



JOINT-STOCK COMPANY  
**POLOTSK-STEKLOVOLOKNO**



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# ABOUT COMPANY

- **1958** YEAR OF FORMATION
- **3700** NUMBER OF EMPLOYEES
- **50 HA** INDUSTRIAL COMPLEX AREA
- **55 COUNTRIES** GEOGRAPHY OF SUPPLIES
- **90%** EXPORT OF PRODUCTS

ONE OF THE WORLD'S LEADING  
MANUFACTURERS OF GLASS FIBER  
AND PRODUCTS ON ITS BASIS





# ABOUT COMPANY

## GLASS TYPES:

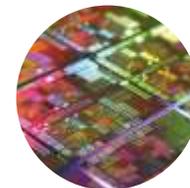
- E-glass
- Types of silica glass:  
(SiO<sub>2</sub>: 95±1% SiO<sub>2</sub>: 99±1%)
- High-modulus VMP glass
- Basalt

## RANGE OF PRODUCTS:

About 900 types of products

## AREAS OF APPLICATION:

Automotive, aircraft, electrical, building industries, Shipbuilding, metallurgy, military-industrial complex, etc.





# FULL CYCLE OF TECHNOLOGICAL PROCESSES



BATCH PREPARATION



GLASS MELTING



FIBER FORMING



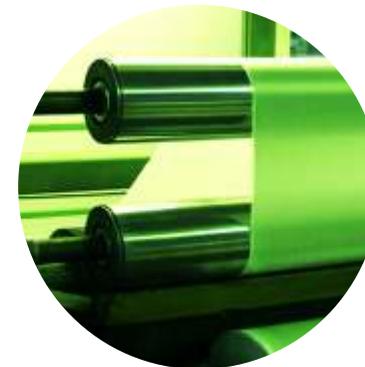
UNWINDING, TWISTING, PLYING



WARPING, SLASHING



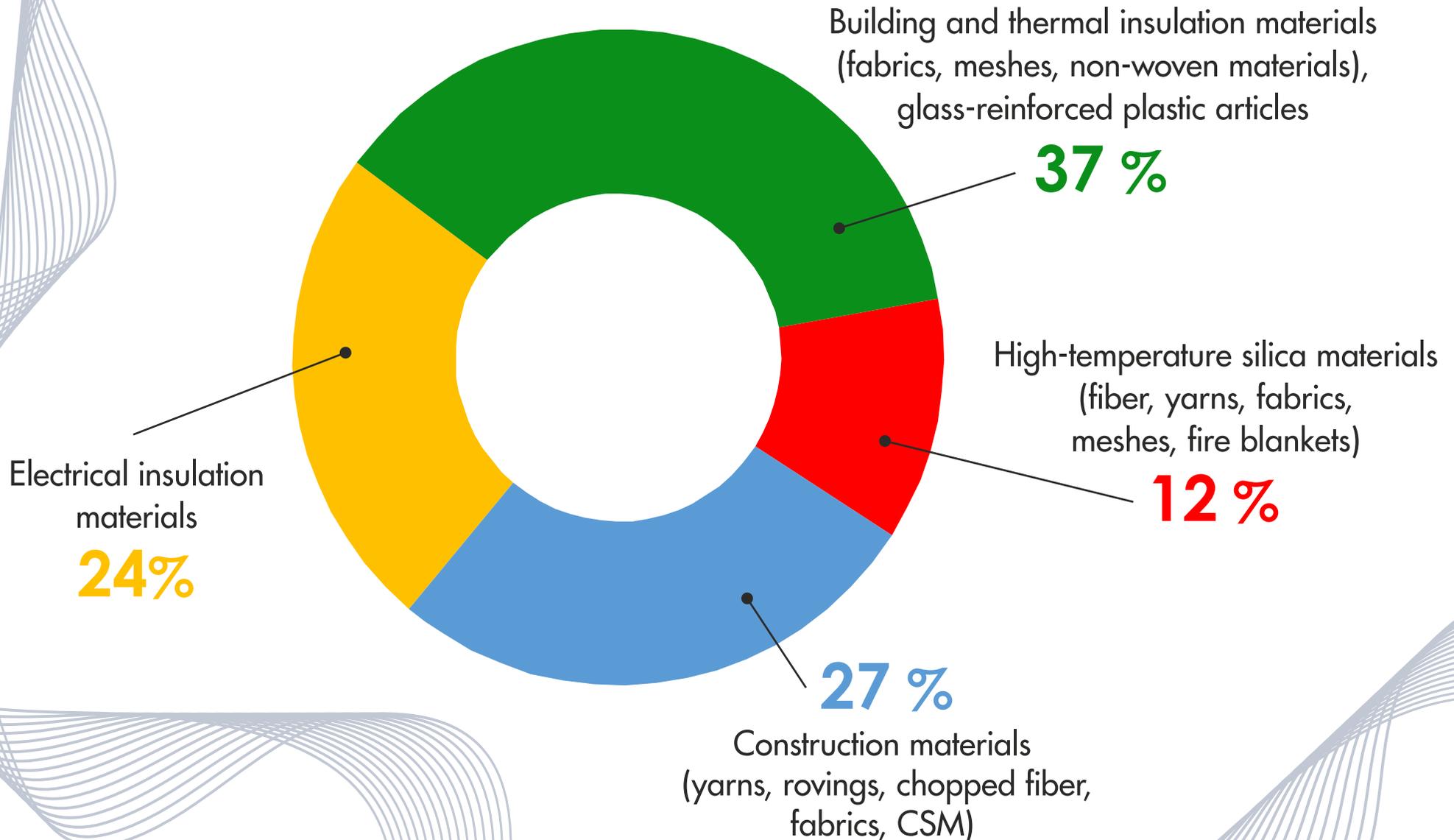
WEAVING



THERMAL AND CHEMICAL TREATMENT



# MAIN TYPES OF PRODUCTS





# HIGH-TEMPERATURE SILICA MATERIALS

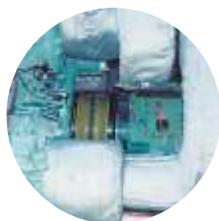
## TYPES OF SILICA GLASS:

- No. 11 with SiO<sub>2</sub> content of 95±1% (operating temperature up to +1100°C)
- Puresil with SiO<sub>2</sub> content of 99±1% (operating temperature up to +1200 °C)

## TYPES OF MATERIALS:

fabrics; filtering meshes; yarns, incl. sewing; fiber; fire and welding blankets, other finished products.

Superb high-temperature insulation for critical industrial branches.



technical data sheet



# HIGH-TEMPERATURE SILICA MATERIALS

## FIELDS OF APPLICATION:

- **MANUFACTURING OF FIRE PROTECTION ARTICLES:**  
Welding blankets, fire blankets, screens and curtains.
- **HIGH-TEMPERATURE INDUSTRIAL INSULATION:**  
Insulation of furnaces, turbines, nuclear power plants, oil platforms, equipment.
- **METALLURGY:**  
As a filter for cleaning molten metals
- **AUTOMOTIVE AND AEROSPACE INDUSTRY:**  
Insulation of gas exhaust systems, etc
- **AS A RAW MATERIAL FOR PRODUCTS:**  
Thermal insulation mats and sleeves





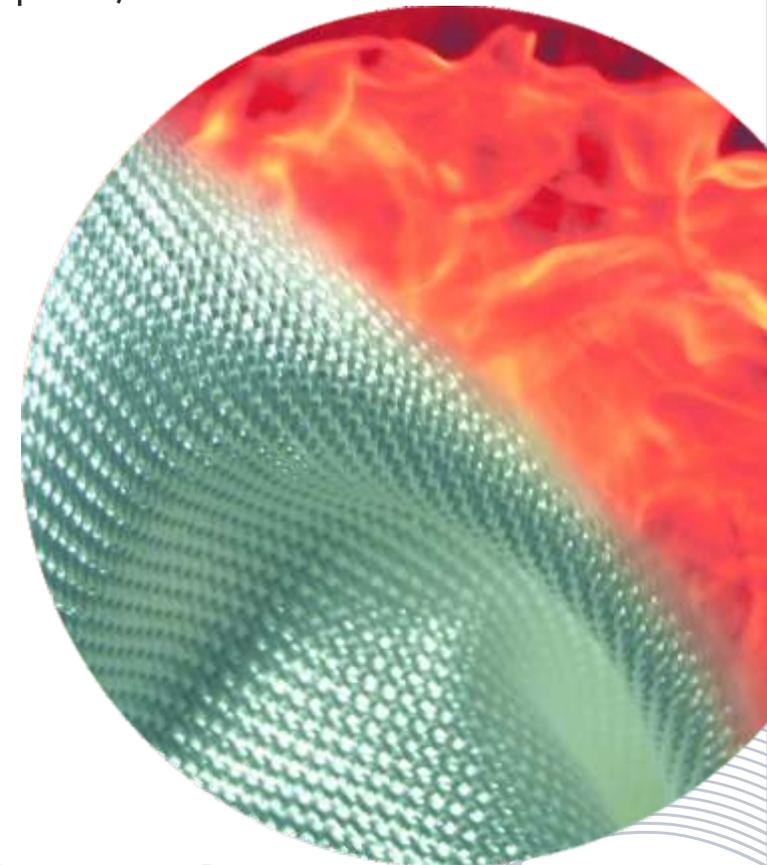
# SILICA FABRICS

Silica fabrics are used as a substitute for asbestos in various industries:

- as high-temperature industrial insulation (insulation of furnaces, turbines, oil platforms, equipment, aerospace equipment, nuclear power plant reactors);
- for manufacturing finished products (welding blankets, fire blankets, smoke and flame-retardant screens and curtains, thermal insulation mats and sleeves, casings to protect equipment).

Silica fabrics (SiO <sub>2</sub> content not less than 98%)									
Fabric type	Weave type	Fabric count, yarns per 1 cm		Weight per unit area, g/m <sup>2</sup>	Tensile strength, N/2,5 cm, not less		Mass fraction of Na <sub>2</sub> O, %, not more	Loss on ignition at temperature 1000°C, %	Width, cm
		warp	weft		warp	weft			
PS-1000-S	satin 12/7	17±1	13±1	1100±100	1800	1400	0,7	7-12	(62-210)±2
PS-1000-S-CH	satin 12/7	17±1	13±1	1100±100	1800	1400	0,7	7-14	(62-210)±2
PS-1000-S-TO	satin 12/7	17±1	13±1	1100±100	790	490	0,7	not more than 4,0	(62-210)±2,5
Silica fabrics from texturized yarns (SiO <sub>2</sub> content not less than 98%)									
PS-1400T	basket	12+1	6±1	1400±140	740	340	0,8	7-12	(62-210)+3-2
Silica fabrics (SiO <sub>2</sub> content not less than 98%)									
PS-180	plain	10+1	10±1	180±30	490	392	0,8	7-12	(88,95,100)±2
PS-600-S	satin 8/3	19±1	13±1	580±40	1100	800	0,7	7-12	(62-210)±2
PS-600-S-CH	satin 8/3	19±1	13±1	600±50	1100	800	0,7	7-14	(62-210)±2
PS-600-S-TO	satin 8/3	17±1	13±1	580±60	500	300	0,7	not more than 2,0	(62-210)±2,5
Silica fabrics (SiO <sub>2</sub> content not less than 94%)									
KT-11-30K	plain	9±1	8±1	300±30	780	740	0,8	7-12	(62-210)±3
KT-11-TO-30K	plain	9±1	8±1	300±30	300	300	0,7	not more than 1,0	(62-210)±3
KT-600-C	satin 8/3	19±1	13±1	600±60	1370	1080	0,7	7-12	(62-210)±2
KT-600-C-V	satin 8/3	19±1	13±1	600±50	1370	1080	0,7	7-12	(62-210)±2
KT-600-C-TO	satin 8/3	19±1	13±1	550±100	980	690	0,7	7-12	(62-210)±2,5
KT-1000-C	satin 12/7	17±1	13±1	1100±100	1960	1470	0,7	7-12	(62-210)±2
KT-1000-C-V	satin 12/7	17±1	13±1	1100±100	1960	1470	0,7	7-14	(62-210)±2
KT-1000-C-TO	satin 12/7	17±1	13±1	1100±100	1470	980	0,7	not more than 4,0	(62-210)±2,5

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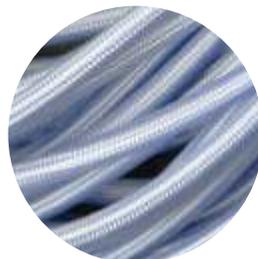




# SILICA YARNS

Silica yarns are used for weaving fabrics, tapes, braids for high-temperature insulation; in the cable industry in case of exposure to high temperatures up to 1200 C; for stitching silica fabric articles for fire protection, welding protection and other types of protection of technological equipment.

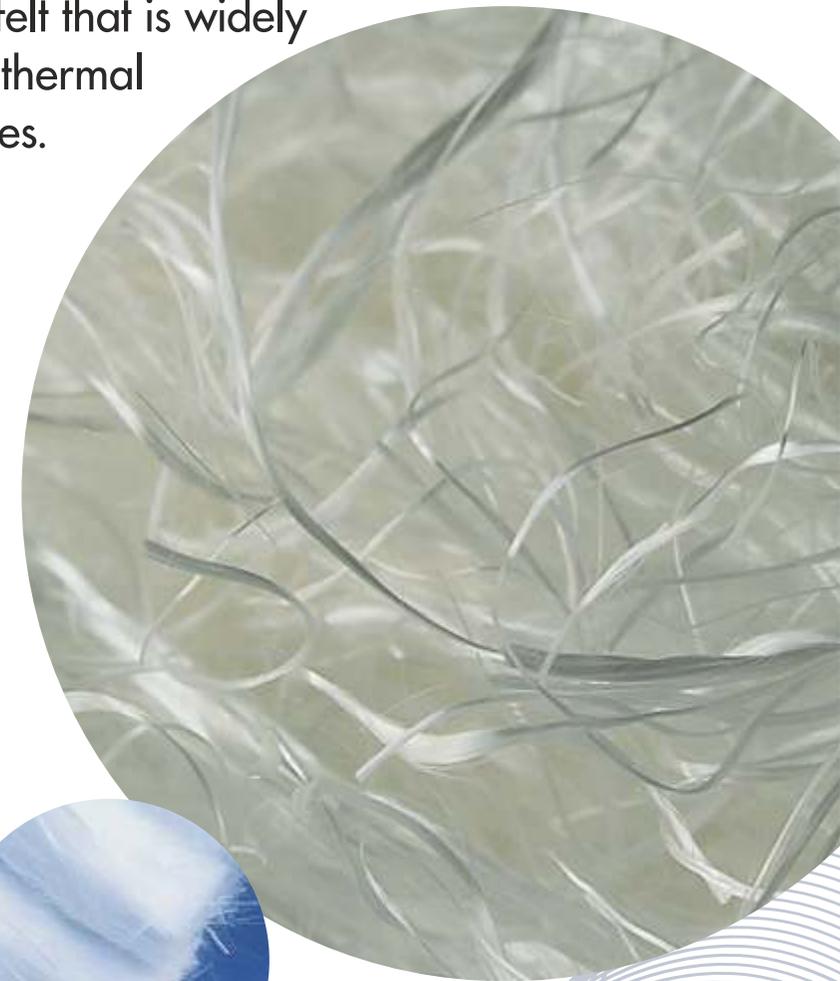
SiO <sub>2</sub> - not less 94%					
Yarn type	Total yarn linear density, tex	Twist value per 1 m	Twist direction: S - left Z - right	Tensile strength, N(kgf), not less	Loss on ignition, %
K11C6 68	68±5	200±20	S	15,0(1,5)	7-12
K11C6 90	90±7	150±15	S	20,0(2,0)	7-12
K11C6 136	136±10	130±13	S	29,0(3,0)	7-12
K11C6 180	180±14	150±15 or 250±25	S	39,0(4,0)	7-12
K11C6 180 x 3	540±42	20±4 or 100±15	Z	98,0(10,0)	7-12
K11C6 170 BA	170±20	150±15	S	39,0(4,0)	not more than 2
K11C6 170 BAF ( sewing yarn )	220±26	250±25	S	59(6,0)	not less than 17
K11C6 170 x 2 BA	340±40	100 15	Z	69,0(7,0)	not less than 2





# SILICA FIBER

Silica fiber is mainly used for the production of a needle felt that is widely applied in the automotive industry, metallurgy, nuclear and thermal power plants, insulation in electrical and combustion furnaces.



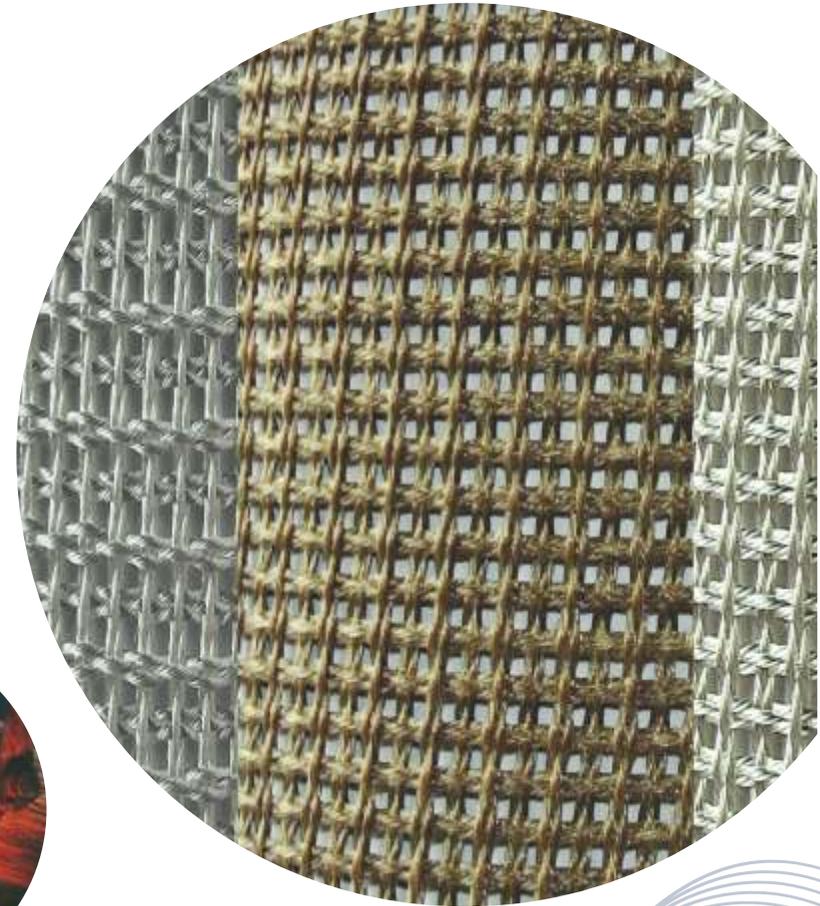
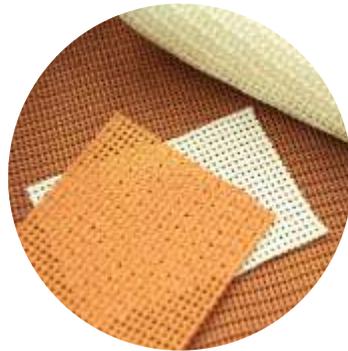
Fiber type	Nominal diameter of filament, microns	Fiber length, mm	Mass fraction of Na <sub>2</sub> O, % not more	Loss on ignition, %	Moisture, %, not more
<b>(SiO<sub>2</sub> - not less 94%)</b>					
KV-11(6), KV-11(9)	6±1, 9±1	50-100	0,8	7-12	3,5
<b>(SiO<sub>2</sub> - not less 98%)</b>					
PS-23(9)	9±1	50-100 150-200	0,8	7-12	3,5





# SILICA MESHES

Silica meshes are used as an effective filtering material for cleaning of melts of ferrous and non-ferrous metals while pouring them into the moulds. The use of silica mesh filters makes it possible to reduce casting defects by 2 times, to improve the metal structure, increase its physical-mechanical and technological properties.

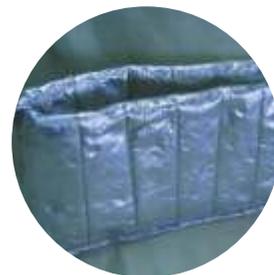




# ARTICLES MADE OF SILICA FABRICS

Fire blankets are designed to localize combustion in the initial stage of a fire, as well as to extinguish clothing on the victim by cutting off the access of oxygen. The blankets are made of silica fabrics. Also joint-stock company "Polotsk-Steklovolokno" produces other stitched products from silica fabrics, for example, thermal insulating sleeves for insulating mufflers and other finished products according to customer's orders.

Grade	Application	Blanket size (length and width), m	Extinguishing a standardized fire source of rank 13B	Localization of combustion of a standardized fire source of rank 1A	Time to open the container and fully open the blanket
PP-600	Localization of combustion in the initial stage of a fire, extinguishing burning clothing on a victim, protecting flammable structures and equipment during fire and welding work	(1,5x1,5; 1,5x2,0; 2,0x2,0)±0,02	within 1 minute	within 5 minutes	not more than 4 seconds





# THERMAL INSULATION JACKET

Reusable thermal insulation jacket is an excellent means of thermal insulation for a wide range of equipment:

- Heat exchangers
- Valves
- Pipe parts
- Pumps, etc.

Thermal jackets are made of heat-resistant materials (the inner side is covered with glass fiber, the outer side is glass fiber coated with silicone, the filler is needle-punched materials) and can be used at a constant operating temperature of up to 350°C; for a short time - at a temperature of 450°C.

The use of thermal jackets can significantly increase cost savings on production and purchase of thermal energy.

Thermal insulation jackets produced by our company have a number of advantages:

- protection of personnel from high temperatures during maintenance;
  - increasing the service life of equipment and its elements;
    - water-repellent properties;
    - reusability;
    - easy installation and disassembly.





# SILICONE COATED GLASS FABRICS

Silicone coating provides better abrasion and resistance to tearing of glass fabric. It provides great service life as well as water and oil resistance.

We can produce a two-sided coating with either red or transparent silicone. Maximum operating temperature of glass fabrics coated with transparent silicone is 260 C at continuous use and 300 C for fabrics coated with red silicone. Silicone coated glass fabrics are air-tight, vapor and moisture-proof.

Silicone coated fabrics are used for building and technical insulation. They are a perfect choice for protecting a variety of flexible hoses, lines, wires, cables and equipment assemblies. Also silicone coated fabrics are a great way of protection from exposure to high temperature, molten metal splash, slag, welding splatter, UV light, abrasion and contamination.

## APPLICATION:

- welding blankets and curtains
- fabric expansion joints
- technical insulation
- heat shields and containment
- fire blankets
- conveyor belts
- removable insulation cover
- thermal jackets

Type	Mass per unit area, g/m <sup>2</sup> , not less**	Thickness, mm **	Tensile strength, warp/weft, N/50mm, not less**		Mass fraction of binder, %, **	Width, cm	Roll length, m*	Covering
			warp	weft				
S 7628	209	0,270±0,040	392	294	7-12 20-25	90-132	500	Two-sided covering with transparent silicone
S 2116	106	0,090±0,020	210	200	7-12 20-25	90-132	500	
STG-660	860	0,710	1600	1150	10-25	90-132	50	Two-sided covering with transparent or red silicone
S PS-600	793	0,682	947	840	10-25	90-200	50	
STG-430	530	0,46	1200	800	10-25	90-132	50	

\*Other roll lengths can be agreed upon customer's request.

\*\*The table shows average values obtained as a result of manufacturing test batches.





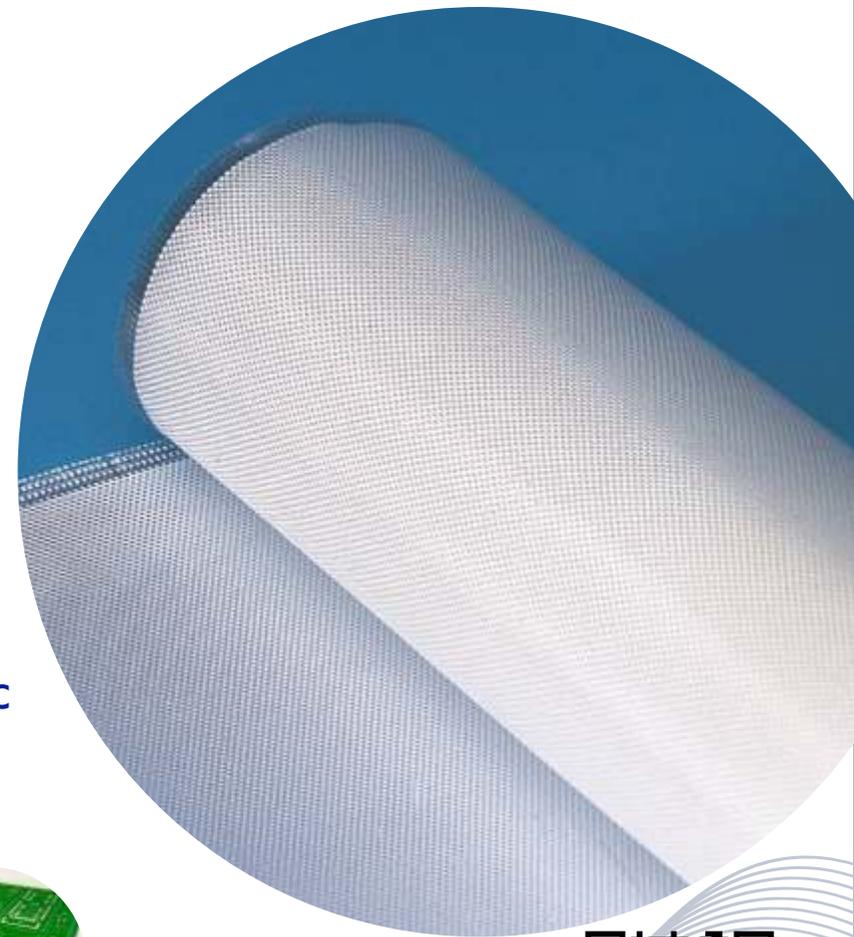
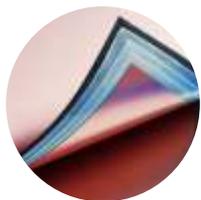
# ELECTRICAL INSULATION MATERIALS

## Electrical insulation materials

Electrical insulation glass fabrics with surface density from 24 to 400 g/m<sup>2</sup> are used for producing:

- Foiled laminates (printed circuit board basis);
- Technical plastics;
- Flexible insulations (glass fabrics, micanites, mica-like materials).

Application: production of blocks, panels, computer circuits, devices, insulation of electric motors and electric machine units, electric circuits.



technical data sheet



# ELECTRICAL INSULATION MATERIALS

Fabric type	Weave type	Fabric count, yarns per 10 cm		Weight per unit area, g/m <sup>2</sup>	Fabric thickness, mm	Tensile strength, N, not less		Loss on ignition, %	Width, cm	Type of sizing (finish)
		warp	weft			warp	weft			
<b>Glass fabrics for production of flexible insulation</b>										
<b>E1/1-100PM</b>	plain	160+10	165±10	110±6	0,100±0,010	588	588	1,0-1,8	(90,100,107)±1%	textile
<b>E1/1-100PM-21</b> <b>E1/1-100PM-21</b>	plain	160+10	160±10	110±6	0,11±0,01	245	216	0,1-0,3	(90,100,107)±1%	silane (Z 6224)
<b>771</b>	plain	236±8	105±8	33±5	0,045±0,008	270	30	not more than 4,5	(90,103)±1	textile
<b>792*</b>	plain	260±10	150±10	23±2	0,03±0,001	200	100	not more than 3,0	(90,103)±1	textile
<b>2116</b>	plain	240±8	228±8	99,0-108,5	0,094±0,01 0,094±0,008	210 206	200 196	not more than 0,3	(100,110,127)±1% (110,120,127)±1,3-0	textile silane (Z 6224)
<b>2165</b>	plain	240±8	205±8	114,3-126,5	0,105±0,005 0,105±0,010	210 206	220 196	not more than 0,3	(110,127)±1% (107,110,127)±1,3-0	textile silane (Z 6224)
<b>1080</b>	plain	240±8	190±8	47,8-49,2	0,053±0,005	147	98	not more than 0,3	(107,110,127)+1,3-0	silane (Z 6224)
<b>2113</b>	plain	236±8	220±8	74,5-84,4	0,072±0,005	294	147	not more than 0,3	(90-132)±1%	silane (Z 6224)
<b>E-120</b>	plain	120±6	115±5	122±6	0,120±0,012	440	790	1,0-3,0	(100,103,107,110,120, 122,127,167)±1%	textile
<b>E-130</b>	plain	120+4	120+4	128±6	0,130±0,013	900	550	not more than 2,5	(100,103,107,110,120, 122,127,167)±2%	textile
<b>162237</b>	plain	70+2	70±3	195±10	0,212±0,028	400	300	0,07-0,3	(55-113)±1	starch

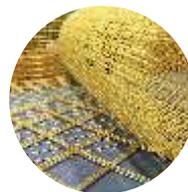
Fabric type	Weave type	Fabric count, yarns per 10 cm		Weight per unit area, g/m <sup>2</sup>	Fabric thickness, mm	Tensile strength, N, not less		Loss on ignition, %	Width, cm	Type of sizing (finish)
		warp	weft			warp	weft			
<b>Glass fabrics for production of foiled and non-foiled laminates</b>										
<b>E3-180PM-21</b>	plain	170+10	120±10	200±15	0,180±0,020	246	196	0,07-0,30	(95-132)±1%	silane (Z 6040, Z 6224)
<b>E3-400PM-T-19</b>	plain	120+10	60±10	360±25	0,40±0,05	1470	539	0,3-1,1	107+0,5-1	silane (Z 6040)
<b>7628L</b>	plain	170+4	118±4	206±3	0,180±0,018	392	294	0,07-0,30	(96-132)+1-0	silane (Z 6224)
<b>7628M</b>		170+4	122±4	210±4	0,180±0,018	392	294	0,07-0,30	(96-132)+1-0	textile
<b>7628-TO</b>		170+4	118±4	209±6	0,180±0,018	246	200	not more than 0,1	(96-132)±1%	
<b>7628L/S</b>		170+5	118±2	209±6	0,180±0,018	980	784	not more than 2,5	(100,107,110, 120,127,145) +2-0%	
<b>7630</b>	plain	120+4	120±4	165±8	0,165±0,020	344	344	0,07-0,30	(96-132)+1-0	silane (Z 6224)
<b>7637</b> <b>7637M</b>	plain	170+4	82±4	230±10	0,220±0,035	540	344	0,07-0,30	(96-132)+1,8-0	silane (Z 6224)
<b>7642</b>	plain	170+4	78±4	230±8	0,250±0,03	540	294	0,07-0,30	(96-132)+1,8-0	silane (Z 6224)
<b>2157</b>	plain	236±8	135±8	148±5	0,150±0,020	200	400	0,07-0,30	(96-132)+1,8-0	silane
<b>E3-200</b>	plain	100+10	90±10	200+16-10	0,190+0,010 -0,020	1127	1078	1,0-1,9	100±2	silane
<b>Glass fabrics for production of flexible insulation</b>										
<b>E1-62PM-19</b> <b>E1-62PM -20</b>	plain	200+10	200±10	67±4	0,080±0,008 0,073±0,007	196	108	0,1-0,3	(50-127)±1%	silane (Z 6224)



# BUILDING AND THERMAL INSULATION MATERIALS

- Building glass fiber meshes
- GRP composite mesh
- Thermal insulation non-woven materials (mats)
- Rolled glass reinforced plastic
- Building windproof membrane
- Building glass fabrics
- Glass fabrics RATL for roofing materials
- Building insulation glass fabrics ISOBLACK, ISOWHITE
- Glass mesh for reinforcement of cutting wheels

Applied almost in all branches of industry – from building of underground utilities to roofing installation and repair.



technical data sheet



# SSSH GLASS MESH

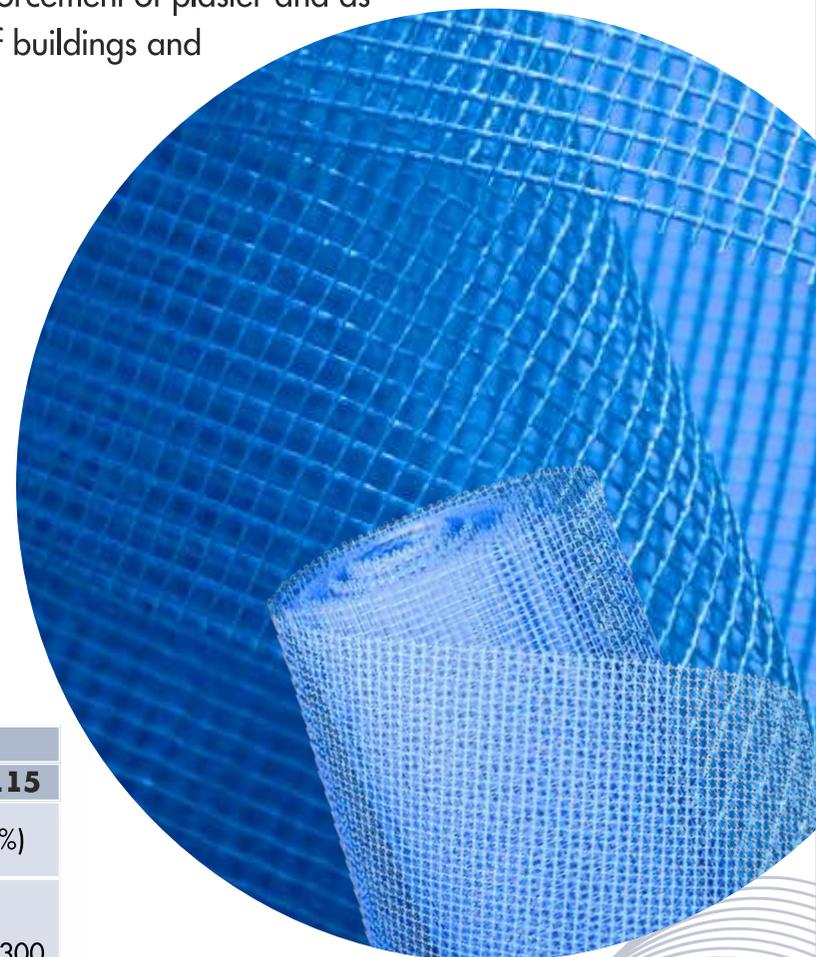
SSSH glass mesh is a modern building material which is used for reinforcement of plaster and as a reinforcing material in systems with thermal insulation of filler structures of buildings and facilities; reinforcement of concrete products, architectural forms.

### Main advantages:

- Resistance to aggressive environments, including alkaline ones;
- High elasticity and strength;
- Excellent adhesion to putty and plaster;
- Protection of coating from cracks;
- Ecological cleanliness.

### Application:

- Reinforcement when leveling walls and ceilings
- Reinforcement of surfaces with cracks or subject to cracking;
- Reinforcing joints between sheet materials before leveling them;
- Reinforcement of floor leveling mixtures;
- Waterproofing reinforcement.



Parameter name	Norms			
	SSSH-160	SSSH-160L	SSSH-160-A	SSSH-115
Mass per unit area, g/m <sup>2</sup>	155 (±7%)	138 (±7%)	160 (±5%)	115 (±7%)
Tensile strength, warp/weft, N/50mm, not less than:				
-Initial state	1800/1800	1500/1500	2000/2000	1300/1300
-After exposure to an alkaline solution within 28 days	900/900	750/750	1000/1000	650/650
Loss on ignition, %, not less than	11	11	18±3	13



# GRP COMPOSITE MESH

## ADVANTAGES OVER METAL WELDED MESH:

- Exceptional mechanical strength. Resistance to fracture and physical impacts. Withstanding of higher tensile and bending strengths.
- Radio transparency. No cell phone reception disruption.
- Extended period of operation.
- Low thermal conductivity. No cold bridges are created.
- Corrosion resistance. High strength of adhesion to concrete.
- Dielectric. No electrochemical corrosion.
- Low mass. Convenience of transportation and application.

## APPLICATION:

- Reinforcement of masonry joints in the walls made of bricks and building blocks.
- Strengthening of brick walls.
- Screed and reinforcement of concrete slabs and floors.
- Fixing base for heat insulation work.
- Strengthening of coastal and hydraulic structures, slopes.
- Support for plants, landscape design elements, fencing.

Parameter name	Value
Tensile strength of bundles in the longitudinal direction and rods in the transverse direction, MPa, not less than	800
Elasticity modulus in tension of bundles in the longitudinal direction and rods in the transverse direction, GPa, not less than	40
Reduction in tensile strength of bundles in the longitudinal direction and rods in the transverse direction after soaking in an alkaline environment, %, not more than	20

Remark: \* Value of "Reduction in tensile strength of bundles in the longitudinal direction and rods in the transverse direction after soaking in an alkaline environment" is determined for meshes designed for use in an alkaline environment during a long period of time (not less than 50 years).

Rod diameter: 2-6 mm  
 Square cell size: 50, 100, 150, 200 mm.

Finished product form: a sheet of 1x2,2 m, a roll of 30 LM. (width of 100-220cm).

Mesh colour can be discussed with the Customer. It's possible to produce mesh with non-standard parameters.





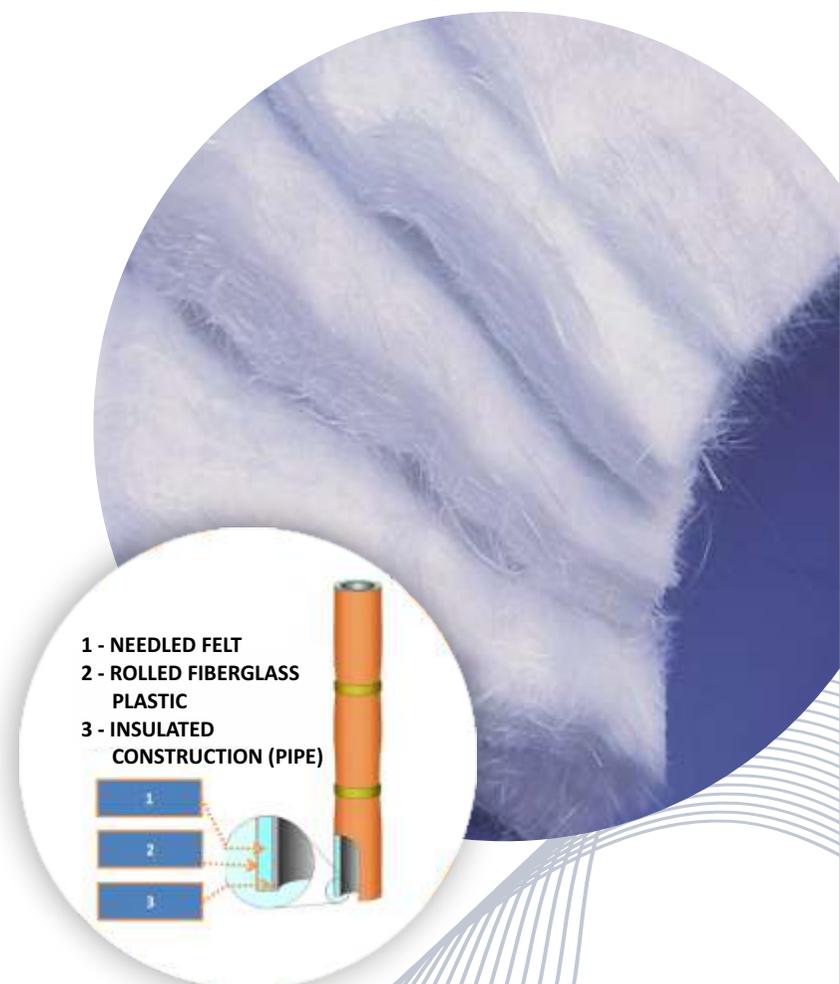
# THERMAL INSULATION NON-WOVEN MATERIALS

Thermal insulation non-woven materials are produced from E-glass or basalt fiber and are mainly used as insulation of gas ovens, steam boilers, turbines, supply lines, pipe work — where changing of temperature conditions is not allowed, where heat should be controlled and maintained, where usage of binding resins is not allowed, as well as superb noise insulation.

Parameter name				Non-woven
	IPM-E-6-800	IPM-E-9-1000	IPM-E-12-2000	IPS-T-1000
Mass – area ratio, g/m <sup>2</sup>	800±12	1000±12	2000±12	1000±200
Thickness, mm	6±1	9±1	12±1	6,0±2
Loss on ignition, not more (%)	2	2	2	2,5
Thermal conductivity 25C°, WT/m K), not more	0,031	0,031	0,033	0,041
Compressibility %, not more	33	30	19	—
Vapor permeability, mg/m h Pa., not less	0,26	0,25	0,24	—
Frost resistance, cycles	30	30	30	—
Elasticity, %, not less	66,7	88,3	86,4	—
Width, cm	(25-200)±1			140±3,5
Roll length (cm)	10-50			not less 15
Temperature application field	- 40 /+ 550C°			
Fire hazard class	Non-flammable materials			

IPM complies with: TU BY 300059047.049-2004

IPS complies with: TU BY 300059047.088-2009





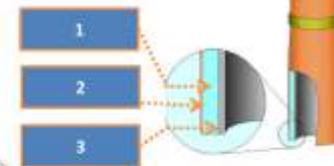
# ROLLED GLASS REINFORCED PLASTIC

Rolled glass reinforced plastic is used as a covering on top of heat-insulating materials to protect pipes and equipment from environmental impact (dust, dirt, precipitation, etc.) thanks to special latex impregnation.

Parameter name	GRP grade	
	GRP 250 L	GRP 420H
Mass – area ratio, g/m <sup>2</sup>	250(-15%/+20%)	420(-15%/+20%)
Type of polymer binder	latex	chemical resistant varnish
Mass fraction of polymer binder	not less 20%	
Width, mm	(1000, 1100, 1270)± 20	
Roll length, m	100±5%	
Fire technical indicators	Flammability group G1 Flame spread group RP1 Flammability group B1 Moderate smoke generating capacity	
Application area	insulation of pipelines inside buildings	insulation of pipelines outside buildings



- 1 - NEEDLED FELT
- 2 - ROLLED FIBERGLASS PLASTIC
- 3 - INSULATED CONSTRUCTION (PIPE)

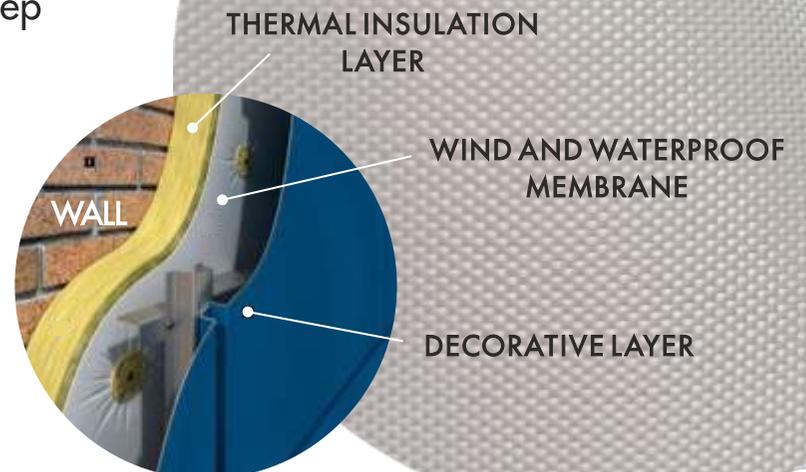
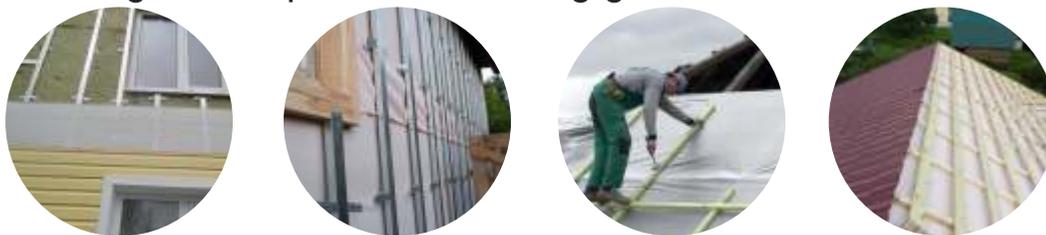




# MSV-NG NON-COMBUSTIBLE BUILDING MEMBRANE

Building membranes are used in hinged facade systems and ventilated facades for wind and hydro protection of the thermal insulation layer. Such a membrane eliminates the erasure of the fiber of the insulation itself.

MSV-NG membrane manufactured by JSC "PSV" is non-flammable, has a high degree of strength, durability and at the same time provides vapor permeability to ensure system ventilation. These high technical characteristics of our membrane, in comparison with cheap combustible analogues made on the basis of chemical fibers, are provided by the use of glass fabric with special impregnation. MSV-NG fire-resistant building membrane not only protects the insulation from moisture and weathering, but also prevents deep freezing or cold penetration during gusts of wind.



Building membrane complies with the requirements of the technical regulations on fire safety requirements. Certificate of Conformity No RU C-BY.AД67.B.00517/23. Complies with GOST 30244-94 (method 1) "Building materials. Methods of testing for combustibility". The flammability group is NG (non-combustible). TU BY 300059047. 016-2015.

Mass per unit of area, g/m <sup>2</sup>	Width, cm	LOI,%	Tensile strength, N/25 mm:		Breathability, dm <sup>3</sup> / (m <sup>2</sup> ·s)	Resistance to vapor permeability, m <sup>2</sup> · h·Pa/mg	Tear strength when fixed with roofing nails, N	Flammability
			warp	weft				
208 - 220	120, 127	not less than	1300	1000	not more than 80	0,03	140 -150	non-flammable



# TSR GLASS FABRICS

TSR glass fabrics are used in waterproofing, thermal insulation, roofing, as well as for manufacturing glass reinforced plastic and foiled glass fabrics.

Type	TSR-120	TSR-140	TSR-160	TSR-230	TSR-260
Glass type	E-glass				
Weave	Plain				
Yarn type					
Warp	EC9 71	EC9 71	EC9 71	EC9 136	EC9 136
Weft	EC9 71	EC9 102	EC9 71	EC9 136	EC9 136
Yarn count per 1 cm:					
Warp	9±0,5	9±0,5	16,0+1,0	10,0+1,0	12,0+1,0
Weft	8±1	7+1	7,0+1,0	7,0+1,0	7,0+1,0
Mass – area ratio, g/m <sup>2</sup>	120±15	140±20	160±20	230±25	260±25
Tensile strength, N/25mm, not less than:					
Warp	450	500	590	800	900
Weft	450	500	490	700	800
Loss on ignition (%)	Not more than 3.0				
Standard roll length (m)	350±30 m	350±30 m	300±30 m	200±20 m	200±20 m
Number of rolls per pallet	24				
Pallet size	115x115				

TU BY 300059047.021-2020

### Available parameters:

Width: 100-150 cm  
Length: 10m-1200 m

### Packing

Rolls are packed horizontally on a wooden pallet. Way of packing can be changes at the Customer's request.





# RATL AND ARGIS ROOFING GLASS

RATL and ARGIS glass fabrics are used as a base in the production of rolled fused roofing materials, which are used for installation of new mastics and repair of old roofs of any configuration, as well as waterproofing of concrete tanks, hydraulic channels, bridges, water pipes, drains, foundations and underground structures operated in a wide temperature range and in various climatic conditions.

Type	<b>RATL 120</b>	<b>RATL 160</b>	<b>RATL 190</b>	<b>ARGIS 200</b>	<b>RATL 210</b>
Thickness g/m <sup>2</sup>	120(+20,-10)	160(+10,-20)	190(+15,-20)	200(+15,-0)	210(+20,-0)
Nominal width, cm	100	100	100	100	100
Tensile strength, N, not less than:					
Warp	784	830	882	1000	1000
Weft	882	930	980	1000	1000

RATL: TU BY 300059047.061-2022  
 ARGIS: TU BY 300059047.125-2019





# ISOBLACK AND ISOWHITE BUILDING INSULATION GLASS FABRICS

Application: in thermal insulation (covering layer, base material, mat lamination); wind protection of the heat-insulating layer of pitched roofs and curtain facades; installation of temporary fencing; decorative lining.

Type	2116-B/W	2165-B/W	7628-B/W
Weave	Plain		
Yarn count per 10 cm:			
Warp	240 + 8	240 + 8	170 + 4
Weft	228 ± 8	205 ± 8	118 ± 4
Mass – area ratio, g/m <sup>2</sup>	110 ± 10	125 ± 10	217 ± 10
Tensile strength, N, not less than:			
Warp	440/206	440/206	588/490
Weft	412/206	412/206	490/345
Loss on ignition (%)	Not less than 2		
Width, cm	100, 120, 127		

TU BY 300059047.129-2020

**Parameters:**

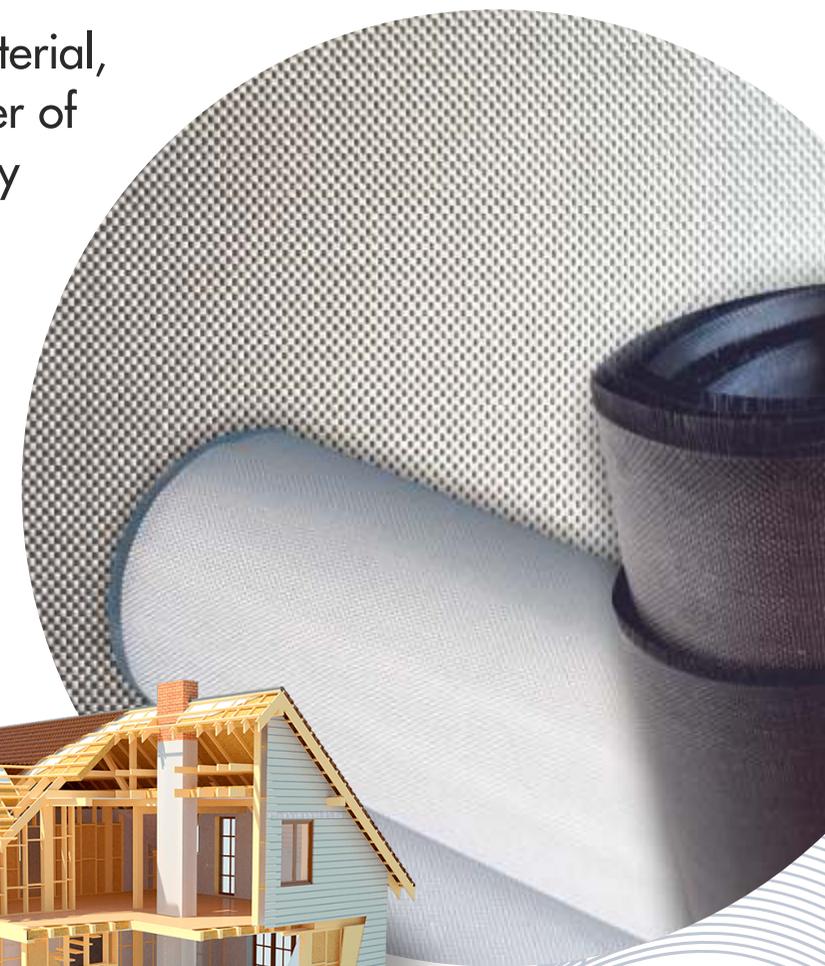
Roll length: 10 m and more  
Impregnation of black or white colour

**Quality control:**

According to technical specifications of the Republic of Belarus (TU BY)

**Packing:**

Rolls are packed horizontally on a wooden pallet.  
Packing method can be changed at the Customer's request.



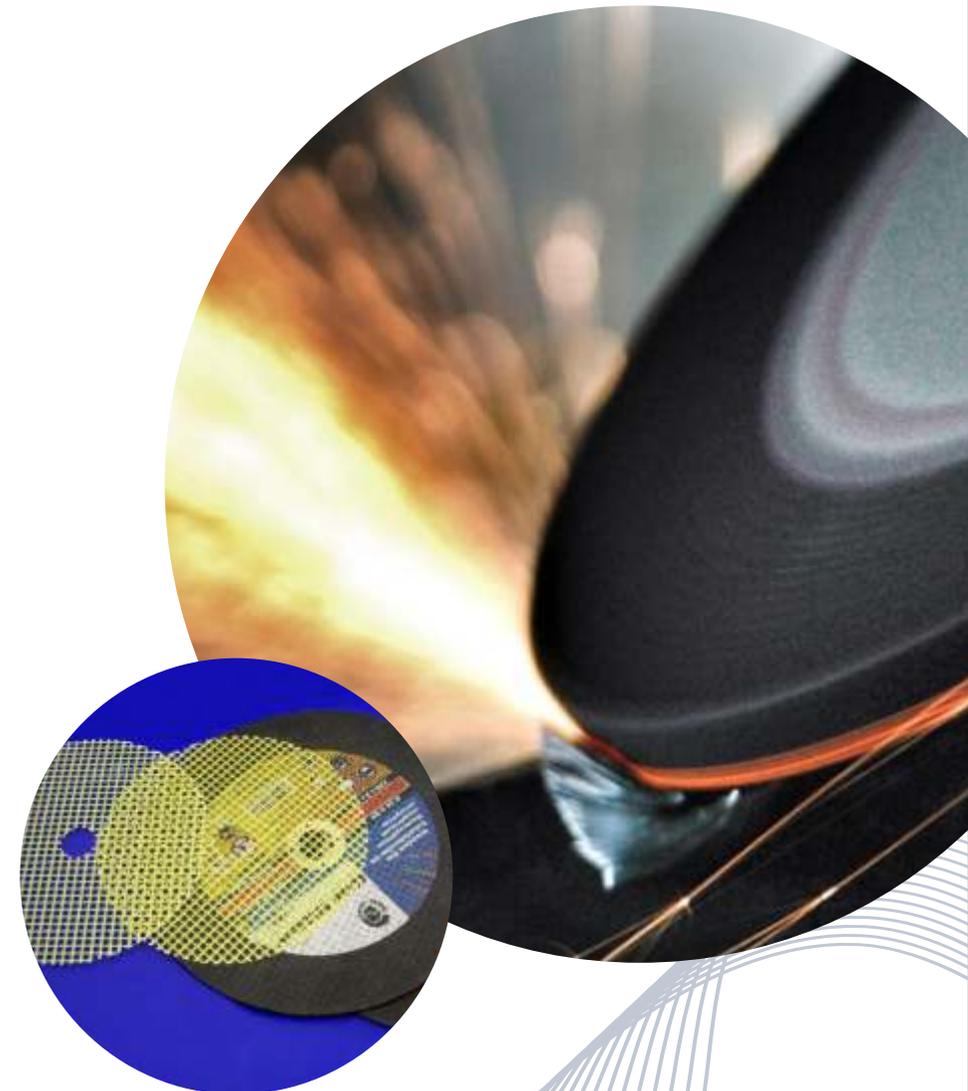


# GLASS MESHES FOR REINFORCEMENT OF CUTTING (ABRASIVE) WHEELS

## Application:

- Reinforcement of abrasive wheels,
- Reinforcement of glass magnesium sheets.

Type	SPAP-370	SPAP-250	SPAP-180	SPAP-150	SPAP-120	SPAP-100
Thickness, mm no more than	1,0	0,9	0,6	0,5	0,35	0,3
Mass – area ratio, g/m <sup>2</sup>	370±25	250±25	180±25	150±15	120±15	100±15
Yarn count per 10 cm: Warp Weft	40+2 20±1	40+2 20±1	80+2 40±1	80+2 40±1	80+2 39±1	80+2 40±1
Tensile strength, N, not less than:						
Warp	700	610	450	360	300	250
Weft	700	610	450	360	300	250
Content of binder, [%]						
- version 1	30-33					
- version 2						
Volatile and moisture content, [%]:						
- version 1	1,1±0,2					
- version 2						





# MATERIALS FOR GRP AND OTHER TECHNICAL APPLICATIONS

## TYPES OF MATERIALS:

- Rovings (incl. direct and spray-up rovings);
- Glass fabrics (incl. roving fabrics);
- Chopped strand mat (CSM);
- Yarns;
- Chopped fiber.

Application in the composite industry.



technical data sheet



# MATERIALS FOR GRP AND OTHER TECHNICAL APPLICATIONS

## PRODUCTION OF COMPOSITES:

- Aircraft industry, shipbuilding, car building, automotive industry
- Production of different glass fiber reinforced plastic structures and articles (playgrounds, stadiums, swimming pools, etc.)
- Military-industrial complex

## TECHNICAL INSULATION

- Thermal, electric and acoustic insulation

## AS RAW MATERIAL FOR PRODUCTION OF WOVEN AND NON-WOVEN PRODUCTS:

- Meshes, tapes, fabrics, cords, glass tissue, glass mats

## OTHER APPLICATION FIELDS:

- Filler for engineering plastics and press materials
- Cylindrical articles, different profiles



# GLASS FABRICS FOR GRP AND

Fabric type	Weave type	Fabric count, yarns per 10 cm		Weight per unit area, g/m <sup>2</sup>	Thickness, mm	Tensile strength, N/2,5 cm, not less		Loss on ignition, %	Width, cm	Sizing type
		warp	weft			warp	weft			
<b>Glass fabrics for technical applications</b>										
<b>TG-660</b>	twill 2/2	250-260	125-145	525-595	0,475-0,585	6000 H/5,0 cm	2700 H/5,0 cm	not more than 1,8	119-121	starch
<b>TG-800 TG-800-30A</b>	check	140+10	140+10	800±60	0,65±0,06	6000 H/5,0 cm	4500 H/5,0 cm	not more than 1,8 not more than 1,4	100±1	starch silane

Fabric type	Type of weaving	Fabric count, yarns per 10 cm		Weight per unit area, g/m <sup>2</sup>	Thickness, mm	Tensile strength, N/2,5 cm, not less		Loss on ignition, %	Width, cm	Sizing type
		warp	weft			warp	weft			
<b>T-15(P)-76</b>	satin 5/3 or satin 8/3	240+10	180±10	160±16	0,19±0,03	784	687	not less than 0,6	(92,95)±2-1%	aminosilane
<b>T-15(P)P-76 (P* with leno selvege)</b>	satin 5/3 or satin 8/3	240+10	180±10	160±16	0,19±0,03	784	687	not less than 0,6	(92,95)±2-1%	aminosilane
<b>T-46P)-76</b>	satin 5/3	220+10	160±10	216±16	0,26±0,03	1176	784	not less than 0,6	(80,95)±2-1%	aminosilane
<b>T-300(P)-76</b>	plain	100+10	100±10	300±40	0,33±0,03	1280	1280	1,0-2,5	(100,120,140)±1%	aminosilane
<b>T-C 8/3(P)-76</b>	satin 8/3	360+10	200±10	205±15	0,26±0,03	1470	784	not less than 0,6	95±2-1	aminosilane

Fabric type	Weaving	Fabric count, yarns per 1 cm		Fabric weight, g/m <sup>2</sup>	Tensile strength, N/2,5 cm, not less		Loss on ignition, %	Air permeability at pressure drop 0,1 kPa, dm <sup>3</sup> /m <sup>2</sup> c	Width, cm	Sizing type (finish)
		warp	weft		warp	weft				
<b>TSFT-4P</b>	twill 1/3	16+1	13±1	424±26	1960	784	not more than 1,8	not less than 230	45x2 (44,0-45,2) (90,100) +0,4-2,0	wax emulsion
<b>TSFT-4P-SFBM</b>					1764	637	not less than 1,2	not less than 200		(SFBM)
<b>TSFT-4P-SGF</b>					1764	637	not less than 1,2	not less than 200		(SGF)

Fabric type	Weave type	Fabric count, yarns per 10 cm		Weight per unit area, g/m <sup>2</sup>	Thickness, mm	Tensile strength, N/2,5 cm, not less		Loss on ignition, %	Width, cm	Sizing type
		warp	weft			warp	weft			
<b>Glass fabrics for GRP</b>										
<b>T-10-14, T-10P-14</b>	satin 8/3	360+10	200±10	290±5%	0,23±15%	2940	1568	not less than 0,3	92 (+2-1)%	aminosilane wax emulsion
<b>T-10, T-10P* (P* with leno selvege)</b>	satin 8/3	360+10	200±10	290±5%	0,23±15%	2450	1323	not more than 2,0	92 (+2-1)%	wax emulsion
<b>T-11</b>	satin 8/3 or satin 5/3	220+10	130±10	385±5%	0,30±15%	2744	1568	not more than 2,0	92,100,105 (+2-1)%	wax emulsion
<b>T-11P*-GVS-9 (P* with leno selvege)</b>	satin 8/3 or satin 5/3	220+10	130±10	385±5%	0,30±15%	1764	931	not more than 0,5	92,100,105 (+2-1)%	vinyl silane
<b>T-13 P</b>	plain	160+10	100±10	285±5%	0,27±15%	1764	1176	not more than 2,0	92,97,100,107 (+2-1)%	wax emulsion
<b>T-13PM</b>	plain	120+10	80±10	285±14	0,27±0,04	1764	1176	not more than 2,0	100 (+2-1)%	starch
<b>UTS-P-30A</b>	satin 4/3	200+10	100±10	243±20	0,19±0,02	2450	294	not less than 0,5	(87,100,120)±2%	silane
<b>CE-O-1</b>	plain	100+10	90±10	195±16	0,20±0,02	686	583	-	(90,95,100)±2	vinyl silane
<b>Type 120</b>	4-H satin	236+10	229±10	105±10	0,095±0,015	700	700	not less than 0,6	100+2%-1%	silane
<b>TR-0,3/2-30A</b>	plain	50±1	20±1	350±30	0,30±0,05	3200	1200	0,5-1,0	(103,107)±1	silane
<b>TR-0,7-30A</b>	plain	30±2	20±2	830±80	-	3200	2450	not less than 0,5	(90,120)±2-1	silane
<b>TRSH-P-0,7-30A</b>	plain	50+1	25±1	600±30	0,7+0,1-0,2	-	-	not less than 0,5	(97,107)±1%	silane
<b>TR-560-30A</b>	plain	30±1	30±1	560±40	0,45±0,05	2800	2800	not less than 0,35	(90,100)±2	silane
<b>TR-720-30A</b>	plain	30±1	29±1	720±70	0,65±0,07	3500	3500	not less than 0,35	(100,120)±2	silane
<b>Glass fabrics for technical applications</b>										
<b>TG-200</b>	twill 2/2	170+10	120±10	210±5	0,180±0,018	1570 H/5,0 cm	1250 H/5,0 cm	not more than 1,8	(100,110,122) +2-0	starch
<b>TG-430 TG-430-TO TG-430-30A</b>	satin 4/3	200+10	100±10	420±30	0,38±0,03 0,38±0,03 0,34±0,03	3920 H/5,0 cm 3500 H/5,0 cm 3920 H/5,0 cm	1960 H/5,0 cm 1800 H/5,0 cm 1960 H/5,0 cm	not more than 1,8 not more than 0,5 not more than 1,4	(100-200)±2-0 (100-200)±1 (100-200)±1	starch silane
<b>TG-530</b>	twill 2/2	250+10	120±10	535±20-10	0,50±0,03	4500 H/5,0 cm	2000 H/5,0 cm	not more than 1,8	102±1	starch
<b>TG-600 TG-600-30A</b>	check	140+10	140±10	600±40	0,50±0,07	4000 H/5,0 cm	3500 H/5,0 cm	not more than 1,8 not more than 1,4	100+2-0	starch silane
<b>TG-660 TG-660-TO TG-660-30A</b>	satin 8/3	160+10	160±10	660±40	0,50±0,05 0,60±0,06 0,50±0,05	5880 H/5,0 cm 5000 H/5,0 cm 5880 H/5,0 cm	3920 H/5,0 cm 3500 H/5,0 cm 3920 H/5,0 cm	not more than 1,8 not more than 0,5 not more than 1,4	(100,120,150)±1 (100,120,200)±1	starch silane



# CHOPPED STRAND MAT

CHOPPED STRAND MAT IS A NONWOVEN MATERIAL MADE OF CHOPPED FIBER WITH UNIFORM DISTRIBUTION.

CSM produced by JSC "Polotsk-Steklovolokno" have 300, 450, 600 g/m<sup>2</sup> weight and 125 cm width.

## ADVANTAGES:

The benefit from the usage of CSM lies in the easiness of its handling. CSM has light specific weight, it is well formed and it shapes easily. The process is becoming labor saving. CSM is characterized by good impregnation with polyether resins and it is perfect for deaeration during laminating. Laminates fabricated from CSM can boast of good mechanical properties as well as superb resistance to continuous weather impact.

## APPLICATION FIELDS:

CSM is used as reinforcing filler in the production of composites of different application. First of all it is applied in such areas as automotive industry, mechanical engineering, shipbuilding, building sector, road construction etc. CSM forms the basis of such goods as hulls of boats, yachts, cutters, truck cabs, railway cars, in the base of upper layers of roadway covering and it is used as well to produce various containers, euro fences, alongside with manufacture of banisters, dustbins, etc. for community facilities.



Type	Nominal mass per area unit, g/m <sup>2</sup>	Permissible tolerance of nominal mass per area unit, %		LOI, %	Moisture content, %, not more than	Tensile strength, N, not less than	Solvency in styrene, s, not more than	Width, cm
		average value	single value					
CSM 300	300	±12	±20	60±1,2 not more than 5,4	0,3	150	40	125±2,5 (for edge E) 125±0,5 (for edge S)
CSM 450	450	±12	±20	5,5±1,1 not more than 4,8	0,3	150	40	
CSM 600	600	±12	±20	5,0±1,0 not more than 4,8	0,3	150	50	
CSM 900	900	±12	±20	not more than 5,0 not more than 4,8	0,3	150	50	



# WOVEN ROVING FOR GRP

Woven Roving fabrics provide the most economical solution for raising glass content of laminates and increasing overall laminate flexural and impact resistance without adding thickness, weight, or other non-reinforcing materials.

The main application areas:  
Hand lay-up process, mould pressing, machinery formation.



Fabric type	Weave type	Yarn count per 10cm, pieces		Mass-area ratio, g/m <sup>2</sup>	Thickness, mm	Tensile strength, N, not less		Loss on ignition, %	Emulsion type
		warp	weft			warp	weft		
TR-290-50C	plain	48±1	44±1	290±25	0,28±0,05	1800	1725	not more than 1,0	silane
TR-0,3/2-30A	plain	50±1	20±1	350±30	0,30±0,05	3200	1200	0,5-1,0	silane
TR-0,3/3-30A	plain	40±1	17±1	350±30	0,30±0,05	4000 <sub>H/50mm</sub>	2100 <sub>H/50mm</sub>	0,5-1,0	silane
TR-320-50C	plain	50±1	54±1	320±40	0,35±0,04	3000 <sub>H/50mm</sub>	3000 <sub>H/50mm</sub>	not less than 0,35	silane
TR-560-30A	plain	30±1	30±1	560±50	0,45±0,07	6000 <sub>H/50mm</sub>	4900 <sub>H/50mm</sub>	not less than 0,35	silane
TR-580-50C	plain	23,5±1	25±1	580±20	0,56±0,05	2750	2500	not less than 0,6	silane
TR-720-30A	plain	30±1	29±1	720±70	0,65±0,07	7000 <sub>H/50mm</sub>	7000 <sub>H/50mm</sub>	not less than 0,35	silane
TR-0,7-30A	plain	30±2	20±2	830±80	-	3200	2450	not less than 0,5	-
TR-1000-30A	plain	50±1	30±1	980±60	0,85±0,1	4000 <sub>H/25mm</sub>	3000 <sub>H/25mm</sub>	not less than 0,35	silane



# GLASS ROVINGS

Assembled and direct rovings are used for production of roving fabrics, meshes, construction mats, composite products by:

- winding (pipes, tanks, cylinders, etc.);
- pultrusion (profiles, fittings);
- spraying (shower cabins, bathtubs);

as well as for production of glass-filled engineering plastics.

Different sizing types allow interaction with various resins in the manufacture of glass fiber products.

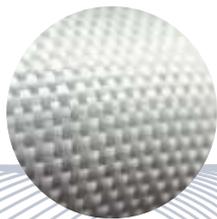
## PRODUCT RANGES:

EC11 200 18C  
EC14 300 118  
EC17 2400 53C  
EC25 4800 53C  
EC13 2400 57R(40)

## PARAMETERS:

Weight: 10 - 22 kg.  
Linear density: 200 - 4800 tex.  
Fiber diameter: 11 - 25  $\mu\text{m}$

TU BY 300059047.001-2022





# CONSUMER GOODS

- Boats
- Nordic walking sticks
- Skiing sticks
- Slopes for children's chutes
- Auto blanket



Manufacturing of other glass fiber reinforced plastic consumer goods is possible upon request (sandboxes, seats, boxes for solid household waste, etc.)



# BASALT FIBER AND PRODUCTS ON ITS BASIS

Raw material for production – rocks of basalt group.

## UNIQUE COMBINATION OF PROPERTIES

- Extended range of application properties (up to 700C);
- Increased mechanical strength (25% higher than E-glass);
- Increased chemical resistance in alkaline, acidic environment, as well as in sea water;
- Low price in comparison with high cost of special designation glasses;

Basalt is in intermediate position between E-glass and special fibers (silica, carbon, aramid, etc.).





# BASALT FIBER AND PRODUCTS ON ITS BASIS

- **BASALT ROVING:**  
Production of basalt fabrics, geomeshes, thermal insulation mats, composites (pipes, rebars, profiles, etc.)
- **BASALT YARN:**  
Production of fabrics, tapes, meshes, cords.
- **CHOPPED BASALT FIBER:**  
As reinforcing filler for fibrous concrete;  
Production of basalt mats, composites.
- **BASALT FABRIC:**  
Production of composites, thermal insulation mats;  
As a filter for cleaning of waste gases;  
As thermal and heat insulation of industrial equipment, furnaces, pipelines, turbines and other hot surfaces.

## FIELDS OF APPLICATION



technical data sheet



# OWN SCIENTIFIC AND PRACTICAL CENTER

In order to develop and implement new types of products and technology, our company has its own scientific and practical center.

Our enterprise is characterized by a high share of innovative products in overall production volume (around 30%).

## THE MOST SIGNIFICANT DEVELOPMENTS:

- ✔ Technology of silica fiber production;
- ✔ Technology of spray-up roving production;
- ✔ Production of basalt fiber and products on its basis.





# CERTIFICATES

**NOTIFIED BODY No. 1488**  
**INSTYTUT TECHNIKI BUDOWLANEJ**  
**CERTIFICATION DEPARTMENT**  
 ul. Piłsudskiego 1, 05-411 Warszawa  
 tel: +48 (22) 57 96 187, +48 (22) 57 96 192, fax: +48 (22) 57 96 288  
 e-mail: cert@itb.pl, www.itb.pl

**CERTIFICATE OF CONFORMITY OF THE FACTORY PRODUCTION CONTROL**  
**1488-CPR-0580/Z**

In compliance with Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 (The Construction Products Regulation or CPR), this certificate applies to the construction product:

**Glass fibre meshes**  
 for reinforcement of cement based renderings  
**SSH-145(100), SSH-160(100) and SSH-160A(100)**

Description of the product – as given in pt. 1 of ETA-18/1110, issued on 11/02/2019  
 (included use – as given in pt. 2 of ETA-18/1110, issued on 11/02/2019)

placed on the market under the name or trade mark of:  
**Joint stock company „Polotsk-Steklovokno”**  
 Stroitel'naya str. 30  
 211400 Polotsk, Vitebsk region  
 Republic of Belarus

and produced in the manufacturing plant:  
**Joint stock company „Polotsk-Steklovokno”**  
 Stroitel'naya str. 30  
 211400 Polotsk, Vitebsk region  
 Republic of Belarus

This certificate attests that all problems concerning the assessment and verification of constancy of performance described in:

**ETA-18/1110, issued on 11/02/2019**  
 and EAD 040016-00-0404

under system 2+ are applied and that the factory production control is assessed to be in conformity with the applicable requirements.

This certificate was first issued on 18.02.2019 and will remain valid as long as neither the ETA, the EAD, the construction product, the AVCP methods, nor the manufacturing conditions in the plant are modified significantly, unless suspended or withdrawn by the notified factory production control certification body.

HEAD of the Certification Department  
*K. Matkowiak*  
 Katarzyna Matkowiak, M.Sc. Eng.  
 Warsaw, 10.02.2019

DIRECTOR of Instytut Techniki Budowlanej  
*Robert Gajda*  
 Robert Gajda, Ph. D.

**INSTYTUT TECHNIKI BUDOWLANEJ**  
**CERTIFICATION DEPARTMENT**  
 ul. Piłsudskiego 1, 05-411 Warszawa, POLAND  
 tel: +48 (22) 57 96 187, +48 (22) 57 96 192, fax: +48 (22) 57 96 288  
 e-mail: cert@itb.pl, www.itb.pl

**CERTIFICATION MARK**

The company:  
**Joint stock company „Polotsk-Steklovokno”**  
 Stroitel'naya str. 30  
 211400 Polotsk, Vitebsk region  
 Republic of Belarus

being the manufacturer of the product:

**Glass fibre meshes**  
 for reinforcement of cement based renderings  
**SSH-145(100), SSH-160(100) and SSH-160A(100)**

is authorized to use  
 the ITB certification mark „ZAKŁADOWA KONTROLA PRODUKCJI”  
 during the period of validity of the certificate no. 1488-CPR-0580/Z

**ZAKŁADOWA KONTROLA PRODUKCJI**

**1488-CPR-0580/Z**

HEAD of the Certification Department  
*K. Matkowiak*  
 Katarzyna Matkowiak, M.Sc. Eng.  
 Warsaw, 10.02.2019

DIRECTOR of Instytut Techniki Budowlanej  
*Robert Gajda*  
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**European Technical Assessment** **ETA-18/1110**  
**of 11/02/2019**

**General part**

<b>Technical Assessment Body issuing the European Technical Assessment</b>	Instytut Techniki Budowlanej
<b>Trade name of the construction product</b>	SSH-145(100), SSH-160(100) and SSH-160A(100) Glass fibre meshes for reinforcement of cement based renderings
<b>Product family to which the construction product belongs</b>	Thermal insulation products. Composite rendering fibre systems
<b>Manufacturer</b>	Joint stock company „Polotsk-Steklovokno” Stroitel'naya street 30, Vitebsk region 211400 Republic of Belarus
<b>Manufacturing plant</b>	Joint stock company „Polotsk-Steklovokno” Stroitel'naya street 30, Vitebsk region 211400 Republic of Belarus
<b>This European Technical Assessment contains</b>	8 pages
<b>This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of</b>	European Assessment Document (EAD), EAD 040016-00-0404 "Glass fibre meshes for reinforcement of cement based renderings"





# THANK YOU FOR YOUR ATTENTION

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