



GUARDIANS OF SAFETY, INNOVATORS OF FABRIC

Ultra-High-Temperature Non-Combustible Material Solutions

Taizhou BlackFire Technology Co., Ltd.

www.black-fire.net · Founded 2021 · Zhejiang, China

Materials That Safeguard Lives

Founded in 2021, Taizhou BlackFire Technology Co., Ltd. specializes in the R&D and industrialization of ultra-high-temperature carbonlene non-combustible materials. Our fabrics withstand up to 1,800°C — zero smoldering, zero afterflame, zero damage after one minute of flame exposure — breaking long-standing foreign technology monopolies.

We serve **national defense, firefighting, construction, shipbuilding, chemical engineering and new energy** — with a complete system covering manufacturing, R&D, marketing and service, plus production bases in Zhejiang and sales centers in Tokyo and Seoul.

1,800°C

Fabric heat resistance

3,200°C

Fiber performance stability

39–43%

Limiting Oxygen Index (LOI)

A0

Flame-retardant grade

Core Advantages

Six pillars behind every product — from raw fiber to finished protection.

High-Temperature Protection

Maintains stable performance up to ultra-high temperatures.

Chemical Resistance

Reliable resistance to acid and alkali corrosion.

Multi-Functional Protection

High-efficiency oil and water repellency, blocking hazardous liquids.

Intelligent Health

Built-in far-infrared heating; free of carcinogens and allergens.

Safety Certification

Compliant with occupational health standards.

Technological Innovation

Full spinnability of non-combustible fibers.

Catalog Contents

Five product lines engineered for extreme heat and hazardous environments.

01

Carbonlene Yarn

Inherently non-combustible yarn in multiple counts & blends.

02

Carbonlene Fabric

Woven & knitted fabrics, LOI 39–43%.

03

Functional Fabric

Aramid / silicone / aluminum-foil composites.

04

Flame Retardant

A0-grade spray-on treatment.

05

Fire Blanket

Ultra-light carbonlene fire blankets.

01 Carbonlene Yarn

Inherently non-combustible yarn spun from our proprietary carbonlene fiber. Available in multiple counts, blends and ply structures for flame-retardant textiles.

Carbonlene Yarn

Click / tap any item — full specs available on request



Flame Retardant Carbonlene Yarn 10/2

- Double-ply
- 11.5 cN/tex
- High strength



Thermal Insulation Carbonlene Yarn 10/1

- Single-ply
- Thermal insulation



High Strength Blended Carbonlene Yarn 20/2

- Double-ply
- High strength



Stable Reliable Carbonlene Yarn 20/1

- Single-ply
- Stable & reliable

Carbonlene Yarn

Click / tap any item — full specs available on request



Non-toxic 50% Aramid + 50% Pre-oxidized 2-ply

Blended 2-ply 50/50 aramid / pre-ox



Supple 20% Aramid + 80% Pre-oxidized 2-ply

Blended 2-ply 20/80 aramid / pre-ox Soft hand



High-quality 20% Aramid + 80% Pre-oxidized 4-ply

Blended 4-ply 20/80 aramid / pre-ox



Fire-resistant Carbonlene Yarn 30/2

Double-ply Fire-resistant

Carbonlene Yarn

Click / tap any item — full specs available on request



Functional Carbonlene Yarn 30/1

Single-ply Functional



Protective Carbonlene Yarn 40/1

Single-ply Fine count



Compact 50% Aramid + 50% Pre-oxidized Single

Blended single 50/50 aramid / pre-ox



Versatile Roving 1.7/1 (twisted)

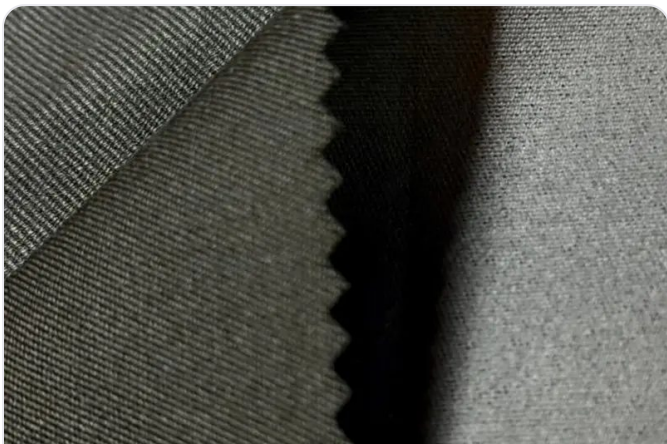
Twisted roving Versatile

02 Carbonlene Fabric

Woven and knitted fabrics with a Limiting Oxygen Index of 39–43%. Long service life, non-toxic, environmentally friendly and cost-effective.

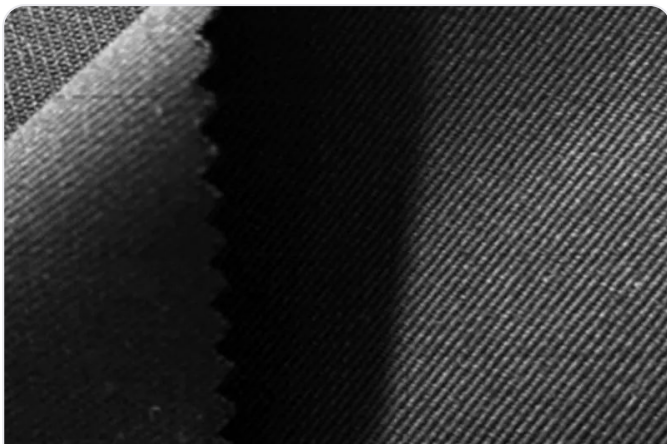
Carbonlene Fabric — General Woven Fabric

LOI 39–43% · Non-toxic & environmentally friendly



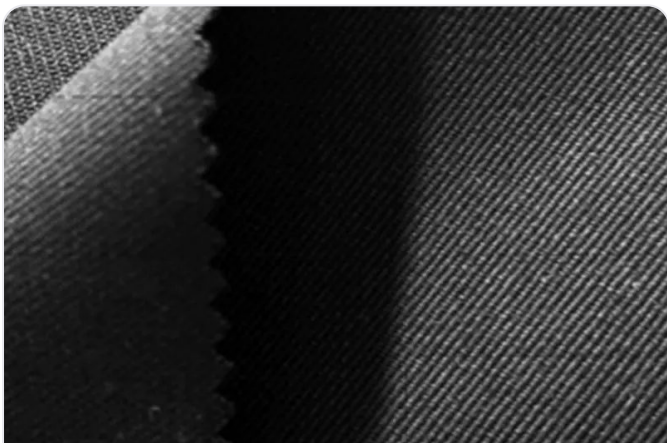
High-quality General Woven Fabric 240 g/m²

Woven 240 g/m²



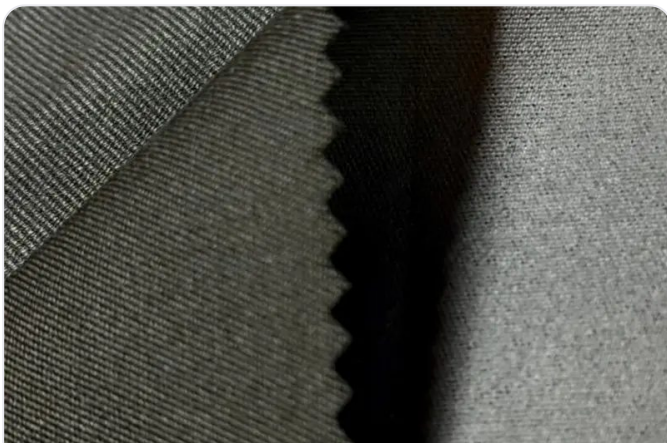
Efficient General Woven Fabric 280 g/m²

Woven 280 g/m²



Comfortable Smooth General Woven Fabric 350 g/m²

Woven 350 g/m² Smooth



Breathable General Woven Fabric 400 g/m²

Woven 400 g/m² Breathable

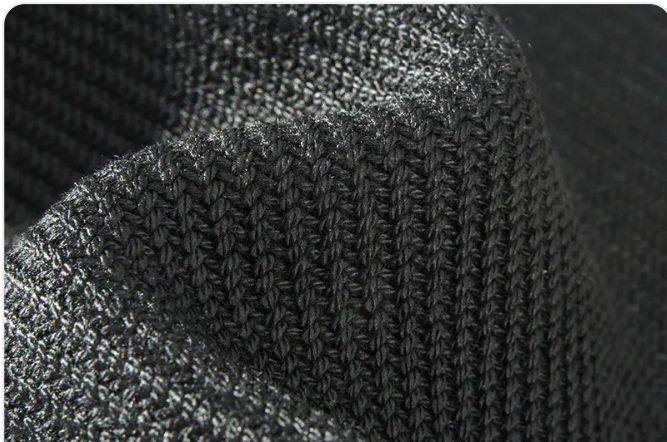
Carbonlene Fabric — General Woven Fabric

LOI 39–43% · Non-toxic & environmentally friendly



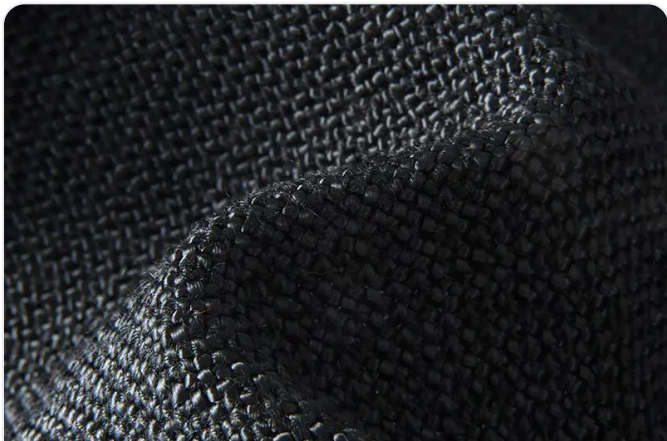
Lightweight General Woven Fabric 480 g/m²

Woven 480 g/m²



Flexible General Woven Fabric 600 g/m²

Woven 600 g/m²



Sturdy General Woven Fabric 700 g/m²

Woven 700 g/m² Heavy-duty

Custom Specifications

OEM & ODM available.
Tell us your requirement — we tailor the material for you.

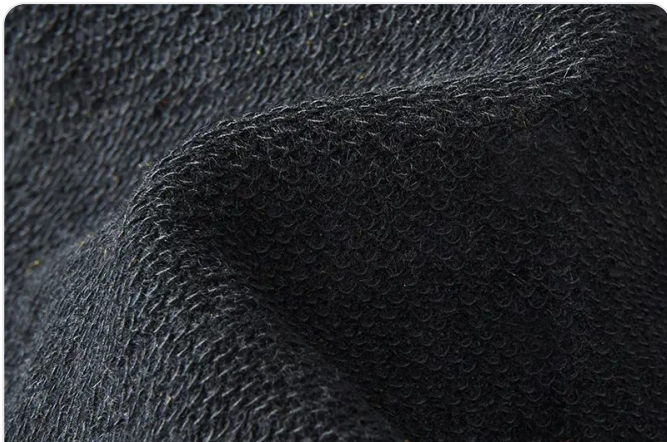
Carbonlene Fabric — General Knitted Fabric

LOI 39–43% · Non-toxic & environmentally friendly



Environmentally-friendly Knitted Fabric 200 g/m²

Knitted 200 g/m²



Non-toxic Knitted Fabric 310 g/m² (20/1)

Knitted 310 g/m² 20/1



Knitted Single-sided Brushed 310 g/m² (30/1)

Knitted 310 g/m² Single brushed 30/1



Knitted Double-sided Brushed 350 g/m² (20/1)

Knitted 350 g/m² Double brushed 20/1

Carbonlene Fabric — General Knitted Fabric

LOI 39–43% · Non-toxic & environmentally friendly



General Knitted Fabric 360 g/m² (20/1)

Knitted 360 g/m² 20/1

Custom Specifications

OEM & ODM available.
Tell us your requirement — we tailor the material for you.

Custom Weights

Available in custom weights & widths.
From 200 to 700 g/m² and beyond.

Full Spec Sheet

LOI 39–43% · A0-grade · Non-toxic.
Request the full technical sheet.

03 Functional Fabric

Composite fabrics combining carbonlene, aramid, silicone and aluminum foil for specialized protection — heat insulation, anti-thermal imaging, waterproofing and more.

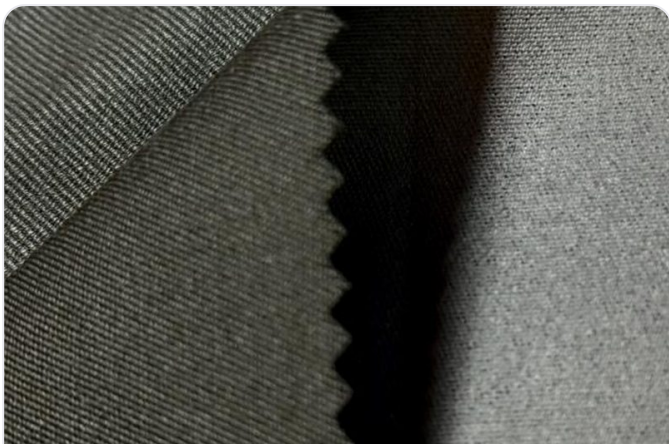
Functional Fabric

Click / tap any item — full specs available on request



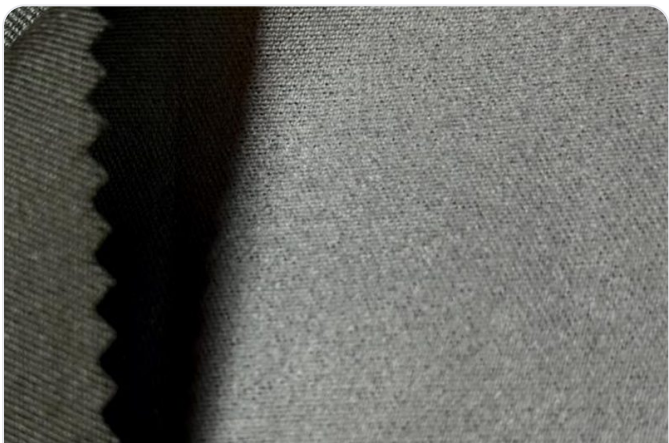
Pure Aluminum-coated Fabric 530 g/m²

- Aluminum-coated
- 530 g/m²
- Heat insulation



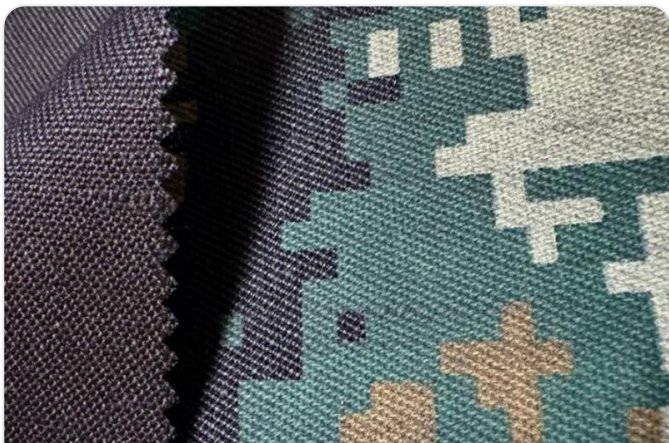
Anti Infrared Imaging Fabric

- Anti-IR imaging
- Concealment



Anti Thermal Imaging Fabric

- Anti-thermal
- Stealth



Camouflage Printed Fabric

- Camouflage print

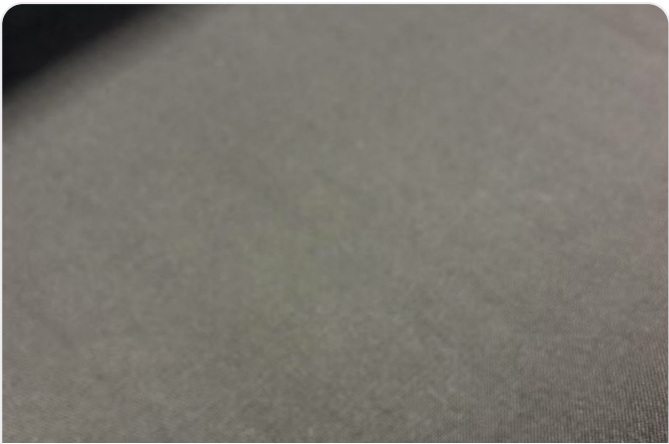
Functional Fabric

Click / tap any item — full specs available on request



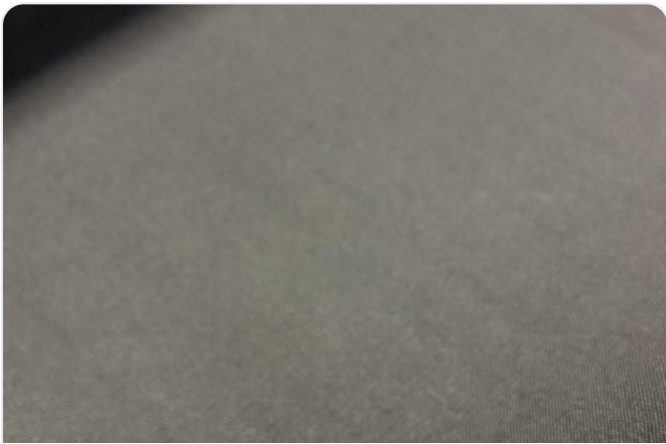
Aramid Mesh Fireproof Fabric

- Aramid mesh
- Breathable



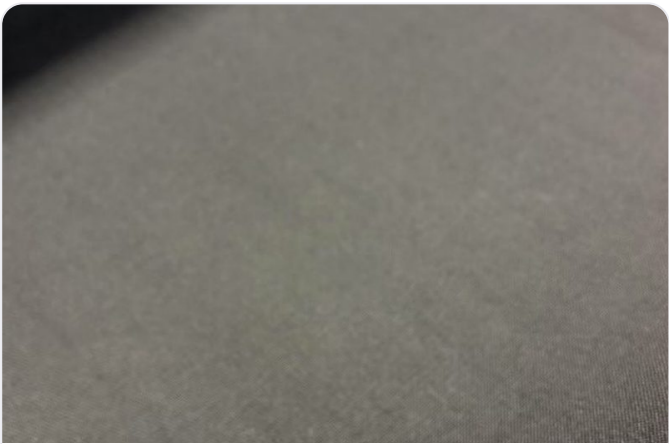
280 Composite Silicone Double-sided FR Fabric

- Silicone
- 280 g/m²
- Double-sided



350 Eco Composite Silicone Double-sided FR Fabric

- Silicone
- 350 g/m²
- Eco-friendly

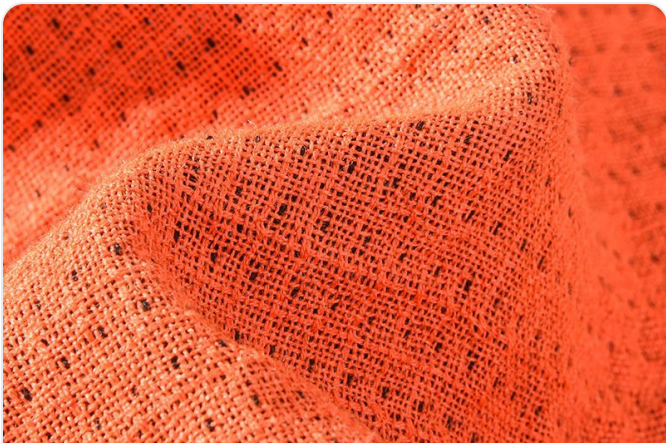


480 Reliable Composite Silicone Double-sided FR Fabric

- Silicone
- 480 g/m²
- Double-sided

Functional Fabric

Click / tap any item — full specs available on request



Orange-Red Two-Layer Fabric

- Two-layer
- High-visibility



Navy Blue Two-Layer Fabric

- Two-layer
- Navy



PTFE Coated Fabric

- PTFE coated
- Chemical resistant



High Thermal Resistance Fabric

- High thermal resistance

04 Flame Retardant

A0-grade, high-efficiency flame retardant treatment in convenient spray form for fabrics, textiles and interior materials.

Flame Retardant

Click / tap any item — full specs available on request



Flame Retardant Spray 100 ml

100 ml A0-grade Spray-on



Large-capacity Flame Retardant Spray 700 ml

700 ml A0-grade Bulk

05 Fire Blanket

Ultra-light carbonlene fire blankets — 30–50% lighter than glass-fiber and aramid alternatives, with A0-grade long-term flame-retardant performance.

Fire Blanket

Click / tap any item — full specs available on request



Automobile Fire Blanket 6 m × 9 m

6 m × 9 m

EV / car fire

30–50% lighter



Small Automobile Fire Blanket

Compact

Portable

Emergency

Where BlackFire Performs

Tailored non-combustible solutions across demanding sectors.

National Defense

Customized protection for your industry

Firefighting

Customized protection for your industry

Construction

Customized protection for your industry

Shipbuilding

Customized protection for your industry

Chemical Industry

Customized protection for your industry

New Energy

Customized protection for your industry

Labor Protection

Customized protection for your industry

Military

Customized protection for your industry

Industrial

Customized protection for your industry

Emergency Rescue

Customized protection for your industry

Contact Us

We are happy to provide consultation on product specifications, delivery timelines and pricing.

black Fire.

Taizhou BlackFire Technology Co., Ltd.

EMAIL

Vance@black-fire.com.cn

PHONE / WHATSAPP

+86-571-86797597

+86-15658877105

ADDRESS

905, Yanxiang Technology Building, Binkang Road,
Binjiang District, Hangzhou, Zhejiang Province,
China

WEBSITE

www.black-fire.net