

A stylized green leaf logo consisting of several overlapping leaf shapes within a semi-circular arc, all in shades of green. The background features abstract green geometric shapes on the left and right sides.

«LOTOS» Ltd

We give heat
and silence

PRODUCTION OF HEAT-INSULATING AND SOUND-PROOF MATERIALS FROM BASALT SUPERTHIN FIBRE

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In 1991 in the city of Syktyvkar “Lotos” Ltd. factory construction began. At construction and purchases of the equipment all advanced technologies which was earlier only in nuclear power, aircraft industry and shipbuilding were used.

At the end of 1992 the first production was made.

Now “Lotos” Ltd. - the successful enterprise which increases every year quantity and the product range.



Production of “Lotos” Ltd. is made of basalt superthin fiber (BSTV) which turns out as a result of fusion of crushed trap rock.


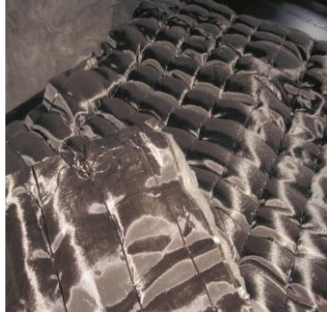


These are very thin (no more than 3 microns) and long threads.

Thanks to structure of BSTV allows to make products without binding substance. These thinnest fibers have a huge number of the minute pores which are filled with air that interferes with the radiation of heat and sound penetration on a surface.

Basalt superthin fiber and product from it:

- environmentally friendly (doesn't contain phenols)
- durable, resistant to vibrations;
- nonflammable, fire-resistant, fireproof;
- chemically neutral, nontoxic;
- resistant in relation to microorganisms and rodents, doesn't decay;
- doesn't increase the diffusion resistance of buildings (excellent vapor permeability);
- possesses low hygroscopicity (doesn't absorb moisture from air);

TYPES OF PRODUCTS

<u>BASALT FELTS</u>	<u>HEAT-INSULATING BASALT MATS (piercing)</u>	<u>HEAT-INSULATING BASALT MATS (with lining)</u>	<u>HEAT AND SOUND INSULATING BASALT MATS</u>	<u>NOISE-ABSORBING BASALT MATS</u>
<p>the fibrous material consisting of chaotically located fibers with a diameter no more than 3 microns which are fastened among themselves by forces of natural coupling.</p> <p>Type: BSTVst, BSTVsp TOR 5761-002-12881589-03</p>	<p>are made on the basis of BTSVst and are stitched by vitreous fiber.</p> <p>Type: MTB TOR 5769163-004-12881589-03</p>	<p>are made on the basis of BTSVst and are revetted with fabric (glass, basalt, silica) or the metal gauze.</p> <p>Type: MTBS, MTBK, MTBB, MTBM TOR 5769163-004-12881589-03</p>	<p>are made from BSTVsp, are revetted from all directions with glass, basalt or silica fabric. The corresponding threads stitch them.</p> <p>Type: ATM-10, ATM-10k, ATM-10b TOR 5769163-004-12881589-03</p>	<p>are made from BSTVsp, are revetted from all directions with fiber glass fabric. The corresponding threads stitch them.</p> <p>Type: BZM-L TOR 576990-003-12881589-01</p>
				
<p>Size: Length – 2000 mm Width – 1000 mm Thickness - 125 mm</p>	<p>Size: Length – 1000 - 6000 mm Width – 500 - 1000 mm Thickness - 50 - 100 mm</p>	<p>Size: Length – 1000 - 6000 mm Width – 500 - 1000 mm Thickness - 50 - 100 mm</p>	<p>Size: Length – 1100 mm Width – 600 mm Thickness - 10 - 50 mm</p>	<p>Size: linear parameters of mats are defined together with the customer.</p>

Production is certified on fire safety, on compliance to requirements Sea and River to Registers of the Russian Federation and as has the certificate "NIKIMT-Atomstroy" for application on objects of the nuclear industry



QUALITATIVE CHARACTERISTICS OF PRODUCTION

Characteristics	Unit of measurement	Definitions			
		BSTVst, BSTVsp	MTB	MTBS/ MTBK/ MTBB/ MTBM	ATM-10/ ATM-10k / ATM-10b
Operating temperature	° C	- 269 ÷ +700	- 269 ÷ +700	-60 ÷ +450 / -170 ÷ +1000 / -260 ÷ +600 / - 269 ÷ +700	-60 ÷ +450 / -170 ÷ +1000 / -260 ÷ +600 /
Density	Kr/m3	18	23-60	23-60	41-91
Thermal conductivity with 25 ° C	Bт/(M*K)	0,042	0,040 ÷ 0,034	0,040 ÷ 0,034	0,034
Humidity, no more than	%	2	2	2	2
Consolidation temperature	° C	1040	1040	1040	1040
Water resistance	%	96,4	96,4	96,4	96,4

CHARACTERISTICS OF SOUND-ABSORBING MATS – BZM-L

Frequency range	Normal coefficient of a sound absorption at a thickness of BZM-L, mm		
	50	100	200
Low-frequency 100-250 Hz	0,08-0,46	0,21-0,98	0,70-0,66
Mid-frequency 250-1000 Hz	0,46-0,73	0,98-0,80	0,66-0,77
High-frequency 1000-2000 Hz	0,73-0,86	0,80-0,85	0,77-0,83

Products from BSTV are used as in construction for warming and noise suppression in designs of protections and overlappings, and for a noise isolation and thermal insulation of units, equipment, pipelines in the machine-building, gas industry, oil industry, nuclear branch, energy production and shipbuilding.





LOTOS

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