



KOHLHAUER® NOISE BARRIERS – QUALITY OF LIFE

KOHLHAUER® SILICATE GLASS

Austria · Belgium · China · Czech Republic · France · Germany · Greece · Hong Kong · Italy · Korea · Latvia · Netherlands · Poland · Romania · Russia · Slovakia · Spain · Sweden · Switzerland · United Kingdom

SECURITY GLASS <

Transparent sheet material
Different strengths
Economical



KOHLHAUER **SCORSA**® – UTMOST FUNCTIONALITY

KOHLHAUER® SILICATE GLASS (SINGLE-PANE SECURITY GLASS)

Single-pane security glass is the upcoming noise protection material for transparent noise barriers. Being the most economical choice, it meets all requirements to ensure sustainable noise protection.

Solutions for noise protection with best prospects

Due to its short delivery times, its constant price levels and its world wide availability, KOHLHAUER® single-pane security glass is a convenient alternative to other transparent materials. Its properties fulfill all necessary requirements according EN-1793, EN-1794 and German ZTV-Lsw 06 so that single-pane security glass can help reducing noise barrier costs significantly. The glass is a specially treated single-pane that during the manufacturing process is heated to 600°C and then immediately cooled down with chilled air. Thus the surface of the glass cools down much faster than the core which results in inner tensile stress and compression stress on the material's surfaces. This makes the glass extremely resistant to impact and shock as well as to variations in temperature. If the glass is shattered, it breaks into many small bits with rounded edges. Single-pane security glass has been used for decades in the automotive industry.

Benefits

- High degree of transparency
- Fulfills requirements of EN-1793, EN-1794 and German ZTV-Lsw 06
- High degree of chemical resistance
- Increased safety by small bit breakage
- Weather resistant, impact resistant
- Excellent sound insulation properties
- Withstands high variations in temperature
- Suitable for KOHLHAUER **SCORSA**® FRAME systems



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The characteristics of single-pane security glass sheets have been tested and proven.
The following tables display the properties of the material.

MECHANICAL PROPERTIES	VALUE	OTHER PHYSICAL PROPERTIES	VALUE
Yield stress	>60 Mpa	Thermal conductivity	0.8 W/m°C
Elongation at break	>17%	Thermal coefficient of expansion	0.09x 10 ⁻⁶ mm/m°C
Elasticity modulus	70000 Mpa		
Flexural strengths	ca. 120 Mpa		

KOHLHAUER **SCORSA**® with Single-Pane security glass as sheet material is a complete high-quality noise barrier system that fulfills all requirements and expectations, as the following data demonstrates. "Frame-R" system is designed for use along roads.

KOHLHAUER SCORSA® WITH SINGLE-PANE SECURITY GLASS	"FRAME-R" 12 mm*
Format	3960 x 1000 mm
Airborne sound insulation	DL _R = 29 dB (group B3)
Element dry weight	1.20 kN
Normal (90°) load (due to wind and static)	1.02 kN/m²
Normal (90°) load (due to snow clearance)	15 kN/(2x2 m)
Impact of stones	Fulfilled
Resistance to brushfire	Class 1
Estimated service lifetime	> 30 years

* Different sheet thicknesses on request





R. Kohlhauer GmbH
Draisstraße 2
76571 Gaggenau
Phone: +49 - 72 25/97 57 - 0
Fax: +49 - 72 25/97 57 - 26
E-Mail: info@kohlhauer.com

WWW.KOHLHAUER.COM

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all-round Grid-Insulation-
System (GIS) with many
design variations.



The plantable noise
barrier - eco-friendly,
sustainable and high
functional.



Double benefit: Noise barrier
combined with sustainable
power generation through
solar technology.

