

Properties	Test Method	Property or attribute	Unit	Result
<b>SURFACE QUALITY</b>				
Surface Quality	EN 438-2.4	Spots, dirt and similar surface defects	mm <sup>2</sup> /m <sup>2</sup>	≤ 1
		Fibers, hair and scratches	mm/m <sup>2</sup>	≤ 10
<b>DIMENSIONAL TOLERANCES</b>				
Dimensional Tolerances	EN 438-2.5	Thickness tolerance	mm	0.9 ± 0.10
	EN 438-2.6	Length and width	mm	+ 10 / 0
	EN 438-2.7	Straightness of edge	mm/m	≤ 1.5
	EN 438-2.8	Squareness	mm/m	≤ 1.5
	EN 438-2.9	Flatness	mm/m	≤ 60
<b>GENERAL PROPERTIES</b>				
Resistance to surface wear	EN 438-2.10	Initial Point	Revolutions	≥ 200
Resistance to immersion in boiling water	EN 438-2.12	Appearance	Rating	≥ 4
Resistance to water vapor	EN 438-2.14	Appearance	Rating	≥ 4
Resistance to dry heat (180C)	EN 438-2.16	Appearance	Rating	≥ 4
Resistance to wet heat (100C)	EN 12721:1997	Appearance	Rating	≥ 4
Dimensional stability at high temperatures	EN 438-2.17	Cumulative dimensional change	Longitudinal %	≤ 0.55
		Cumulative dimensional change	Transversal %	≤ 1.05
Resistance to impact with small diameter ball	EN 438-2.20	Spring force	N	≥ 21
Resistance to impact with large diameter ball	EN 438-2.21	Drop height	mm	≥ 1000
		Indentation diameter	mm	≤ 10
Resistance to cracking	EN 438-2.23	Appearance	Rating	≥ 4
Resistance to scratching	EN 438-2.25	Appearance	Rating	≥ 4
Resistance to staining	EN 438-2.26	Appearance - Group 1 and 2	Rating	5
		Appearance - Group 3	Rating	≥ 4
Light fastness (xenon-arc)	EN 438-2.27	Contrast	Grey scale rating	≥ 4
Gloss Level	ISO 2813	Surface specular reflectance	Gloss unit	5-15 (measured at 85°)
Electrostatic property	EN 61340-4-1	Surface electrical resistance:	ohms	7.76 x 10 <sup>11</sup>
		Point to point resistance	ohms	1.23 x 10 <sup>11</sup>
		Vertical resistance		
Density	EN ISO 1183	Density	g/cm <sup>3</sup>	≥ 1.35
Resistance to micro scratches	EN 438-2.30	Visual assessment	Rating	5

## REACTION TO FIRE

Reaction to Fire – Standard Version	ASTM E84-20	Flame spread and smoke developed	Classification	Class B
Reaction to Fire – FR Version	ASTM E84-20	Flame spread and smoke developed	Classification	Class A

The Reaction to Fire of RAUVISIO noir is related to the final composite panel where the laminate is bonded to a suitable substrate. The results may be different depending on the substrate, glue, and bonding techniques. The Reaction to Fire testing of the composite panel is the responsibility of the panel manufacturer. The results shown are from tests of the laminate only.

## OTHER PROPERTIES

Acids resistance	SEFA 8-PL-2016 Section 8.1	Chemical Spot Test	pass/not pass	pass
Formaldehyde Emissions	EN 13986	Formaldehyde emission rating	rating	E1
Hygiene (Suitability for Food Service)	NSF	NSF/ANSI 35	pass/not pass	pass
VOC emissions	AFNOR NF EN ISO 16000-9	Classification	Rating	A+
		Formaldehyde	mg/m <sup>3</sup>	≤ 0.002
		Acetaldehyde	mg/m <sup>3</sup>	≤ 0.002
		Toluene	mg/m <sup>3</sup>	≤ 0.002
		Tetrachloroethylene	mg/m <sup>3</sup>	≤ 0.002
		Xylene	mg/m <sup>3</sup>	≤ 0.002
		Trimethylbenzene	mg/m <sup>3</sup>	≤ 0.002
		TVOC	mg/m <sup>3</sup>	≤ 0.1
Contact with food - overall migration	EN 1186-3	3% acetic acid 24h @ 40C	mg/dm <sup>2</sup>	0.5
	EN 1186-3	50% ethanol 24h @ 40C		0.6
	EN 1186-14	95% ethanol 24h @ 40C		1.0
	EN 1186-14	isooctane 24h @ 40C		< 0.1
Contact with food - formaldehyde specific migration	EN 13130-23	3% acetic acid 24h @ 40C	mg/kg	< 15
Evaluation of micro-organisms action	JIS Z 2801:2010	Antimicrobial activity after 24h at 35C	bacterial viability: log reduction reduction%	>3.6 >99.975
Phenol Free	EN ISO 16000-9	Phenol content in resin		Phenol Free