

Thermal Insulation Textile

IZOLTEX

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Incedo per ignes

Content

Thermal Insulation and Fireproof Fabrics IZOLTEX

Introduction.....	3
General-purpose fabrics.....	4
IZOLTEX-30, IZOLTEX-50, IZOLTEX-70, IZOLTEX-80.....	5
IZOLTEX-90, IZOLTEX-120, IZOLTEX-121.....	6
Fabrics with covering.....	7
Fabrics for smokescreens.....	8
IZOLTEX-50SR, IZOLTEX-70SR, IZOLTEX-130S.....	8
Tapes.....	9
Products based on fabrics.....	10

Introduction

About our company

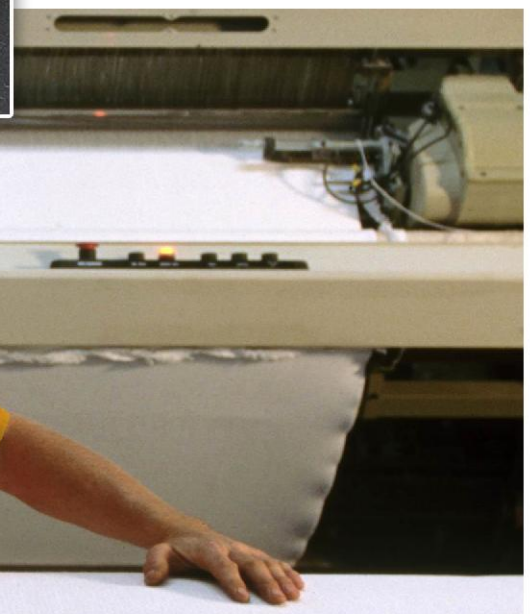
Company IZOLA was founded in 1998. The main business of company is manufacturing asbestos-free heat-insulating and sealing materials.

Heat-insulating and fireproof fabrics IZOLTEX are made from high-temperature threads of fiberglass roving, basalt roving, ceramic yarn, high silica roving and another fiber types. If necessary, fibers are impregnated with different compounds to attain specific features.

Technologies

Thermal conductivity is an important feature of insulating materials, thus the thickness of fabric has great importance. Technologically, it is possible to manufacture fabrics with a thickness from 0.2 to 10 mm and width from 10 mm to 2 m. Different combinations of fibers produce fabrics with different features.

Customers can also order prepared garment of different difficulty.



General-purpose fabrics

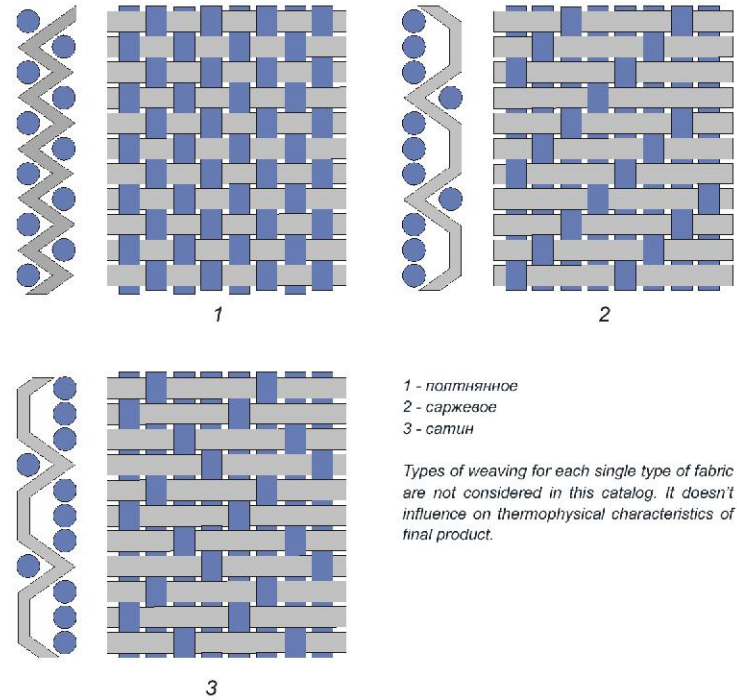
General-purpose high-temperature fabrics

These fabrics are made from homogeneous threads, without any additional impregnations, reinforcements and coverings by traditional weaving methods. Considering application area of heat-insulating materials, IZOLA offers a wide range of geometric options of the fabrics: thickness from minimum 1 mm to 10 mm and width from 10 mm to 2000 mm.

Advantages of high-temperature fabrics:

- high application temperature (up to +1250 °C)
- resistance to heatstroke
- low thermal conductivity coefficient
- high strength
- good dielectric features (except IZOLTEX-120)
- wide variety of width and thickness
- asbestos-free
- durable
- easy to mount and demount (doesn't burn)

Types of weaving



General-purpose fabrics

IZOLTEX-30

Description

IZOLTEX-30 consists of aramid fibers.

Characteristics

Working temperature: long-term/short-term, °C.....	+300 / +500
Thermal conduction (+20 °C), W/mK.....	0,20
Burning weight loss, %.....	-
Density, g/m ²	from 100 to 3000
Thickness, mm.....	from 0,4 to 10
Color.....	yellow, orange



IZOLTEX-50

Description

IZOLTEX-50 made from fiberglass type "E".

Characteristics

Working temperature: long-term/short-term, °C.....	+560 / +700
Thermal conduction (+20 °C), W/mK.....	0,22
Burning weight loss, %.....	1,5
Density, g/m ²	from 100 to 5000
Thickness, mm.....	from 0,2 to 10
Color.....	white



IZOLTEX-70

Description

IZOLTEX-70 consists of basalt fiber.

Characteristics

Working temperature: long-term/short-term, °C.....	+700 / +900
Thermal conduction (+20 °C), W/mK.....	0,24
Burning weight loss, %.....	2
Density, g/m ²	from 100 to 5000
Thickness, mm.....	from 0,2 to 10
Color.....	dark-green



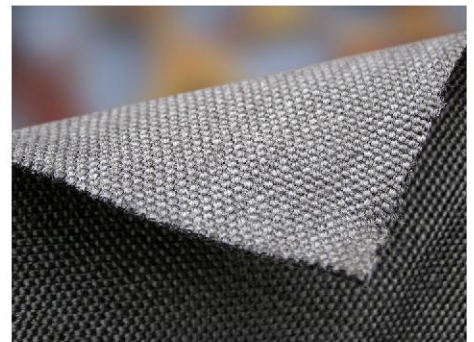
IZOLTEX-80

Description

IZOLTEX-80 produced from carbon fiber.

Characteristics

Working temperature: long-term/short-term, °C.....	+600 / +900
Thermal conduction (+20 °C), W/mK.....	0,24
Burning weight loss, %.....	2
Density, g/m ²	from 100 to 800
Thickness, mm.....	from 0,3 to 2
Color.....	black



General-purpose fabrics

IZOLTEX-90

Description

IZOLTEX-90 made from ceramic yarn, reinforced with glass rowing.

Characteristics

Working temperature: long-term/short-term, °C.....	+800 / +1100
Thermal conduction (+20 °C), W/mK.....	0,20
Burning weight loss, %.....	15
Density, g/m ²	from 1000 to 5000
Thickness, mm.....	from 1 to 10
Color.....	white



IZOLTEX-120

Description

IZOLTEX-120 consists of ceramic yarn, reinforced with metal wire.

Characteristics

Working temperature: long-term/short-term, °C.....	+1100 / +1250
Thermal conduction (+20 °C), W/mK.....	0,26
Burning weight loss, %.....	18
Density, g/m ²	from 1000 to 5000
Thickness, mm.....	from 1 to 10
Color.....	white



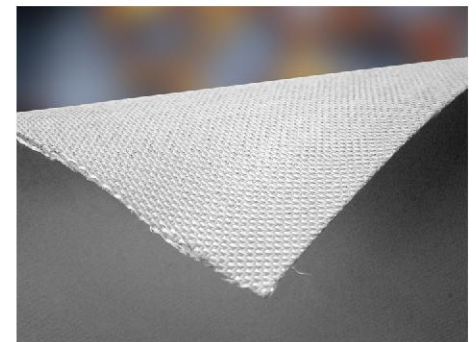
IZOLTEX-121

Description

IZOLTEX-121 weaved of high silica yarn consists minimum 96% of SiO₂.

Characteristics

Working temperature: long-term/short-term, °C.....	+1200 / +1350
Thermal conduction (+20 °C), W/mK.....	0,22
Burning weight loss, %.....	1
Density, g/m ²	from 140 to 3000
Thickness, mm.....	from 0,3 to 5
Color.....	white



Fabrics with covering

Fabrics with vermiculite impregnation

Vermiculite impregnation provides durability of fabric at maximum temperature. It also attaches the feature of "nonwettability" from welding apparatus spray and welding sparks to fabric.

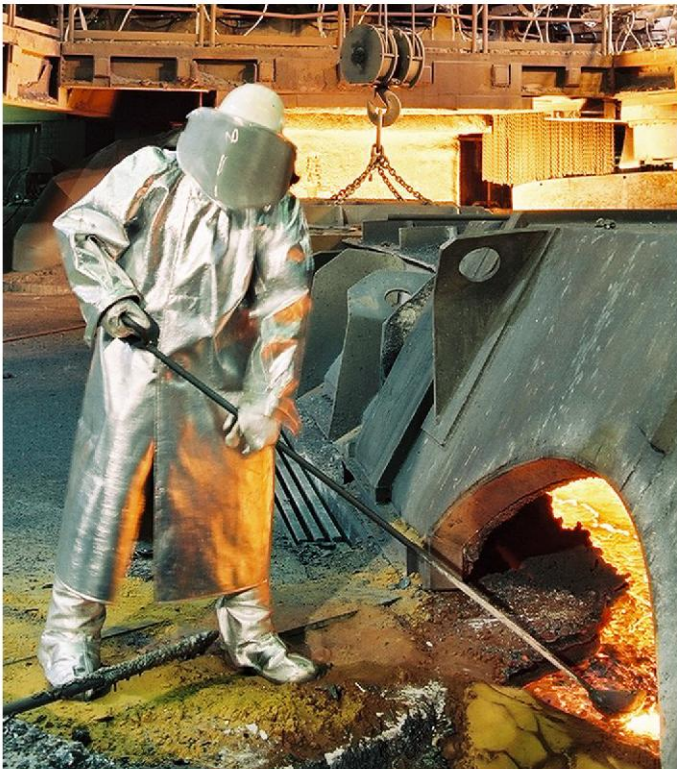
Letter "V" represents fabrics with vermiculate impregnation. For example IZOLTEX-50V (glass fabric with vermiculite impregnation).



Fabrics with reflective foil

Reflective foil increases thermal insulation effectiveness of high-temperature fabrics, using the reflection of radiation source beam energy. If necessary, foil can be applied on both sides.

Presence of foil on fabric is indicated by letter A. For example IZOLTEX-120A.



Fabrics with impermeable coverings

Silicone covering. Protects fabric from abrasion, punctures and soaking. Fabrics with this kind of covering are airtight and waterproof, have good chemical durability and can be used as a cushioning material. For example in compensators. High-temperature silicone can be applied on one or both sides. Its application temperature: continuous +250°C, short-term +900°C.

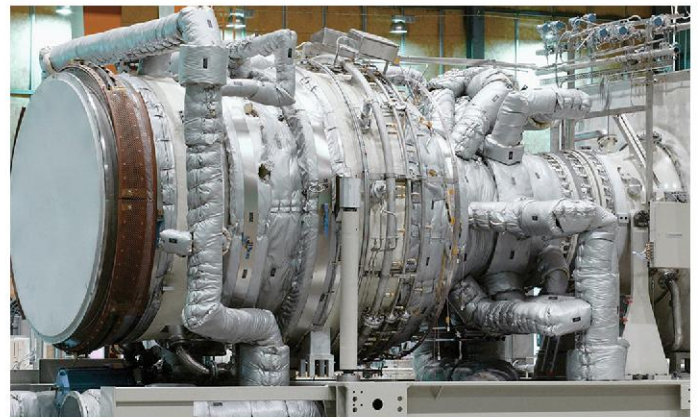
Fabrics with this kind of covering have letter "S" in the designation, for example IZOLTEX-121S.



Polyurethane. Also protects fabric from mechanical damages, doesn't skip the steam. Fabrics with polyurethane are often used as a cushioning material, outer lining of the compensator and safety curtain. They are easy to use, cut and sew.

Application temperature: continuous up to +250°C, short-term +950°C.

Letter "P" indicates fabrics with polyurethane, for example IZOLTEX-50P.



Neoprene. Fabrics with neoprene have good mechanical strength and chemical durability. They are widely used in metallurgy, shipbuilding, in thermal and nuclear energetic, cement industry.

Application temperature: continuous up to +250°C, short-term +950°C.

Fabrics with neoprene are denoted by letter "N". For example IZOLTEX-70N.

Reinforced fabrics

Fabrics for smokescreens

Fabrics for smokescreens are made of heat-resistant fibers and self-extinguishing coverings. Coverings can be applied on the one or both sides. For strength, fabrics are reinforced with thin wire made of heat-resistant stainless steel.

Fabrics with reinforcement have letter "R" in the designation. For example IZOLTEX-50R.



IZOLTEX-50SR

Description

Fabric consists of glass thread of type "E", reinforced wire and covering based on silicone and neoprene.

Characteristics

Working temperature: long-term/short-term, °C.....+260 / +900
 Long-term working temperature of covering, °C.....+260
 Long-term working temperature of fiber, °C.....+550
 Density, g/m².....from 400 to 2000
 Thickness, mm.....from 0,8 to 2
 Color.....white, grey, red

IZOLTEX-70SR

Description

IZOLTEX-70SR made of basalt threads, reinforced wire and covering based on silicon and neoprene.

Characteristics

Working temperature: long-term/short-term, °C.....+260 / +1000
 Long-term working temperature of covering, °C.....+260
 Long-term working temperature of fiber, °C.....+700
 Density, g/m².....from 400 to 2000
 Thickness, mm.....from 0,8 to 2
 Color.....white, grey, red

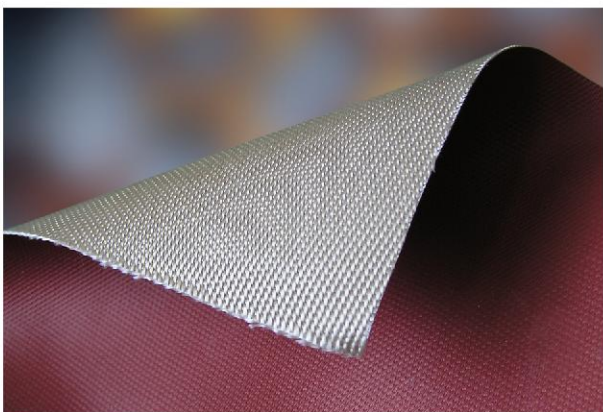
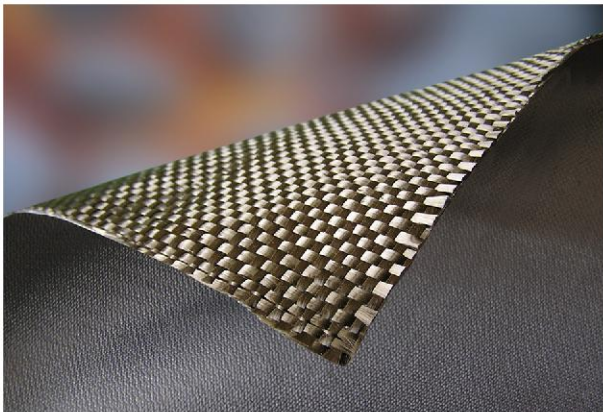
IZOLTEX-130S

Description

The fabric consists of high-temperature threads and covering based on silicone and neoprene.

Characteristics

Working temperature: long-term/short-term, °C.....+260 / +1300
 Long-term working temperature of covering, °C.....+260
 Long-term working temperature of fiber, °C.....+1200
 Density, g/m².....from 400 to 2000
 Thickness, mm.....from 0,8 to 2
 Color.....white, grey, red

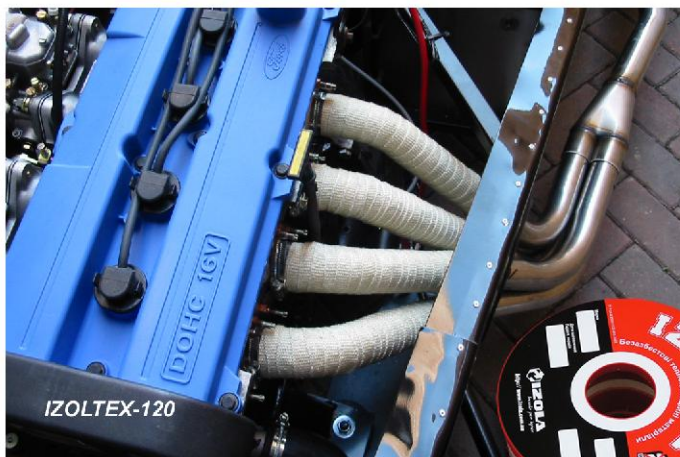


Tapes

Types and compositions of tapes

Heat-insulation and fireproof tapes have the same composition and interlacements as fabrics. They are designed to isolate hot and cold surfaces, packing of fixed connections.

Example of tape designation: IZOLTEX-50-30x2 – tape made of fiberglass with width of 30mm and thickness of 2mm.



Tapes with adhesive layer



Tapes IZOLTEX with adhesive layer are woven tapes, covered with glue layer on the one side, which is protected by thin paper. It's easy to remove before tape installation. This kind of construction eases installation on insulated surfaces, provides dense winding and better impermeability between adjacent layers while reeling lap.

When using tape as a packing, adhesive layer makes it easy to install tape around the flange perimeter.

Example of designation of tape with adhesive layer: IZOLTEX-20K-40x3 – tape made of fiberglass with adhesive layer and width of 40mm, thickness of 3mm.



Products based on fabrics

Company IZOLA offers prepared products based on high-temperature fabrics. They are made to protect staff and equipment from high temperatures.

Working clothes

A wide range of fabrics allows producing any element of coveralls to protect staff from high temperatures.



Insulating and protective covers

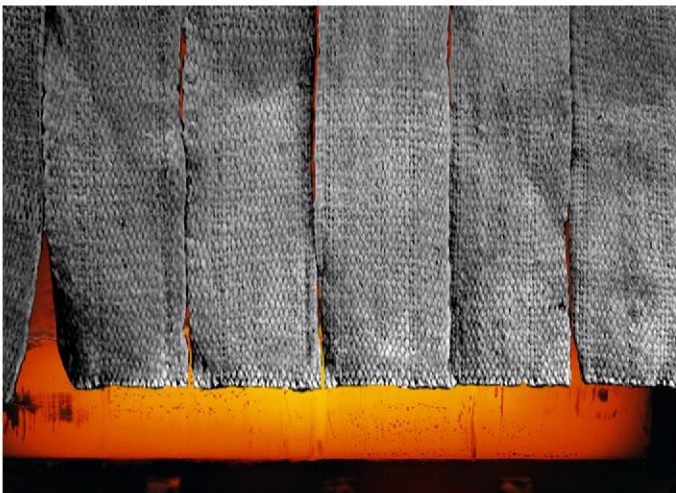
Protective covers prevent from hits of boiling hot particles and drops of metal.



Shades and curtains

Shades and curtains have a wide range of application:

1. As elements of automatic fire prevention system which is for isolating separated sectors of building sites from fire and smoke.
2. Equipment protection from melt splashes and sparks while welding.
3. Isolating of stove passages which cut hot gases leakage and cold air intake.



Insulating covers are used for equipment isolating from heating or heat loss.