under construction in a rural area. Several concrete trucks are lined up along the road, and workers are visible on the ground. The surrounding landscape consists of green fields and trees under a clear sky.

**26,000 yd³ Fiber
Reinforced White Topping**

**Material: Adfil®Strux 90/40
@ 4.5 lbs/yd³**

**Benefits: Easy to finish,
high solar reflectivity,
less heat absorption**

**Chryso Engineering services team involved to
determine dosage rate and meet requirements of
INDOT. Happy customer with the aesthetics and
ease of finish.**

A large-scale construction project inside a massive industrial building with a high, arched metal roof. Several workers in high-visibility yellow vests and hard hats are working on a concrete slab. They are using a rebar grid and a pump hose to pour concrete. In the background, a white concrete pump truck is visible. The scene is well-lit, with light coming from the roof's skylights.

**Adfil®Strux BT50: Dosage:
10 lb/yd³ (vs. 44 lb/yd³ steel)**

**Benefits: Superior workability,
finishability, corrosion resistance,
safety, and ease of handling**

**Performance: Equivalent
flexural strength to steel,
tested per ASTM C1609**

The successful conversion of steel fibers to synthetic fiber saved time and money by keeping the project on schedule. The owner was pleased with the floor appearance and has used Adfil®Strux BT50 on additional phases of the project.

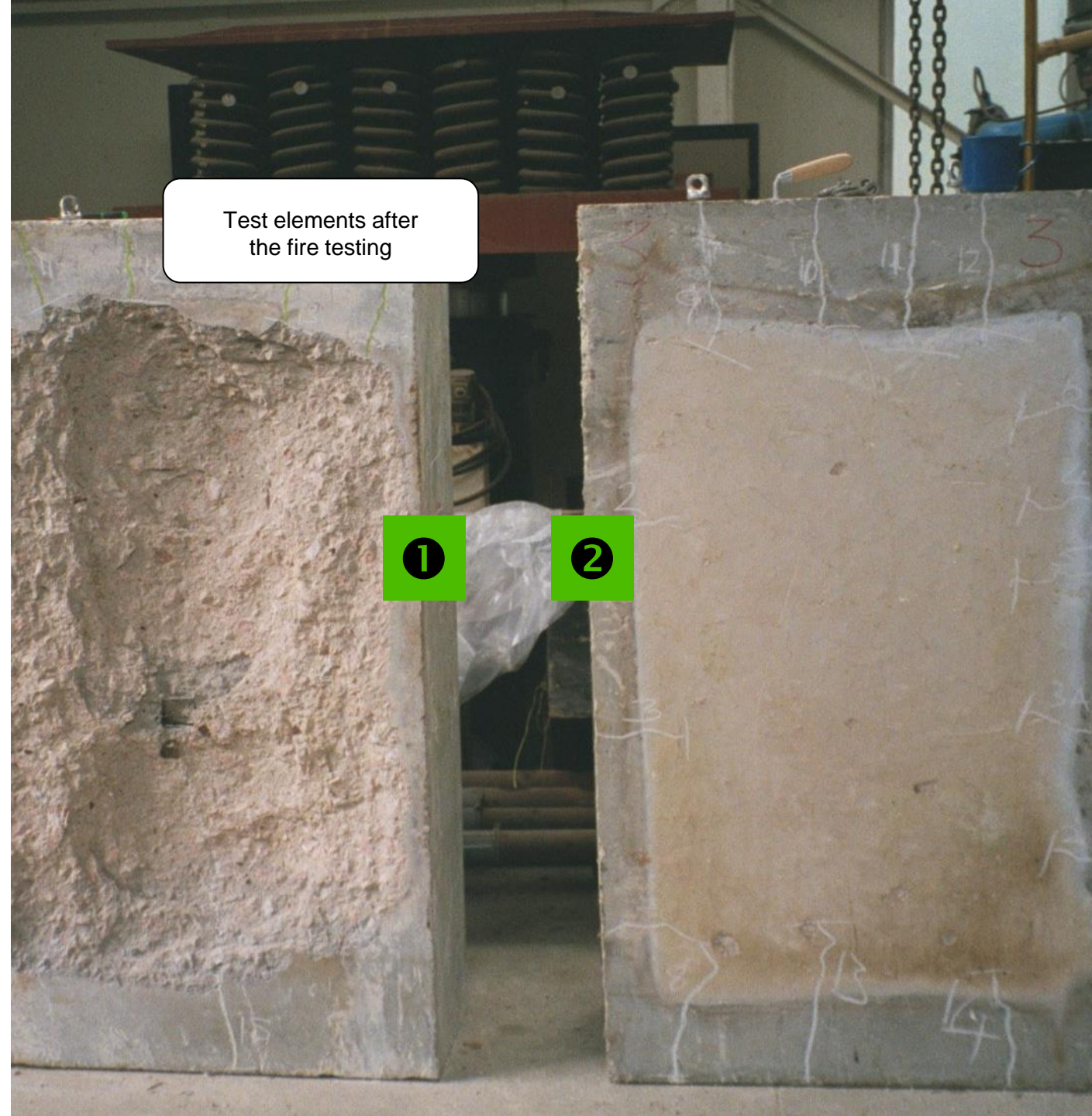
04

Fire Protection



Enhancing Fire Resistance With Adfil® Ignis Micro Synthetic Fibers

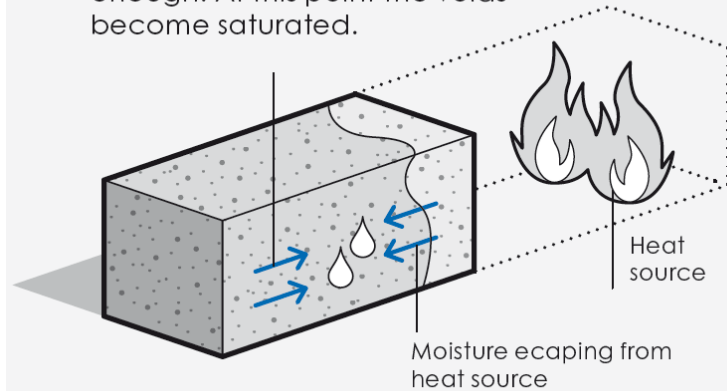
- 1 Plain concrete
- 2 Concrete with 1kg w/ IGNIS® Micro Synthetic Fibers



A Look Into Passive Fire Protection

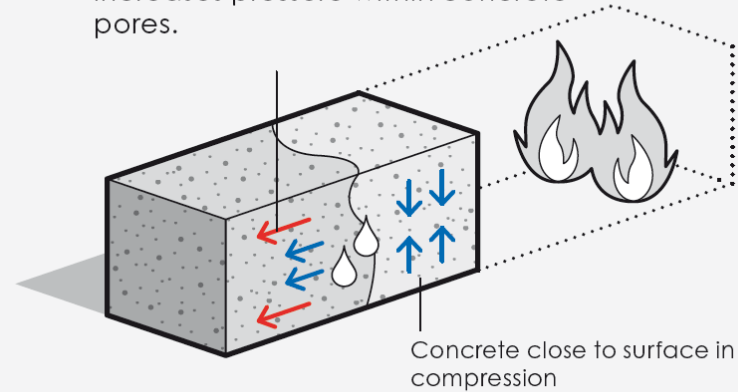
1

High quality dense concrete means that moisture can't escape quickly enough. At this point the voids become saturated.



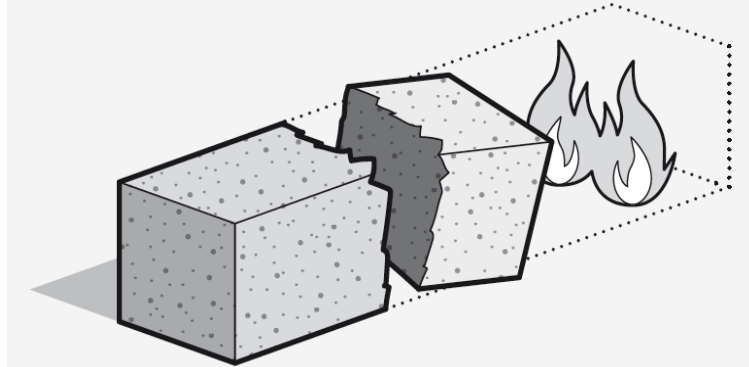
2

Hot front quickly overtakes moist front. Moisture starts to vaporise and increases pressure within concrete pores.



3

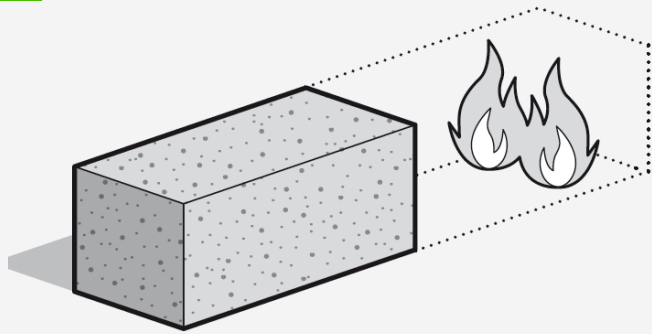
Crack and explosion



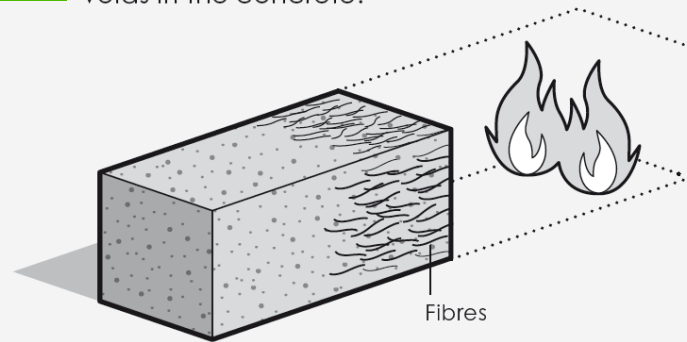
Enhancing Fire Resistance

With Adfil® Ignis Micro Synthetic Fibers

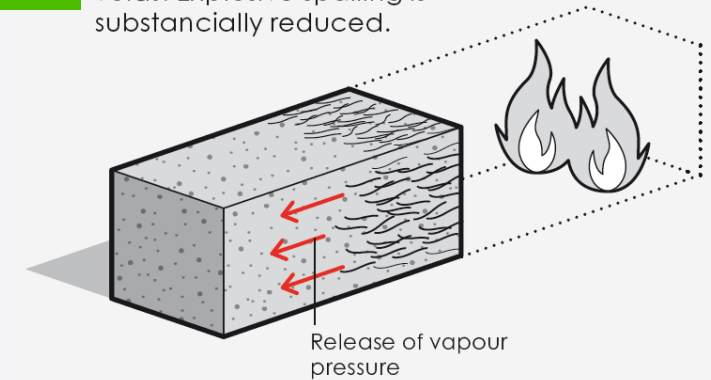
1 The fibres will melt at 160° C



2 When the temperature reaches 360° C, the fibres will disintegrate, creating voids in the concrete.



3 Vapour pressure is released through the newly formed voids. Explosive spalling is substantially reduced.



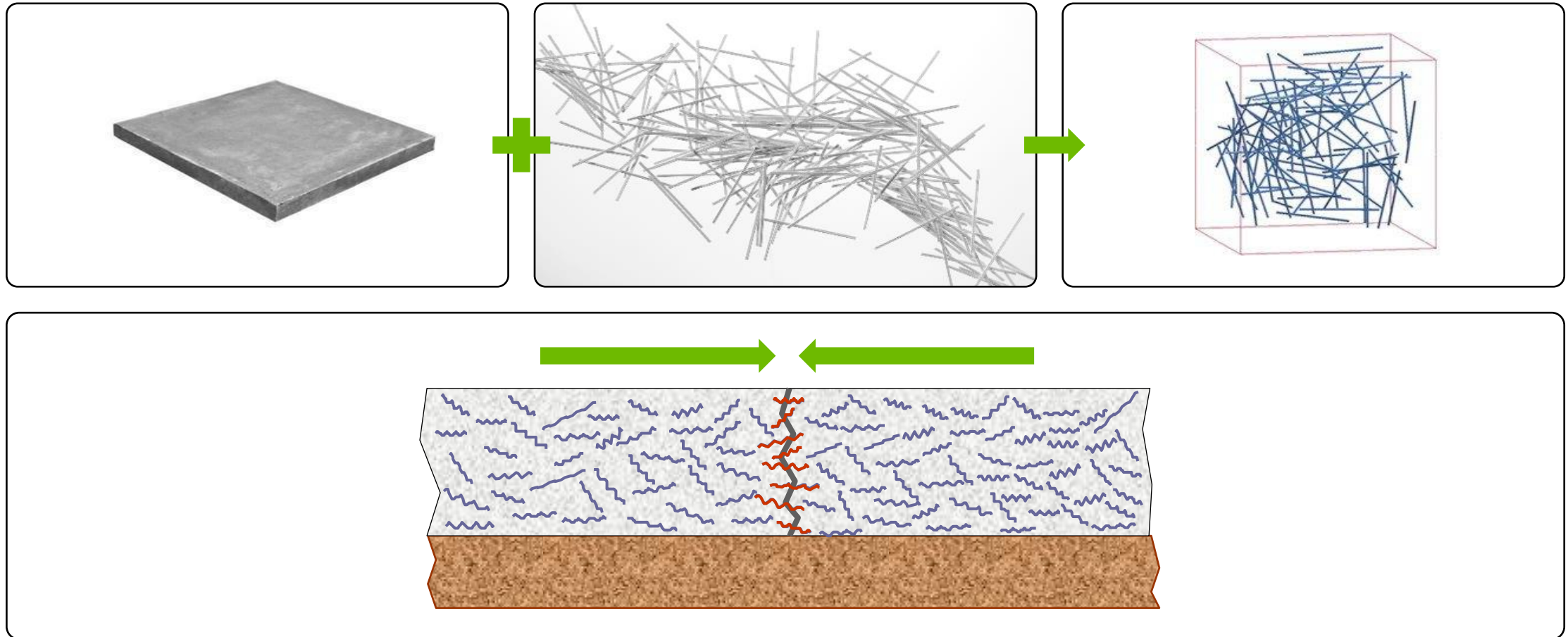
05

Exploring the Benefits of Using Adfil® Strux Fibers



Structural Reinforcement & Durability with Adfil® Strux

By adding macro fibers in your concrete, you create a 3D system of reinforcement



Introducing NEW Adfil® Strux 3040 & 3032



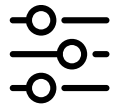
High Strength

Engineered for superior post-crack control and residual strength



Durability

Improves toughness, impact resistance, and fatigue performance



Even Distribution

Uniformly dispersed throughout the concrete matrix for consistent reinforcement



Easy to Use

Finisher-friendly, safe to handle, and simple to batch and place



Introducing NEW Adfil®Strux 3040 & 3032



2.9X more per pallet than traditional Adfil®Strux 90/40

- ✓ Flat packed, fibers oriented all the same way (no balling)
- ✓ Embossing pattern helps grip better
- ✓ Less waste, no boxes
- ✓ Lower CO₂ footprint vs. steel

Adfil®Strux 3040 & 3032 are high-strength synthetic macro fibers designed to enhance concrete performance from the inside out.

Engineered for post-crack control, they improve toughness, durability, and residual strength making them a reliable alternative to steel fibers, welded wire mesh, and light rebar.

From bridge decks to tunnel linings, our fibers help concrete resist cracking and stay stronger for longer.

Feature	Adfil®Strux 3040	Adfil®Strux 90/40
Dosage Range*	3.0 – 8.0 lb./yd ³	3.0 – 8.0 lb./yd ³
Treated yd ³ Per Pallet	208 yd ³	72 yd ³
A/E Adjustment	N/A	N/A
Applications	SOG, Elevated Composite Deck, Underground, Dry Cast Pipe, Precast Structural Panels	SOG, Elevated Composite Deck, Underground

06

Next steps and Questions

Four Steps You Can Take Today

1

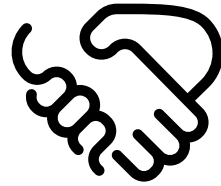


Download the Adfil® Strux App

Converts light steel reinforcement & WWM to macro fiber.

Download from Google play and Apple store as Adfil Strux.

2



Connect with our ESG team

Our Engineering Services Team can support your project ambitions whether you're looking for speed, efficiency, safety, CO₂ reduction or all of the above, let us help you on your next project.

Contact
fibersupport@saint-gobain.com

3



Sign up today for online training

Self-paced training for you and your team to take your projects to the next level.

To sign up contact
fibersupport@saint-gobain.com

4



Scan for more fiber info

Access our full fiber portfolio and understand the various applications and benefits for our range of macro and micro synthetic fibers.



Thank you!

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