


Grad Cladding Technical Sheet

Model	Photo	Dimension
US117		45×20 mm (1.8×0.8 in)

NO.	Property	Test Method	Test results	Remark
1	Boiling test	EN15534	Water absorption in weight: 0.45%	
2	Coefficient Linear Thermal Expansion	ASTM D696	35.6×10^{-6} mm/mm °C	
		EN15534	34.0×10^{-6} K ⁻¹	
3	Degree of chalking	EN15534	Rating 0, no chalking	
4	Falling mass impact resistance	EN15534	Max Crack length(mm): No crack. Max Residual Indentation(mm): 0.14	
5	Formaldehyde Content	EN717-1	Non Detected	
		ASTM D6007-14	Non Detected	
6	Heavy Metal Content	EPA3051	Sb: ND, As: ND, Se: ND, Sn: ND	
7	Heat reversion	EN15534 EN479	0.14% (Test temperature: 100°C)	
8	Heat build-up	EN15534	$\Delta T = -3.1^\circ\text{C}$	
9	Lead Content Test	EUNo.628/2015	Non Detected	
10	Mould resistance	ASTM G21	Rating 0	

NO.	Property	Test Method	Test results	Remark
11	Moisture Content	EN15534 EN322	0.44%	
12	Neutral salt spray test	ASTM B117-2011	After 200 hours tests, there was no visible change appeared on the surface: Front surface: $\Delta E^*=1.22$, Grey Scale: 4-5 Back surface: $\Delta E^*=1.06$, Grey Scale: 4-5	
		EN15534 ISO9227	$\Delta E^*=1.42$, Grey Scale=4 (Exposure 96h)	
13	Pb, Cd, Hg, Cr6+	RoHs-IEC62321	Pb: ND, Cd: ND, Hg: ND, Cr ⁶⁺ : ND	
14	Resistance to artificial weathering	EN15534 ISO4892-2	After 2000h exposure $\Delta E^*=1.09$, Grey Scale=4-5	
15	Swelling and water absorption (24hours immersion)	EN15534	①Swelling: 0.35% in thickness, 0.01% in width, 0.02% in length. ②Water absorption: 0.24%	
16	Swelling and water absorption (28days immersion)	EN15534	①Swelling: 1.45% in thickness, 0.05% in width, 0.14% in length. ②Water absorption: 1.59%	
17	SRI Testing	ASTM C1549, ASTM C1371, ASTM E1980	19	
18	Thermal Resistance	ASTM C518-2010	Thermal conductivity: 0.1589W/(m·k) Thermal resistance: 0.0830(m ² ·K)/W	
19	UV Weathering test	ASTM G154	After 3000 hours test, Grey Scale 4-5, $\Delta E^*=1.42$	
20	VOC&TVOC	ASTM D5116-11	Non Detected	