

Chromatics safety glass

Tests and compliance with standards for rainscreen and monolithic spandrel panels

Test	Material tested	Standard	Standard test	Chromatics test	Result	Tested by	Full report (cf. Contents)
Wind resistance - serviceability	6mm Chromatics	Standard for systemised building envelopes, CWCT 2006	Pulse from 0 to 2400Pa to 0; 4 increments maintained for 15 seconds	As standard	Pass @ 2400Pa	Taylor Woodrow Technology Centre: UKAS Testing Laboratory 0057	2.1, 2.2 p.11
Wind resistance - safety	6mm Chromatics	Standard for systemised building envelopes, CWCT 2006	Pulse from 0 to 3600Pa to 0; rapid pressure increase maintained for 15 seconds	As standard	Pass @ 3600Pa	Taylor Woodrow Technology Centre: UKAS Testing Laboratory 0058	2.1, 2.2 p.12
Watertightness - dynamic pressure	6mm Chromatics	Standard for systemised building envelopes, CWCT 2006	3.4l/m ² /minute water spray; positive pressure differential of 500Pa for 15 minutes	As standard	Pass	Taylor Woodrow Technology Centre: UKAS Testing Laboratory 0059	2.1, 2.2 p.18
Soft body impact	6mm Chromatics	BS 8200	To test the integrity and continued performance of fixings and primary wall	As standard	Pass @ 120Nm	Taylor Woodrow Technology Centre: UKAS Testing Laboratory 0060	2.1, 2.2 p.21
Hard body impact	6mm Chromatics		To test impact resistance of rainscreen panel	As standard	Pass @ 6Nm	Taylor Woodrow Technology Centre: UKAS Testing Laboratory 0061	2.1, 2.2 p.21
Impact test	4mm Chromatics	BSEN 12600	To test safety and integrity of panel	As standard	Pass - Class 3B3	Wintech Engineering Ltd: UKAS Testing Laboratory 2223	2.3, 2.4
Various tests	4mm Chromatics	BS 3900 D1, D6, E4, F2, F3, F8	Durability tests	As standard	Pass	Holden Surface Coatings Ltd (ICI)	3.4, p. 2, 3, 4
Weather exposure - Florida UV test	Black, white and grey 4mm Chromatics	BS 3900 F6: Sub-tropical UV outdoor exposure test	12 months	12 months	Pass	Sub-Tropical Testing Service, Florida	3.4, p.3
Accelerated weathering	4mm Chromatics	BSEN ISO 12543-4.5.3.1	RH 100% for 336 hours at 50C	35C to 75C at 100% RH for 300 cycles (3600 hours) with condensation	No change	Pilkington European Technology Centre	3.5, p.3
Heat ageing	4mm Chromatics	BSEN ISO 12543-4.4	100C for 2 hours	120C for 90 days	No change	Pilkington European Technology Centre	3.5, p.3
Water immersion	4mm Chromatics	No equivalent BSEN test	n/a	50C for 30 days	No change	Pilkington European Technology Centre	3.5, p.4

Test	Material tested	Standard	Standard test	Chromatics test	Result	Tested by	Full report (cf. Contents)
Low temperature cycling	4mm Chromatics	BSEN ISO 12543-4.5.3.2	RH 80% for 336 hours at 50C	53C to -18C at 50% RH for 200 cycles (2400 hours) without condensation		Pilkington European Technology Centre	3.5, p.4
Solar irradiation	4mm Chromatics	BSEN ISO 12543-4.6	2000 hours	2000 hours	No change	Pilkington European Technology Centre	3.5, p.4
Sulphur dioxide resistance	4mm Chromatics	BSEN ISO 3231	RH 100% for 30 days	As standard	No change	Pilkington European Technology Centre	3.5, p.5
Neutral salt spray	4mm Chromatics	BSEN ISO 7253:2001	1000 hours	13000 hours	No change	Jotun Powder Coatings UK	
Outdoor exposure	6mm Chromatics			Daily monitoring from 24.01.06	No change	SPM Technical Services	3.8
Thermal safety	6mm Chromatics	Stress Relieving Factor and Safe Break Temperature Difference	$BTD = (RI \times a + DR \times he) / he + hi$	Geography and design sensitive	Results typically indicate thermally safe	Sheffield University Glass Technology Centre	3.7
Adhesion pull-off	6mm Chromatics	BSEN 1542:1999	Dollie adhered and drawn by pneumatic pressure	As standard. Load at break 498N-649N	No failure of foil bond	Taylor Woodrow Technology Centre: UKAS Testing Laboratory 0061	5.1, 5.2
Adhesion pull-off	6mm Chromatics	Equivalent to BSEN 1542:1999	Dollie adhered and loaded by water barrels	Test terminated at 200 kilos	No failure of foil bond	SPM Technical Services	
Adhesion pull-off	6mm Chromatics	Standard for systemised building envelopes, CWCT 2006	Pulse from 0 to 3600Pa to 0; rapid pressure increase maintained for 15 seconds	SIKA Tack Panel Adhesive System	Pass @ 3600Pa	Taylor Woodrow Technology Centre: UKAS Testing Laboratory 0058	2.1, 2.2 p.12
SIKA tack Panel Adhesive System	6mm Chromatics	Agreement Certificate 05/4218	Assessments for mechanical resistance, durability, behaviour in fire, QA procedures	As standard	Certificate awarded. Chromatics included Oct. 09	British Board of Agreement	5.11
DGU adhesion	6mm Chromatics	Compatibility test	Compatibility with polysulphide, silicone, polyurethane	70C for 2000 hours	No change	Pilkington European Technology Centre	