MightyBead® Datasheet

Date: March 2014

No.	Test Item	Test method	Test Condition	Test result	Requirement in prEN 15534-4	Conclusion
1	Flexural properties	prEN 15534-4: 2012 Section 4.4.2 and prEN 15534-1: 2012 Annex A	Specimen: 500x144x29.2mm Testing speed: 9.1mm/min Span: 400mm (declared by the manufacturer	See table 1	Maximum load ≥3300NN (arithmetic mean value)	Pass
					Maximum load ≥3000NN (individual values)	
					Deflection under a load of 5000N ≤2.0mm (arithmetic mean value)	
					Deflection under a load of 5000N ≤2.5mm (individual values)	
2	Maximum load (surface withdrawal)	With reference			–	–
3	Resistance to artificial weathering	With reference to prEN 15534-4: 2012 Section 4.4.5, prEN 15534-1: 2012 Section 8.1, EN ISO 4892-2: 2006, ISO 7724-1-1984, ISO 7724-2-1984, ISO 7724-3-1984 and client's requirement	Test cycle: EN ISO 4892-2: 2006 cycle1 Irradiance: (0.51±0.02) W/(m²·nm)@340nm 102 min light at (65±3)°C BST, (50±10)% RH 18 min light and water spray Filter: Daylight Exposure period: 300h	See table 2 and note 1	ΔL*, Δa*, Δb* shall be declared and AE* ≤15	Pass
4	Swelling in thickness	EN 317: 1993	Specimen: 50x50x29.2mm Immersion condition: 20±1°C, 24h	0.05% See note 2	–	–
5	Linear mass (applicable to profiles)	prEN 15534-4: 2012 Section 4.3 and prEN 15534-1: 2012 Section 6.5	Specimen: 51x145x29.2mm	See table 3	Individual values ≥95% declared value by the manufacturer	–
6	Moisture content	ISO 16979: 2003	Specimen: 100x145x29.2mm Drying condition: 103±2°C to constant mass	0.93% See note 3	–	–

TABLE 1

Specimen No.	1	2	3	4	5	6	7	8	Average
Maximum load, N	4400	3662	4378	3821	3657	3883	4530	3939	4034
Deflection under a load of 500N, mm	0.74	0.74	0.74	0.73	0.71	0.77	0.75	0.76	0.74

TABLE 2

Sample	ΔL*	Δa*	Δb*	ΔE^*_{ab}(D65, 10O)
1	-0.56	1.33	0.77	1.6

TABLE 3

Specimen No.	1	2	3	Average
Test result	2920g/m	2904g/m	2947g/m	2924g/m

Notes:

1. ΔL*, Δa*, Δb* and ΔE^*_{ab} values were measured by sphere spectrophotometer under D65 standard light source and with 10° observer. The results include specular reflection condition, 2mm aperture.
2. Swelling in thickness, % = (Thickness after immersion - Thickness before immersion) / Thickness before immersion x 100.
3. Moisture content, % = (Mass before drying - Mass after drying) / Mass after drying x 100.