

# TECHNICAL DATASHEET

## Steni Nature M / Steni Nature Glass M

MATERIAL DATA (23 °C RF 45-60 %):		Value	Unit	Reference	
Thickness		8,0 ± 0,6	mm	STENI quality system	
Weight		15,0 ± 10 %	kg/m <sup>2</sup>	STENI quality system	
Weight Steni Nature Glass SN 604		16,5 ± 10 %	kg/m <sup>2</sup>	STENI quality system	
Weight Steni Nature Glass SN 605		14,0 ± 10 %	kg/m <sup>2</sup>	STENI quality system	
Density		1960 ± 3 %	kg/m <sup>3</sup>	STENI quality system	
Length and width		± 2	mm	STENI quality system	
Edge straightness		± 1	mm	STENI quality system	
Drilling position tolerance		± 5	mm	STENI quality system	
Diagonal deviation		≤ 3	mm	STENI quality system	
Angular deviation on L and U elements (100mm from corner)		± 3°	deg	STENI quality system	
<b>SURFACE:</b>					
Front side of panel: (Untreated natural aggregate)		Aggregate size	3,0 – 5,0	mm	STENI quality system
Front side quality: Uniform surface expression without craters and lack of aggregate)		<i>Product for outside use;</i> (5 m distance 90° viewing with normal daylight without sun) <i>Product for inside use;</i> (3 m distance 90° viewing with normal illumination)		Not visible	STENI quality system
Edge of panel:		<i>Untreated;</i> (small defects adjoining to surface)		Accepted	STENI quality system
Back side of panel is untreated. Minor defects.		Accepted			STENI quality system
<b>PHYSICAL DATA:</b>					
Flexural strength		≥ 30	N/mm <sup>2</sup>	CSTB method	
Elasticity module		≥ 5000	N/mm <sup>2</sup>	EN ISO 178	
Impact strength		≥ 17	kJ/m <sup>2</sup>	ISO 172-82	
Tensile strength (length and width direction)		≥ 13	N/mm <sup>2</sup>	ISO/R 527-66	
Critical radius		< 3,5	m		
Resistance to strong impact		Maximum height of ball drop	3,5	m	NT Build 066
Resistance of pull through panel (drilled hole d=5,5mm) Steni fixing screw (4,0 * 28/ 33)		1,0		kN	EN 320:1993
Emission After 28 days (23 °C 50 % RH)		TVOC Formaldehyde Σ VOC carcinogenic	540 3 <1	µg/(m <sup>2</sup> h)	EN ISO 16000-9:2006
Thermal conductivity λ <sub>p</sub>		0,55		W/(m K)	SINTEF NBI
<b>THERMAL PROPERTIES:</b>					
Dimensional stability. Cumulative change max		0,04		%	NS EN 438-2:2005, part 18
Temperature expansion (-20 °C to +65 °C )		0,021- 0,026		mm/(m K)	SINTEF NBI
Water vapor resistance		30 · 10 <sup>10</sup>		(m <sup>2</sup> sPa)/kg	ASTM E 96-66
Water vapor resistance S <sub>d</sub>		58,5		m	SINTEF NBI
Permeability of water vapour		33 · 10 <sup>-13</sup>		kg/(m <sup>2</sup> s Pa)	ASTM E 96-66
Water absorption 1 m deep: (25 °C 100% RH)		After 24 hours After 28 days	ca. 0,5 ca. 2,0	%	ASTM D-570
Frost resistance		> 300		Cycle	SINTEF NBI
<b>FIRE RESISTANCE:</b>					
Used as ventilated facade panel (surface)		B-s1,d0		Euro Class	EN 13501-1
<b>ENVIRONMENTAL:</b>					
Global warming potential		18		CO <sub>2</sub> ekv/m <sup>2</sup>	NEPD-2580-1307-EN
Total energy use		428		MJ/m <sup>2</sup>	NEPD-2580-1307-EN