

SHIPRADE

S-SOLO FR

S-Solo FR Technical Data Sheet (1)

Characteristics	Test Method	Tested Value	Required Value ⁽²⁾
Thickness	EN 438-2 Section 5	According to the required thickness	$0.8 \leq t \leq 1.0 \text{ mm} : \pm 0.10 \text{ mm}$ $1.0 < t < 2.0 \text{ mm} : \pm 0.15 \text{ mm}$ $2.0 \leq t < 3.0 \text{ mm} : \pm 0.20 \text{ mm}$ $3.0 \leq t < 5.0 \text{ mm} : \pm 0.3 \text{ mm}$ $5.0 \leq t < 8.0 \text{ mm} : \pm 0.4 \text{ mm}$ $8.0 \leq t \leq 12.0 \text{ mm} : \pm 0.5 \text{ mm}$ $12.0 \leq t < 16.0 \text{ mm} : \pm 0.6 \text{ mm}$ $16.0 \leq t < 20.0 \text{ mm} : \pm 0.7 \text{ mm}$ $20.0 \leq t < 25.0 \text{ mm} : \pm 0.8 \text{ mm}$ $25.0 \leq t : \text{According to Agreement Customer/Producer}$
Density	ISO 1183 - 1	1.4 g/cm ³	Min. 1.35 g/cm ³
Wear Resistance	EN 438-2 section 10 CGF ⁽¹⁾	IP = 185 Rev. Wear Value = 485 Rev.	Initial Point ≥ 150 Rev. Wear Value ≥ 350 Rev.
Scratch Resistance	EN 438-2 Section 25 CGF	3 N 4 N	Flat Surface Min. 2 N Textured Surface Min. 3 N
Impact Resistance	EN 438-2 Big Ball Section 21 CGF $2.0 \leq t < 6.0 \text{ mm}$ $t \geq 6.0 \text{ mm}$	No Crack, 4.5 mm No Crack, 3.5 mm	1400 mm Height: No Crack, 10 mm Max. 1800 mm Height: No Crack, 10 mm Max.
Resistance to Crazeing 20 Hours @ 80°C	EN 438-2 Section 24 CGF	Level 4	Min. Level 4
Resistance to Dry Heat at 180°C	EN 438-2 Section 16 CGF Glossy Surface Finish Other Surface Finish	Level 4 Level 5	Min. Level 3 Min. Level 4
Resistance to Water Vapor	EN 438-2 Section 14 CGF Glossy Surface Finish Other Surface Finish	Level 4 Level 5	Min. Level 3 Min. Level 4

S-Solo FR Technical Data Sheet (2)

Characteristics	Test Method	Tested Value	Required Value
Resistance to Boiling Water	EN 438-2 Section 12 CGF		
	$2.0 \leq t < 5.0$ mm	2.2% 3.1%	Max. 5% in Weight Max. 6% in Thickness
	$t \geq 5.0$ mm	0.55% 0.65%	Max. 2% in Weight Max. 2% in Thickness
	Glossy Surface Finish	Level 4	Min. Level 3
	Other Surface Finish	Level 5	Min. Level 4
Resistance to Staining	EN 438-2 Section 26 CGF		
	Group 1 + 2	Level 5	Min. Level 5
	Group 3	Level 5	Min. Level 4
Durability of Surface Finish and Adhesion of Surfacing and Edging Materials	BS 6222 : 1999	Level 5 Pass	Min. Rating 4
Flatness	EN 438-2 section 9 CGS		
	$2.0 \leq t < 6.0$ mm	1.23 mm	Max. 8 mm / 1 m Length
	$6.0 \leq t < 10.0$ mm	1.46 mm	Max. 5 mm / 1 m Length
	$t \geq 10.0$ mm	1.87 mm	Max. 3 mm / 1 m Length
Light Fastness	EN 438-2 section 27 CGS Grey Scale	Level 5	Min. Level 4
High Temp. Stability 70°C	EN 438-2 section 17 CGS		
	$2.0 \leq t \leq 5.0$ mm	L: 0.22 mm W: 0.35 mm	L: Max. 0.4 mm W: Max. 0.8 mm
	$t \geq 5.0$ mm	L: 0.18 mm W: 0.23 mm	L: Max. 0.3 mm W: Max. 0.6 mm
Fire Classification⁽³⁾	EN 13501-1		
	6.0 mm CGF	B s2 d0 ⁽⁴⁾	B s2 d0
	8.0 mm CGF	B s1 d0 ⁽⁴⁾	B s2 d0

S-Solo FR Technical Data Sheet (3)

Tensile Strength	EN ISO 527 – 2 CGF	85 MPa	Min. 60 MPa
Flexural Strength	EN ISO 178 CGF	114 MPa	Min. 80 MPa
Flexural Modulus	EN ISO 178 CGF	16,522 MPa	Min. 9000 MPa

Remarks:

- (1) CGF = Compact Grade Fire Retardant Laminate
- (2) Required values based on 438-4
- (3) FR Grade available according to customer demand
- (4) Test report available upon customer request