DGL INTERNATIONAL

POWDER COATINGS

SPECIFICATION SOLUTIONS

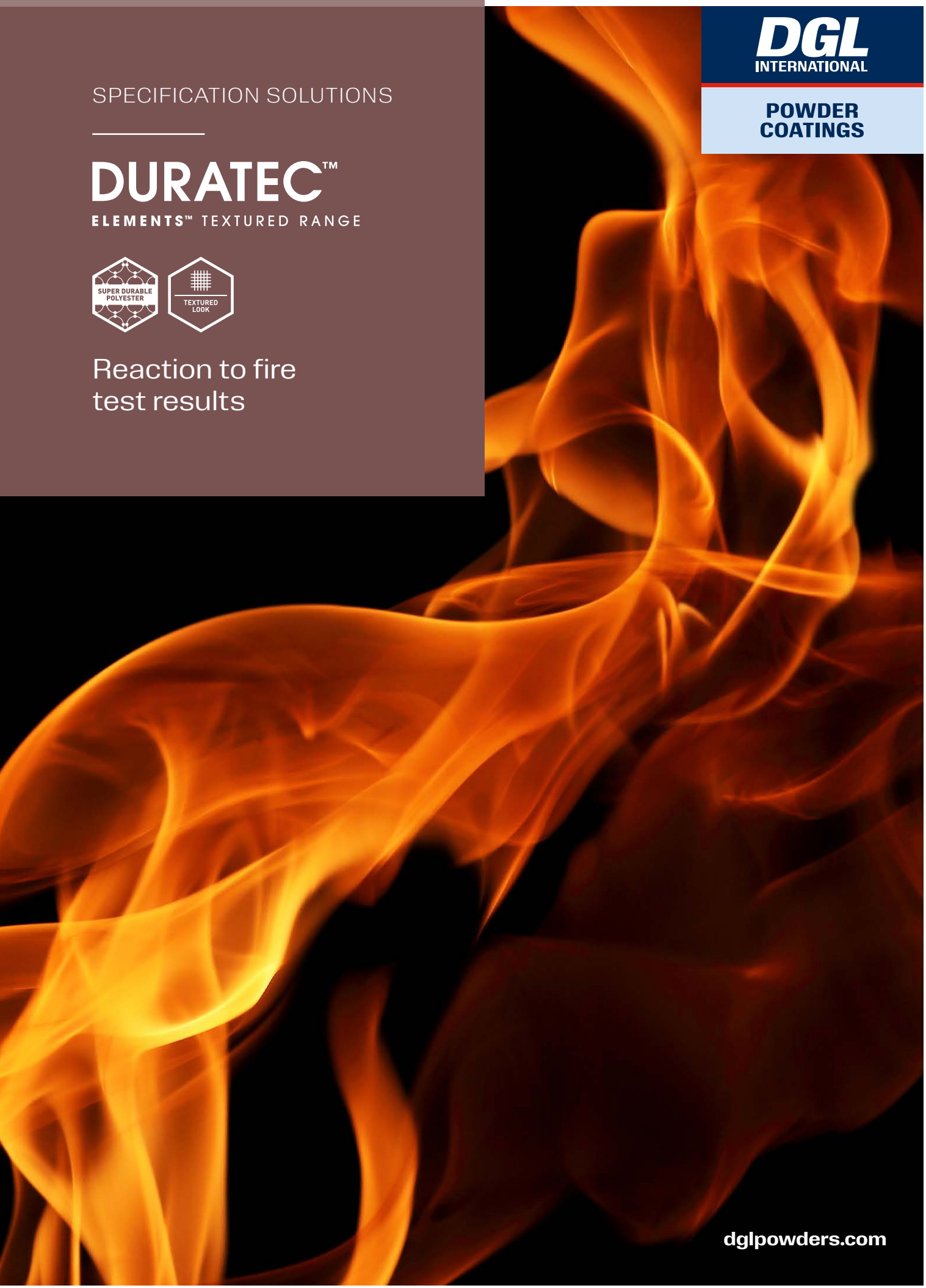
DURATEC™

ELEMENTS™ TEXTURED RANGE

SUPER DURABLE POLYESTER

TEXTURED LOOK

Reaction to fire test results



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ELEMENTS™ TEXTURED RANGE

Two industry standard 'reaction-to-fire' tests have been carried out for the DGL Duratec Elements textured premium powder coat range in accordance with the Australian and New Zealand building codes to determine the Group Number Classification, Spread of Flame and Smoke Developed Indices.

Project: TLC Aged Care.
Architect: Baldasso Cortese Architects.
Photo credit: Kane Jarrod Photography.
Products: Duratec Elements Rojo (CustomColour), Duratec Elements Marron (CustomColour) and Duratec Elements Naranja (CustomColour).

SUPER DURABLE POLYESTER

TEXTURED LOOK

Test results

Industry Standard: AS/NZS1530.3-1999 Methods for fire tests on building materials, components and structures Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release	
Standard	This Standard sets out a test method for the assessment of building materials and components to measure their behaviour and contribution to the progress of fire and further spread of it. These include: (a) their tendency to propagate flame; and (b) their tendency to release smoke.
Purpose	DGL Powder Coatings has undertaken independent testing in accordance with AS/NZS 1530.3 -1999 to allow consumers and/or regulatory bodies to determine the suitability of its architectural grade coating systems for aluminium coated extrusions, sheets, claddings, fixings, components, etc with regards to the fire hazard of the coating. The test results outlined below are specific to DGL Duratec Elements textured super durable polyester architectural grade powder coat finishes.
Regulatory Indices	Index: Range (0-10), Score 0 — Spread of Flame Index: (0-10), Score 3 — Smoke Developed Index: (0-10), Score 3
Results Analysis	According to NCC (National Construction Code) volume one specification C1.9 e (v) of the Building Code of Australia (BCA) 2019, Duratec Elements textured range may be used wherever a non-combustible material is required on pre-finished or powder coated metal sheeting having a combustible surface finish not exceeding 1 mm thickness and where the Spread-of-Flame Index of the product is not greater than 0. The specimen was tested on a Group 4 (least reactive) substrate as specified by Clause 4.4.3 of AS1530.3:1999. These results only apply to any substrate in the same group or a less reactive material. The results of this fire test may be used to directly assess fire hazard, but it should be recognized that a single test method will not provide a full assessment of fire hazard under all fire conditions.

Industry Standard: ISO 5660 Parts 1 and 2		
Determination of Fire Hazard Properties – Wall & Ceiling linings		
Standard	The Standard sets out procedures for the assessment of wall & ceiling linings to provide means for the determination of a Group Number Classification according to:	(a) their tendency to ignite; (b) their tendency to release heat once ignition has occurred; (c) their tendency to cause flashover; (d) their tendency to release smoke; and (e) their contribution to fire growth.
Purpose	DGL Powder Coatings has undertaken independent testing to determine the Group Number Classification. **Group Number Classification in accordance with the New Zealand Building Code** Calculations were carried out according to NZBC Verification Method C/VM2 Appendix A. The classification for the sample is given in the table below. **Group Number Classification in accordance with NCC Australia** Calculations were carried out according to AS5637.1:2015. The Group Number Classification and Average Smoke Extinction Area for the sample is given in the table below. **Determination of Fire Hazard Properties** The specimen was deemed suitable for testing in accordance with AS 5637.1:2015 and testing was performed in accordance with ISO 5660 for the purposes of Group Number Classification as specified in the NCC volume one specification C1.10 C (viii) of the Building Code of Australia (BCA) 2019 for the classification of wall and ceiling linings.	
Results Analysis	**Building Code Document** / **Group Number Classification** NZBC Verification Method C/VM2 Appendix A: Establishing Group Numbers for lining materials: 1-S NCC Volume One Specification C1.10 C (viii) determined in accordance with AS 5637.1:2015: 1 — The average specific extinction area was less than the 250 m^2/kg limit Group 1 is the highest (best) classification and Group 4 is the poorest performing classification. The tests conducted according to the BCA assess the contribution that surface finishes make to the spread of fire and smoke to ensure that the building is protected from the spread of fire and smoke to allow sufficient time for the orderly evacuation of the building in an emergency.	

Further information

Detailed reports

For a copy of the detailed independent test results for the DGL Duratec Elements textured powder coat range referred to in this document please contact your DGL representative or refering to the reports below.

	AS/NZS1530.3-1999	ISO 5660 Parts 1 and 2
Report Reference	AWTA Limited Product testing – Report No. 20-006658 (January 2021)	BRANZ – Report No. FH 13174-001 ISSUE 1 (2021)

Standards

For copies of the standards referenced in this document please refer to:.

	AS/NZS1530.3-1999	ISO 5660 Parts 1 and 2
Standards Reference	To access AS/NZS1530.3-1999 visit Australian or New Zealand Standards websites	To access ISO 5660 visit Australian or New Zealand Standards websites

Other DGL reaction to fire test results

For other DGL Architectural Powder coat range test reports for reaction to fire visit **dglpowders.com/spec-solutions**.

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POWDER COATINGS

Advice

Our dedicated consultants can help simplify the specification process, saving you time and money by providing the right coating advice for your project.

Simply visit **dglpowders.com/contact-us**

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