

CASTELLATION CLADDING TECHNICAL DATA SHEET

Model	Photo	Dimension
CAS 160		
FINISH TRIM CIS 912		$56.0 \pm 1$ x $80.0 \pm 1$
OUTSIDE TRIM CIS 913		$80.0 \pm 1$ x $80.0 \pm 1$

NO.	Property	Test Method	Test results	Remark
1	Abrasion Resistance	ASTM D4060	33mg(1000cycles)	
2	Brinell hardness	EN15534	8.2N/mm2	
3	Boiling test	EN15534	Water absorption in weight: 0.49%	
4	Bond Strength	EN319	Average Bond Strength>2.3MPa No obvious abruption and damage after test	
5	Coefficient Linear Thermal Expansion	ASTM D696	$35.6 \times 10^{-6} \text{ mm/mm}^\circ\text{C}$	
		EN15534	$34.0 \times 10^{-6} \text{ K}^{-1}$	
6	Content of pentachlorophenol	CE ( EN14041(2004) )	2.99ppm	
7	Degree of chalking	EN15534	Rating 0, no chalking.	
8	Fire Resistance			On request, talk to the manufacturer
9	Formaldehyde Content	EN717-1	Non Detectable	
		ASTM D6007-14	Non Detectable	
10	Heavy Metal Content	EPA3051	Sb:ND, As:ND, Se:ND, Sn:ND	
11	Heat reversion	EN15534 EN479	Test temperature:100 °C :0.17%	
12	Heat build-up	EN15534	$\Delta T = -2.7^\circ\text{C}$	
13	Lead Content Test	EUNo.628/2015	Non Detectable	
14	Mould resistance	ASTM G21	Rating 0	
15	Moisture Content	EN15534 EN322	0.83%	

NO.	Property	Test Method	Test results	Remark
16	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 Sale=4 (Exposure 96h)	
17	Pb, Cd, Hg, Cr <sup>6+</sup>	RoHs-IEC62321	Pb:ND, Cd:ND, Hg:ND, Cr <sup>6+</sup> :ND	
18	Resistance to scratch test	ISO4586-2	Rate 2	
19	Resistance to indentation	EN15534	Apply 2000N load Brinell hardness: 60Mpa, Rate of elastic recovery: 64%	
20	Resistance to artificial weathering	EN15534 ISO4892-2	After 2000h exposure $\Delta E^*=1.09$ , Grey Sale=4-5	
21	Rockwell Hardness	ASTM D785	78.7R	
22	Swelling and water absorption (24hours immersion)	EN15534-1 EN15534-4	① Swelling: 0.43% in thickness, 0.02% in width, 0.03% in length. ② Water absorption: 0.11%	
23	Swelling and water absorption (28days immersion)	EN15534	① Swelling: 0.67% in thickness, 0.04% in width, 0.07% in length. ② Water absorption: 0.27%	
24	SRI Testing	ASTM C1549 ASTM C1371 ASTM E1980	19	
25	Surface Bond quality	EN319	>2.08MPa	
26	Thermal Resistance	ASTM C518-2010	Thermal conductivity: 0.1589W/(m·k) Thermal resistance: 0.0830(m <sup>2</sup> ·k)/W	
27	Thermal conductivity	CE ( EN14041(2004) )	0.19738W/m·K	
28	UV Weathering test	ASTM G154	After 3000 hours test, Grey Scale3, $\Delta E^*=3.56$	
29	VOC&TVOC	ASTM D5116-11	Non Dectectable	
30	Water absorption	ASTM D1037	Water absorption(24h): 0.12%	
31	Installation Span	Manufacturers Specification	500mm on center	