

DEK STANDARD ENGINEERING INSTRUCTION

Title

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High Pressure Laminate (HPL) Black

DSM 3.9.9

GENERAL

High pressure compact laminate in accordance with BS 438-4:2005.

Inherently antibacterial and highly resistant to a large variety of chemicals.

Impact and Abrasion resistant

Easy clean surface.

DESIGN GUIDELINES

Sharp corners are very brittle and will chip the first layer of laminate. It is recommended to put a small radius ($\geq R2$) on all external sharp corners.

This material is only finished on one side, reverse side is printed with manufacturer logos.

TYPICAL APPLICATIONS

Typically used for worktops and cabinets in lab applications.

ASM Application:

Coverset panels where wear resistance, chemical resistance and an easy clean surface are required.

MANUFACTURER & GRADE

Trespa TopLab PLUS

COLOUR

Black (T90.0.0) Crystal Matt

Single Sided Decorative

Black Core

AVAILABLE SHEET SIZES

	THICKNESSES				SIZES	
	13 mm ($\approx 1/2$ in)	16 mm ($\approx 5/8$ in)	20 mm ($\approx 3/4$ in)	25 mm (≈ 1 in)	2550 x 1860 mm ($\approx 100 \times 73$ inch)	3050 x 1530 mm ($\approx 120 \times 60$ inch)
TOPLAB® PLUS	•	•	•	•	•	•

ALTERNATIVES

Alternative HPL materials are allowed only with the express written permission of ASM PT. Please email details of your request to engineering_enquiries@asmpt.com

Issue	01	02	03	04	05	06	07	08
DCR	44443							

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Properties	Test method	Property or attribute	Unit	Result 
				Grades CGS
				Standard: EN 438-4
				Colour/Decor: All 
Surface quality				
Surface quality	EN 438-2 : 4	Spots, dirt, similar surface defects	mm ² /m ²	≤ 1
			in ² /ft ²	≤ 0.0001
		Fibres, hairs & scratches	mm/m ²	≤ 10
Dimensional tolerances				
Dimensional tolerances	EN 438-2 : 5	Thickness	mm	13.0 ≤ t < 16.0: +/- 0.60
				16.0 ≤ t < 20.0: +/- 0.70
				20.0 < t ≤ 25.0: +/- 0.80
			in	0.4724 ≤ t < 0.6299 : +/- 0.0236
				0.6299 ≤ t < 0.7874 : +/- 0.0275
				0.7874 ≤ t ≤ 0.9842 : +/- 0.0315
	EN 438-2 : 9	Flatness	mm/m	≤ 2
			in/ft	≤ 0.024
	EN 438-2 : 6	Length & width	mm	+ 5 / - 0
			in	+ 0.1968 / - 0
	EN 438-2 : 7	Straightness of edges	mm/m	≤ 1
			in/ft	≤ 0.012
Trespa standard	Squareness	mm	2550 x 1860 : difference between diagonals (x-y) ≤ 4	
			3050 x 1530 : difference between diagonals (x-y) ≤ 4	
		in	100.39 x 73.23 : difference between diagonals (x-y) ≤ 0.1575	
Physical properties				
Resistance to surface wear	EN 438-2 : 10	Wear resistance - Revolutions (min)	Initial point	≥ 150
			Wear value	≥ 200
Resistance to impact by large diameter ball	EN 438-2 : 21	Indentation diameter - δ ≤ 1 mm with drop height 1.8m	mm	≤ 10
Resistance to scratching	EN 438-2 : 25	Force	Rating (min)	≥ 4
Resistance to dry heat (160° C / 320° F)	EN 438-2 : 16	Appearance	Rating (min)	≥ 4
Resistance to wet heat (100° C / 212° F)	EN 12721	Appearance	Rating (min)	≥ 4
		Mass increase [% max]	t ≥ 6 mm	≤ 1
		Thickness increase [% max]	t > 6 mm	≤ 1
Resistance to immersion in boiling water	EN 438-2 : 12	Appearance	Rating (min)	≥ 4
			Longitudinal %	≤ 0.25
			Transversal %	≤ 0.25
Dimensional stability at elevated temperature	EN 438-2 : 17	Cumulative dimensional change		
Light fastness (xenon arc)	EN 438-2 : 27	Contrast (Wool scale)	ASTM G53-91 (314-400nm)	≥ 6
Resistance to water vapour	EN 438-2 : 14	Appearance	Rating (min)	≥ 4
Resistance to cigarette burns	EN 438-2 : 30	Appearance	Rating (min)	≥ 4
Resistance to crazing	EN 438-2 : 24	Appearance	Rating (min)	≥ 4
Modulus of elasticity	EN ISO 178	Stress	MPa	≥ 9000
Flexural strength	EN ISO 178	Stress	MPa	≥ 100
Tensile strength	EN ISO 527-2	Stress	MPa	≥ 70
Density	EN ISO 1183	Density	g/cm ³	≥ 1.35
Other properties				
Release of formaldehyde	EN 717-2	Classification	Class	E1
Chemical resistance	SEFA3-2010	Classification	Rating	Pass

 Due to conversion from metric values, the US values provided are approximate.

 All data are related to the products mentioned in the Trespa® TopLab®^{®1,5} standard delivery programme.

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