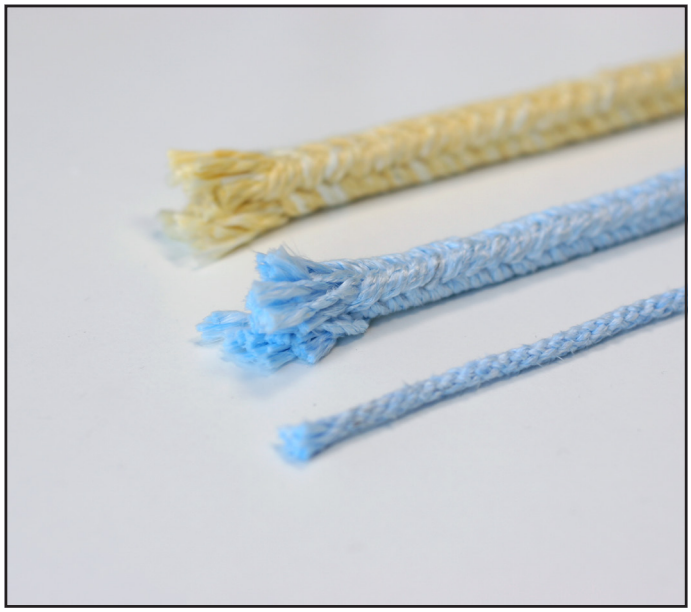
RUHRLAND
STOPFBÜCHSEN PACKUNG GMBH

MADE IN GERMANY

MATERIAL DATA SHEET

HT-GLASS-FIBER



- Heat and refrigeration resistant
- High chemical resistance
- Resistant to swelling
- Harmless to health (fiber diameter ≥6 µm)

COMPOSITION // UTILIZATION

HT glass-fiber products consist of calcium-silicate fibers and are manufactured of textured and twisted filament yarns.

The insulating effect and abrasion resistance are considerably improved by the texturing and additional twisting. HT products are manufactured exclusively of yarns with a filament diameter of ≥6 µm. They are thus outside of the range of health-endangering fibers. Investigations carried out by TH Aachen and BIA (Professional Institute for Occupational Safety) verify that HT products are harmless to health.

PROPERTIES

- High abrasion resistance
- Good insulating characteristic through low heat storage capacity
- Very good electrical insulating characteristics
- Resistant against oils, greases, solvents and most acids & caustic solutions (excluded phosphoric acid and hydrofluoric acid, as well as strong caustic solutions)
- Easy to coat and impregnate
- Good cutting strength
- Rot-resistant

CHEMICAL COMPOSITION

SiO_2	54-62 %
CaO	17-25 %
AL_2O_3	9-15 %
MgO	0-4 %
ZnO	0-5 %
TiO	0-4 %

Residue: Traces of Fe_2O_3 // F_2 // R_2O // K_2O // Na_2O // MnO // P_2O_5

PHYSICAL CHARACTERISTICS

MATERIAL DENSITY (FIBERS)	2.72 g/cm³
TENSILE STRENGTH	3400 - 3700 N/mm²
BREAKING ELONGATION	3.3 - 4.8%
TEMPERATURE RESISTANCE [1)]	750°C
SOFTENING TEMPERATURE (ASTM C338)	916°C
COMBUSTION CHARACTERISTICS	non-inflammable
MOISTURE (105°C/1H)	≤ 1%
IGNITION LOSS (750°C/1H)	≤ 2%
SHRINKAGE (750°C/24H)	≤ 2%
SMOOTH	≤ 2%

[1)] With the evaluation of the temperature resistance, the influence of the medium and the type of stressing are of decisive importance.

Due to these characteristics, HT products have proved themselves to be exceptional in the heat-protection and insulating area in case of mechanical stressing.