



Applications

Basfiber® products are ideally suited for applications requiring mechanical strength, resistance to high temperature, durability, chemical resistance and environmental friendliness especially when combination of such requirements is needed.

Due to its outstanding properties and affordable price, Basfiber® successfully replaces traditional materials in automotive industry for production of:

- **Headliners**
- **CNG cylinders**
- **Break pads and clutch plates**
- **Thermo insulation for exhausting systems**
- **Muffler's filler**
- **Interior and exterior parts**
- **Thermoplastic parts**



Basfiber® advantages

Compared to regular E-glass, Basfiber® shows:

- 15-20% higher tensile strength and modulus,
- Better chemical resistance,
- Extended operating temperature range,
- Excellent recyclability

Green product

National Directives on end-of life vehicles strongly recommend to car manufacturers to use end-of-life management principles during car development and production.

To fulfill such recommendations, car manufactures have to look for new "green" materials which could help them to meet environmental requirements and to ensure maximum recycling when the vehicles reach end-of-life stage.

Many cars and auto parts manufacturers have already chosen Basfiber® as such "green product" due to its advantages:

1. Raw material for Basfiber® production is basalt which is inert natural rock
2. No chemical additives are used during Basfiber® production
3. Basfiber® has no toxic reaction with air, water or other chemicals that may be hazardous for people or pollute the environment
4. Basfiber® is not a carcinogens product according to NTP, IARC or OSHA
5. Excellent recyclability during the incineration process



Car's Headliners

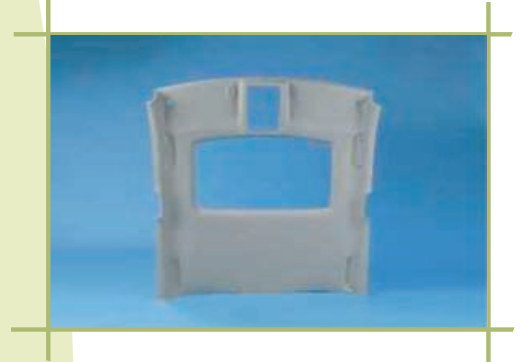
Besides excellent mechanical and sound/thermo insulation properties, the key competitive advantage of Basfiber® in this application is its outstanding recyclability which enables to car producers to effectively meet strict end-of life requirements.

Production technologies:

1. A low pressure, thermo formable thermoplastic composite of polypropylene and chopped basalt fiber
2. Paper technology

Typical Basfiber® products for this application:

Wet chopped strands 13 to 16 μm , cut length 1/2"(12.7mm), covered by KV-05/1 sizing (water compatible).



CNG cylinders



Basfiber® is much lighter than steel, has better mechanical properties than E-glass and is more cost-effective than carbon fiber. All these advantages, along with excellent recyclability and extended range of working temperatures make Basfiber® extremely promising for production of CNG cylinders.

Production technology: filament winding technology

Typical Basfiber® product for this application:

Assembled basalt roving 13 μm , 1200 or 2400 tex, external unwinding, KV12 sizing (epoxy and phenolic compatible).

	Basfiber®	E-glass
Tensile strength of dry fiber (ASTM D3822), mN/tex	650 - 730	350 - 500
Tensile strength of single filaments (ASTM D2101), MPa	4000 - 4300	3450 - 3800
Tensile modulus of single filaments (ASTM D2101), GPa	84 - 87	72 - 76

Car's brake pads and clutch plates

Basalt chopped strands are used as an alternative to asbestos in production of brake pads and provides the following advantages to final products:

- 2-3 times longer service life
- Extended working temperature range
- Resistance to chemically aggressive conditions
- Eco friendliness

Typical Basfiber® products for this application:

The 3 or 6 mm chopped strands, 13 or 16 μm , KV12 sizing (epoxy or phenolic compatible).



Muffler's filler

Basfiber® advantages compared to traditional materials:

- Much higher operating temperature
- High resistance to thermal cycling
- Greater noise reduction
- Lower moisture absorption
- High chemical resistance

Typical Basfiber® products for this application:

Assembled roving 17 μm , 2400 or 4800 tex, KV-12 sizing (epoxy or phenolic compatible).



Thermo insulation for exhaust system



Basfiber® is used for production of the thermo insulating sleeves, braids, and fabric for car's exhaust system.

The flexible knitted sleeve, when installed on vehicle exhaust pipes, prevents exhaust gases from losing their high temperature as they flow through the exhaust system.

The technology enables more complete conversion of gases and particulates, such as CO₂ and unburned carbon, in the catalytic converter; the result is better engine effectiveness and less environmentally damaging exhaust effluents.

Typical Basfiber® products for this application:

Textured roving for sleeves and braids or high tex twisted yarn (up to 600 tex) for fabric.

	Basfiber®	E-glass
Application temperature, °C	-260 up to +560	-60 up to +460

Interior and exterior parts

Fabrics for interior and exterior parts

Many interior and exterior parts of cars are made of fabrics and Basfiber® is used by some car producers in this application because of its attractive dark-brown color, high mechanical properties, fire-resistance and competitive price.

Thermoplastic parts and components

Today auto manufacturers widely use thermoplastic fiber composites as alternative to metal to reduce vehicles' weight and cost of production. With its outstanding mechanical properties, resistance to high temperature and "green" advantages, Basfiber® also can be successfully used for this application.



Logistics advantages

- English speaking sales and R&D staff
- Packaging labels and shipment documents in English
- Door-to-door delivery all around the world
- Worldwide distribution network
- Regional warehouses in Europe and USA



Ways of delivery

- 20' container, 11 pallets 120x80 cm (max net weight is 10 000 kg)
- 40' container, 23 pallets 120x80 cm (max net weight is 18 500 kg)
- A truck, up to 31 pallets (max net weight is 18 500 kg)

Distribution Network

USA

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