



Coating Tomorrow's Innovations

Aramid Fibers

Trelleborg offers a wide variety of substrates, providing a myriad of possibilities to expertly pair material properties to customers' specific applications needs. Our substrates can be knitted, woven or non-woven depending on the specific performance attributes required for a given application.



Aramid fibers are a class of heat-resistant and robust synthetic fibers. They are widely used in defense and aerospace applications like tires and body armor.

There are several well-known aramid fiber brands, including:

- Kevlar®: Manufactured by DuPont™, it is commonly known for its use in stab and bullet-proof vests.
- Twaron®: Manufactured by Teijin Aramid, uses include protective clothing, helmets, sails, brake pads, and turbo hoses.
- Nomex®: Again, produced by DuPont™, these fibers are most commonly associated with Nomex® hoods used by firefighters, race car drivers, and defense personnel to protect from harsh temperatures.

Properties	Value
Tensile Strength (MPa)	2500
Elongation at Break (%)	4
Specific Gravity	1.44

Substrate/Fiber Characteristics

- High strength-to-weight, high tenacity, and high modulus
- Low elongation and creep
- Good abrasion resistance
- No melting point (degradation) and low flammability
- Nonconductive
- Resistant to organic solvents, sensitive to acids, salts, and UV

Common Substrate/Fiber Uses

Flame-resistant clothing, protective vests and helmets, composites, asbestos replacement, hot air filtration fabrics, tire and mechanical rubber goods reinforcement, ropes and cables, sailcloth, sporting goods



At Trelleborg, our eyes are on tomorrow as our in-house expert technical teams work in partnership with an increasing range of customers to bring industry-changing ideas to actualization with coated materials- whether it's your concept or ours.
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