

 **SHIPRADE**
S-alu HPL/CPL®

S-alu HPL / CPL Technical Data (1)

Characteristics	Test Method	Required Value
Thickness	EN 438-2 section 5	$0.5 \leq t \leq 1.0 \text{ mm} : \pm 0.10 \text{ mm}$ $1.0 < t < 2.0 \text{ mm} : \pm 0.15 \text{ mm}$ $2.0 \leq t < 3.0 \text{ mm} : \pm 0.20 \text{ mm}$ $3.0 \leq t < 5.0 \text{ mm} : \pm 0.3 \text{ mm}$ $5.0 \leq t < 8.0 \text{ mm} : \pm 0.4 \text{ mm}$ $8.0 \leq t < 12.0 \text{ mm} : \pm 0.5 \text{ mm}$ $12.0 \leq t < 16.0 \text{ mm} : \pm 0.6 \text{ mm}$ $16.0 \leq t < 20.0 \text{ mm} : \pm 0.7 \text{ mm}$ $20.0 \leq t < 25.0 \text{ mm} : \pm 0.8 \text{ mm}$ $25.0 \leq t : \text{According To Agreement customer / producer}$
Density	ISO 1183 - 1	Min. 1.35 gr/cm ³
Scratch Resistance	EN 438-2 section 25 VG , VGF, CGS , CGF	Min. 2 N
	HGS, HGF	Min. 3 N
Impact Resistance	EN 438-2 Small Ball section 20 VGS , VGF, CGS, CGF HGS, HGF	Min. 15 N Min. 20 N
	Big Ball section 21 VGS, VGF, CGS, CGF	Drop Height Min 600 mm Indent Diameter Max 10 mm
	HGS , HGF	Drop Height Min 800 mm Indent Diameter Max 10 mm
Crack Resistance	EN 438-2 section 23 HGS, HGF, VGS , VGF, CGS , CGF	Min. 4 N
Resistance to Dry Heat at 180°C	EN 438-2 section 16 HGS, HGF, VGS, VGF, CGS, CGF	Min. level 4
Resistance to Water Vapor	EN 438-2 section 14 HGS , HGF , VGS , VGF , CGS , CGF	Min. level 4
Resistance to Boiling Water	EN 438-2 section 12 HGS, HGF, VGS, VGF, CGS, CGF	Min. level 4

Characteristics	Test Method	Required Value
Resistance to Cigarette Burn	EN 438-2 section 30 HGS , HGF , VGS , VGF , CGS , CGF	Min. level 3
Resistance to Staining	EN 438-2 section 26 HGS , HGF , VGS , VGF , CGS , CGF Group 1 + 2 Group 3	Min.level 5 Min.level 4
Flatness	EN 438-2 section 9 HGS , HGF , VGS , VGF CGS , CGF $2.0 \leq t < 6.0$ mm $6.0 \leq t < 10.0$ mm $t \geq 10.0$ mm	Max. 60 mm / 1 M uzunluk Max. 8 mm / 1 M length Max. 5 mm / 1 M length Max. 3 mm / 1 M length

Remarks :

- @ HGS = Horizontal Grade Standard Laminate
- @ HGF = Horizontal Grade Flame Retardant Laminate
- @ VGS = Vertical Grade Standard Laminate
- @ VGF = Vertical Grade Flame Retardant Laminate
- @ CGS = Compact Grade Standard Laminate
- @ CGF = Compact Grade Flame Retardant Grade_