

METAL FIBER COMPOSITE REINFORCEMENT

Increase the performance
of your composites

Benefits

- 1 High energy absorption
- 2 Enhanced mechanical performance
- 3 Excellent shielding properties

Bekaert stainless steel fibers are thin metal fibers that have been optimized to add high stiffness and high strain-to-failure to structural polymers. The fibers are available in different alloys and with diameters ranging from 1.5 to 80 μm .

The fibers have been designed for easy integration into the composite matrix. As a result, only a small amount of fibers is required to provide optimal stiffness and ductility.



Why choose metal fiber to reinforce your composites?

When metal fibers are added to a composite, the material gains important characteristics.

- **Less brittle**
Steel fiber reinforced composites have a significant higher elongation than glass or carbon fiber reinforced composites. As a result, they are much less brittle and less likely to splinter upon impact.
- **Higher impact resistance**
Steel fiber reinforced composites have a high energy absorption capability and show progressive buckling and folding behavior. As a result the composite is able to maintain its integrity upon impact, limiting damage to the structure.

Why choose Bekaert?

Experience

Bekaert is the pioneer in designing, developing and producing metal fiber products for a wide range of applications. Our experience of over 40 years has given us the flexibility and technical know-how to provide you with a solution that perfectly matches your quality and performance requirements.

Strength through diversity

From textile and automotive applications to plastics and filter media, Bekaert develops and markets innovative metal fiber products and solutions with high added value for a wide range of applications and industries.

In-house R&D

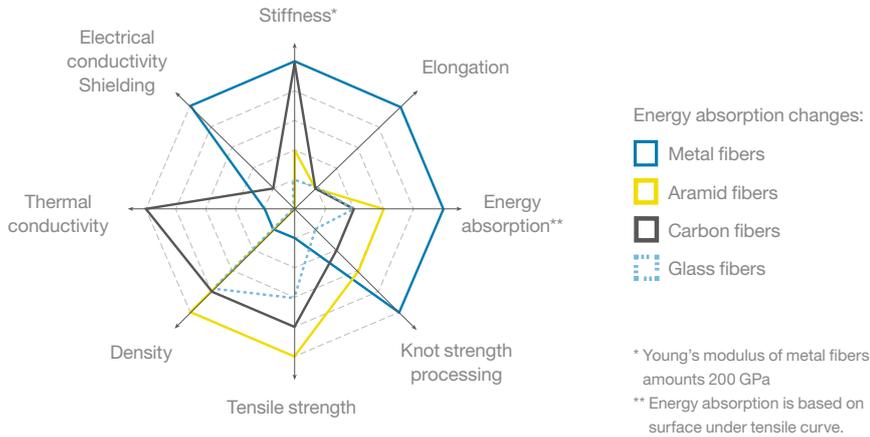
To keep up with industries' evolving needs, we are strongly committed to innovation. Together with customers, independent research partners and in-house research facilities we are constantly creating new solution.

- **Increased conductivity and shielding properties**

Adding steel fibers allows you to give your composite functionalities like conductivity, to protect against Electrostatic Discharges (ESD) and/or to avoid Electromagnetic Interference (EMI).

- **Easy processing**

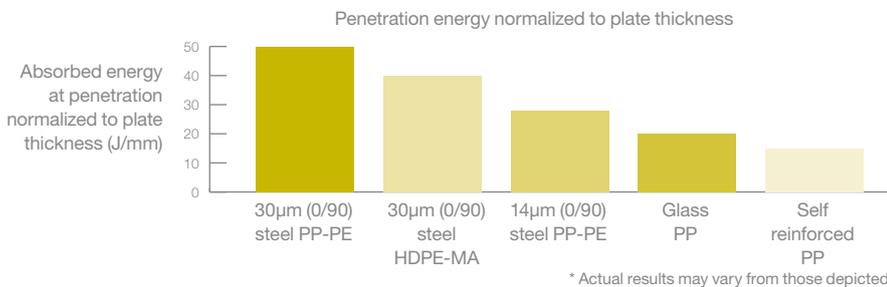
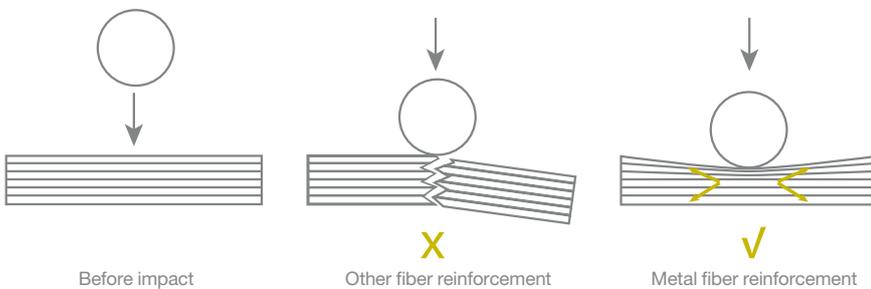
Steel fibers have much better relative knot strength compared to aramid, carbon and glass fibers. As a result steel fibers increase the tolerance of the composite against damage and local deformation during processing.



Why choose Bekaert metal fiber reinforcement?

- **Improve the strength and impact resistance of your composites**

Using Bekaert metal fiber reinforcement provides better impact resistance compared to any other fiber reinforced composite.

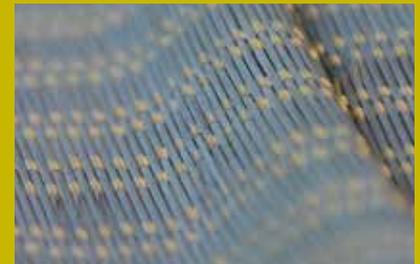


TAILOR-MADE SOLUTIONS:

Whatever your process, prepreg, RTM or compression molding, Bekaert has the right reinforcement solution for you. We offer different types of steel fibers, as well as different textile structures to create the perfect energy absorption capability for your composite.



Bundles



Fabrics or textiles



Grains

Bekaert metal fiber products can also be combined with other fibers such as carbon, glass, aramid and other reinforcement fiber to create a hybrid composite.

Contact us

More
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