

BarChip Inc.

The Synthetic Fibre Experts

BarChip is the world's leading developer of high-performance macro synthetic fibre reinforcement for concrete and shotcrete. For more than two decades BarChip has supplied trusted reinforcement solutions to clients all over the world. Today, BarChip is established as the fibre of choice for major infrastructure projects, reinforcing more than 450 tunnels, railway track slab and other infrastructure projects.

BarChip was created in the 1990's when Japan's leading plastic extrusion company, Hagihara Industries, recognising the benefits of structural synthetic fibres as concrete reinforcement. BarChip was originally released to the Australian mining industry and the quality of the product was immediately evident. Within a few years most of the industry had transferred to macro synthetic fibre solutions and BarChip was being used by BHP, Rio Tinto, Xstrata, Newcrest and more. The widespread and rapid adoption was aided by BarChip's underlying commitment to research and development, which showed the benefits of macro synthetic fibre reinforced concrete.

- Corrosion free
- Reduced labour costs
- Increased performance (toughness)
- Improved safety
- Safer and lighter to handle than steel
- Reduced carbon footprint
- Reduced cycle times
- Reduced maintenance on equipment

Building on this success BarChip entered new markets, designing fibres for a variety of concrete applications and expanding from Japan and Australia to North and South America, Europe and Central Asia. Today, BarChip is distributing to more than 30 countries through our global network of industry experts. BarChip's underlying commitment to research and development is still a core fabric of the company's DNA. This research has contributed to macro synthetic fibre being recognized by numerous national and international standards and guidelines, such as ISO, ASTM, Eurocodes, ACI, ITATech and others.

BarChip is more than just a fibre supplier. BarChip believes that long term business relationships can only be sustained by a commitment to providing high quality products and services and by adding long term value to their customer's business.

When you work with BarChip, you can expect expert shotcrete and concrete advice, expert fibre reinforcement advice and when necessary engineered and finite element analysis designs. By providing this expertise BarChip can give confidence to everyone who uses their products, because when performance matters, the only choice is BarChip macro synthetic fibre.



Bekaert's ambition is to be the leading partner for shaping the way we live and move, and to always do this in a way that is safe, smart, and sustainable. As a global market and technology leader in the material science of steel wire transformation and coating technologies, Bekaert (bekaert.com) also applies our expertise beyond steel to create new solutions using innovative materials and services. Our expanded markets include new mobility, low-carbon construction, and green energy. Founded in 1880, with its headquarters in Belgium, Bekaert (Euronext Brussels, BEKB) is a global company whose 27,000 employees worldwide together generated almost €7 billion in combined revenue in 2022.

Introducing Dramix® over 50 years ago, Bekaert is considered a pioneer of steel fibers and a leader in innovation for concrete reinforcement. Our Dramix® steel fibers are adapted to specific technical requirements appropriate for SOG, tunnel linings, shotcrete, elevated slabs, watertight structures, UHPC applications and more. Depending on the application, we can offer a unique fiber and unique solutions that satisfy technical and performance requirements with reduced cost and construction time while simultaneously offering greater sustainability than traditional solutions.

Having been successfully applied in thousands of projects and millions of square feet around the world, Dramix® steel fibers have proven themselves to be an extremely durable reinforcement solution for overground and underground projects. The Dramix® steel fiber concrete reinforcement series consists of three fiber types featuring different hooked ends, elongation, and tensile strength.

Dramix® 3D is a cost-efficient fiber for reliable non-structural use, such as temporary linings and lightly trafficked floors. It excels in delivering economical yet dependable reinforcement. It is the ideal solution when high serviceability is not the primary requirement.

Dramix® 4D provides optimal crack control to concrete structures with high serviceability requirements, ideal for tunnel segmental lining, permanent sprayed concrete linings, distribution center and warehouse slabs, heavy duty outdoor pavements, liquid tight and coated floors.

Dramix® 5D is a true replacement for bonded reinforcement. It is the perfect solution for highly-loaded slabs on grade, slabs on piles, elevated slabs, mat foundations, highly-trafficked floors, structural precast elements and more.



For over a century, Euclid Chemical has been a leading manufacturer of specialty materials for concrete and masonry construction, known for industry-leading technical and customer support. Euclid Chemical provides innovative concrete admixtures, synthetic micro and macro fibers and steel fibers for concrete applications under the PSI Fiberstrand, TUF-STRAND, and PSI Steel Fibers trade names, as well as concrete repair materials, grouts, protective coatings, concrete flooring products, and more. Our support services include customer-focused research and development, continuing education seminars, and consultation services for contractors, architects, engineers, and owners. Euclid Chemical is a trusted partner for success in the challenging concrete construction market.

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MASTER® » BUILDERS SOLUTIONS

Master Builders Solutions creates technologies for the construction industry inspiring people to build better. We are active in ~40 countries and operate 35 production sites with over 1,600 employees. We develop, produce, and market high-quality chemical admixtures as well as adjacent core technologies to master the challenges of today and support a decarbonized future. Our people are pivotal and pair leading technologies and a strong brand heritage to surpass our customers' expectations and drive continuous value creation.

Master Builders Solutions (MBS) is the global brand of advanced chemical solutions offering products for new concrete construction and underground construction markets. The brand is built on more than 100 years of experience in the construction industry with a comprehensive portfolio encompassing concrete admixtures, fiber reinforcement for concrete, and chemical solutions for underground construction. The company's in-depth knowledge of concrete design and local building needs leads to the development of innovations that drives sustainable construction.

Utilizing the synergy between shrinkage-reducing technologies and fiber reinforcement, the MB Slab System was developed and offers a significant improvement over traditional slab construction. Combined with proper industry practices, the MB Slab System allows joints to be spaced significantly further apart, or in some cases, eliminated altogether. This innovative system provides many benefits for producers, contractors, architects, and building owners, which you can read more about here <https://www.mbslab.com/#benefits>.

MBS also offers other digital products (i.e. MasterAtlas), tools (i.e. Concrete Now!), and services that evaluate and compare the sustainability of products to help construction professionals make informed decisions and be successful leaders within the industry.

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ArcelorMittal Fibres, an ArcelorMittal Wire Solutions business, is part of the ArcelorMittal Group. At ArcelorMittal, our goal is to help build a better world with smarter steels. Steels made using innovative processes which are more efficient, use less energy, and emit significantly less carbon. Steels that are cleaner, stronger, and reusable.

For 35 years, ArcelorMittal Fibres has been a major driving force in the transformation of the reinforced concrete industry and the structures it creates. In partnership with our customers, we are dedicated to creating steel reinforced concrete solutions that enable our contracting and design customers to be more ambitious and build more quickly, safely, sustainably, and profitably.

ArcelorMittal's vertically integrated business model provides us with complete control over the quality of our raw materials and in our production methods ensuring the highest standards of steel fibre production. In conjunction with our world class technical expertise, we can deliver unparalleled quality and value. From the early planning stages through to project completion, ArcelorMittal Fibres provides the expertise and support your project requires. We provide expertise worldwide on:

- setting up your project specification
- the most appropriate fibre type to comply with the specification
- optimum dosage rates to guarantee performance
- concrete mix design optimisation
- the supervision of performance tests
- on-site support and advice on dosing and mixing
- the installation of dosing equipment
- design and calculation to justify the use of SFRC.

ArcelorMittal steel fibres are manufactured at our plants in Luxembourg, UK, Poland, Morocco and Bosnia and Herzegovina using the highest quality, fully traceable, drawn steel wire. The unique shape and precision dimensions of our fibres, together with their high tensile strength, deliver increased reinforcement performance with lower dosages. As the world's leading steel company, we have a significant responsibility to innovate, implement and navigate a successful pathway towards a cleaner steelmaking industry. Our journey towards becoming carbon neutral by 2050, having aligned with the Paris climate goals and the European Green Deal by committing to reduce European CO2 emissions by 35% by 2030 and be carbon neutral by 2050, is well underway.

Our XCarb® recycled and renewably produced steel fibres are made from high levels of recycled steel using 100% renewable electricity in an Electric Arc Furnace. By using high levels of scrap steel and renewable energy, XCarb® recycled and renewably produced fibres have an extremely low CO2 footprint that can be as low as approximately 365kg of CO2 per tonne of finished steel when the metallics are 100% scrap. ArcelorMittal Fibres aim for excellence in everything we do. We have a track record of performance, built on the quality of our people, our steel fibre technology and our aim is to ensure success for every customer in every project.

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Fiber Reinforced Concrete Association

The Fiber Reinforced Concrete Association (FRCA) is an organization representative of the concrete industry striving to be the pre-eminent technical and marketing resource of Fiber Reinforced Concrete for the Construction and Civil/Structural Engineering community. Our membership is made up of manufacturers and marketers of concrete reinforcing fibers, which are widely accepted and used by the manufactured concrete products industry. The FRCA is based at Middle Tennessee State University and is a proud supporter of the Concrete Industry Management (CIM) Program

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GCTS Testing Systems: Leading the Way in Advanced Material Testing

Originating from Tempe, AZ, GCTS Testing Systems stands as a beacon of innovation in the realm of advanced material testing. With a legacy spanning over a quarter-century, GCTS has consistently pushed the boundaries of engineering excellence. Their commitment to precision and quality is evident in every product they design, tailored specifically for the unique needs of civil engineers. This dedication has propelled them to global prominence, with their state-of-the-art systems being utilized in over 70 countries. Beyond their products, GCTS's hallmark is their unwavering customer support, ensuring that every user, from installation to daily operation, experiences the pinnacle of efficiency and reliability.

The eFRM-90: A Game-Changer in Fiber Reinforced Concrete Testing

As GCTS continues its tradition of innovation, the spotlight at the Fiber Reinforced Concrete conference will be on their latest offering: the eFRM-90. This state-of-the-art electro-mechanical loading frame is more than just a piece of equipment; it's a revolution in Fiber Reinforced Concrete (FRC) testing. Here's a deep dive into its standout features:

- **Precision-Controlled Mechanism:** The eFRM-90 boasts a closed-loop control system, ensuring ultra-precise measurements, be it net deformation or crack mouth opening. This level of accuracy is pivotal for in-depth FRC analysis.
- **Versatility in Testing:** With the eFRM-90, researchers can effortlessly switch feedback controls mid-test, accommodating a wide array of testing scenarios. Whether it's Load, displacement, or CMOD, the system adapts seamlessly.
- **Economical without Compromise:** The eFRM-90 is a testament to GCTS's commitment to providing top-tier performance without the hefty price tag. It negates the need for expensive setups, making it a cost-effective gem for commercial labs.
- **Comprehensive Test Suite:** Beyond standard tests like EN 14651 and ASTM C1609/C1609M-19, the eFRM-90 comes equipped with a diverse library of Apps. These cater to various ASTM and EN standards, making it a holistic solution for FRC testing.
- **Innovative Design Features:** The eFRM-90 shines in its ability to control displacement for brittle materials, its prowess in flexural and tension testing, and its customizable procedures. These features, combined with its capability to handle complex load or deformation paths, position it as an invaluable asset for studying the nuanced behavior of FRC.

By launching the eFRM-90 at the conference, GCTS is not just introducing a product; they're ushering in a new era in FRC testing, promising researchers a tool that's unmatched in accuracy, adaptability, and value.

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