

Introduction:

Basalt is a dark grey to black, closely centralgranular, volcanic petro. The Basalt fibre is a 100% inorganic, mineral, continuous filament, which were released first in 1995 for the civilian use. The size of the diameter of 11.0 μm guarantees the best compromise in stability, durability and costs. Moreover the fibre has a natural gold-brown colour, which can be used well for decorative purposes. Basalt can be used both for electrotechnical applications and fire protection in the production of cars, airplanes, ships and household appliances. Basalt combines can be used for the transport of corrosive liquids, whereby the same plants as for fibre glass tubes can be used for it.

Universal Properties:

- low moisture content (10 times lower than with glass fibre)
- high stability in relation to aggressive media
- good adhesion to epoxy bonding agents
- not inflammable raw material
- acid and alkali-steadily
- outstanding mechanical firmness
- outstanding chemical stability
- stability of the dielectric and mechanical characteristics with durable enterprise under inconsistent conditions
- improves group characteristics opposite e-glass
- more economically than high speed fibers e.g. S -, R-glass or Carbon

Physical Properties:

Diameter [μm]	11,0
Tensile strength [mN/tex]	433
E-Modulus [GPa]	91 - 110
Lineare density [tex]	121
Inflammability (LOI) [%]	0,4
Thermal range of application [$^{\circ}\text{C}$]	
min.	-260
max. pressured	+450
max. unpressured	+700
working temperature as flame-border	+1200
Melting point [$^{\circ}\text{C}$]	1450
Moisture absorption [%]	$\leq 0,1$
Linear coefficient of expansion [$\times 10^{-7}/\text{K}$]	5,5
Thermal conductance [W/m.K]	1,67
Weight loss [%] after 3 h cooking in:	
H ₂ O	99,6
0,5N NaOH	93,4
2N NaOH	65,4 – 77,3
2N H ₂ SO ₄	66,4 – 98,5

[These explanatory notes are based on information provided by our suppliers and therefore are no legally binding statements.]

SILTEX Flecht- & Isoliertechnologie Holzmüller GmbH & Co.KG
 Palmstr. 27 , D-84387 Julbach
 Tel. +49-8571-922 970 , Fax: +49-8571-922 9722
 Internet: www.siltex.de , email: siltex@siltex.de

