Lumiglas®

Ultra-high pressure aluminosilicate glass

Aluminum silicate glass is a kind of alkali-free pressure-resistant glass. The glass mirror cast by alkali-free aluminum silicate glass excellent high-pressure resistance performance, which is a special glass for various boilers, high-pressure reactors, petrochemical and submarines. It has good chemical stability, electrical insulation flexural strength, and high-pressure resistance. Its flexural strength is 2-3 times that of borosilicate glass. Our company is a highly specialized of aluminum silicate glass in China! Aluminum silicate glass is composed of RO-Al203-Si02, where RO represents divalent metal ox such as magnesium oxide, calcium oxide, barium oxide, and zinc oxide. Since the components do not contain alkali metal ions, it is named alkali-free silicate glass.

Product performance index:

Bending strength: 260~300 Mpa
Coefficient of thermal expansion: 42~46*10^{-7}/C
Product density: 2.62 g/cm^3
Softening temperature: >920℃
Service temperature: ≤375℃
Thermal shock temperature: ≤300℃
Minimum service temperature: -196℃
Maximum service temperature: 500℃
Glass temperature Tg(℃): 715
Sagging temperature TS(℃): 791
Young's modulus E(10^7Pa): 8450
Poisson's ratio μ: 0.24
Transparency: 400~2500nm≥90%(5mm)
Refractive index: 1.5472
Explosion-proof performance:
10mm≥10J, 15mm≥20J, 20mm≥40J.
Pressure resistance performance: 1.0-70.0 Mpa
Executive standard: JC/T891-2016

Common thickness:
12.7mm, 16mm, 17mm, 19mm, 21mm
(various non-standard thicknesses can be customized)

Common size:
80*24*17 80*4*21 108*24*17 108*24*21 118*24*21 130*24*21 130*26*19
115*34*17 130*4*17 140*34*17 160*34*17 165*34*17 190*34*17 218*34*17
220*34*17 250*34*17 280*34*17 320*34*17 340*34*7 370*34*17 400*34*17
Other non-standard sizes are produced according to customer requirements