



MATERIAL DATA SHEET

E-GLASS



PHYSICAL CHARACTERISTICS

DENSITY	2,6 g/cm ³
TENSILE STRENGTH	3400 - 3700 N/mm ²
BREAKING ELONGATION	3,3 - 4,8 %
COEFFICIENT OF THERMAL EXPANSION	5
THERMAL CONDUCTIVITY COEFFICIENT TEXTILES	0,85 - 1,0 W/(m*K)
RELATIVE PERMITTIVITY	5,8 - 6,7
ELECTRIC SPEC. RESISTANCE ('Ω*cm {20°C})	10 ¹⁵
ELECTRIC SPEC. RESISTANCE ('Ω*cm {250°C})	10 ¹³
ELECTRIC SPEC. RESISTANCE ('Ω*cm {450°C})	10 ¹¹
TEMP. RESISTANCE *	550 °C
SOFTENING TEMP.	840 °C

*With the evaluation of the temperature resistance, the influence of the medium and the type of stressing are of decisive importance.

COMPOSITION // UTILIZATION

E-glass: Aluminum boron silicate
Static sealing for high temperatures.

CHEMICAL RESISTANCE

The thermoglass products on the basis of E-glass are resistant against oils, grease, solvents, air, vapors, gases, and organic acids

In case of the influence of inorganic acids - excluding hydrofluoric acid and phosphoric acid - products of C-glass are to be used. In accordance with DIN 12111, materials are subdivided into hydrolytic classes according to their resistance against water.

E-glass was classified into Class I (best class).

E-glass is characterized by a high load-carrying capacity and excellent electrical-insulating properties. E-glass products are produced both from continuous-fiber yarn and from textured and twisted yarn. The texturing considerably improves the insulation characteristics of the finished products.

Since all parameters indicated in this catalog represent only rough values concerning characteristics, specification and applications, and can influence each other mutually, the specific application in each case should not be carried out without independent testing and evaluation. All technical information and recommendations are based on experience acquired to date.

CHEMICAL COMPOSITION

SiO ₂	approx. 52 – 56 %
CaO	approx. 16 – 25 %
Al ₂ O ₃	approx. 12 – 16 %
B ₂ O ₃	approx. 5 – 10 %
MgO	approx. 0 – 5 %

Rest: Traces of TiO₂ // Fe₂O₃ // Cr₂O₃ // F₂ // R₂O // K₂O // Na₂O // MnO // P₂O₅ // SO₂

Tolerances reserved!

Errors on the selection of sealing can lead to damage. Specifications concerning characteristics, specification and applications are implemented subject to unannounced future changes. RUHRLAND STOPFBÜCHSEN PACKUNG GmbH does not assume any liability of any type.