



TEST REPORT NO.: 16 – 0258.4

Report Date: 20/9/16
Our Ref: 16/A/1402
Client: Abey Australia Pty Ltd
57-81 Abey Rd Melton Vic 3337
By Email: geoff_anderson@abey.com.au
Sample: Galvanised expansion ties
Sample received: 8/3/16



Sharp and Howells Pty Ltd

41 Greenaway Street
Bulleen, Victoria, 3105
Phone: (03) 9850 9722
Email: lab@sharpandhowells.com.au
Website: www.sharpandhowells.com.au
NATA Lab. No. 61 & 658

Report Prepared By: _____ Stuart Errey

TEST

METHOD OF TEST

Determination of:

Strength of masonry connectors

AS/NZS 2699.2-2000 Appendix A

STRENGTH OF MASONRY CONNECTORS

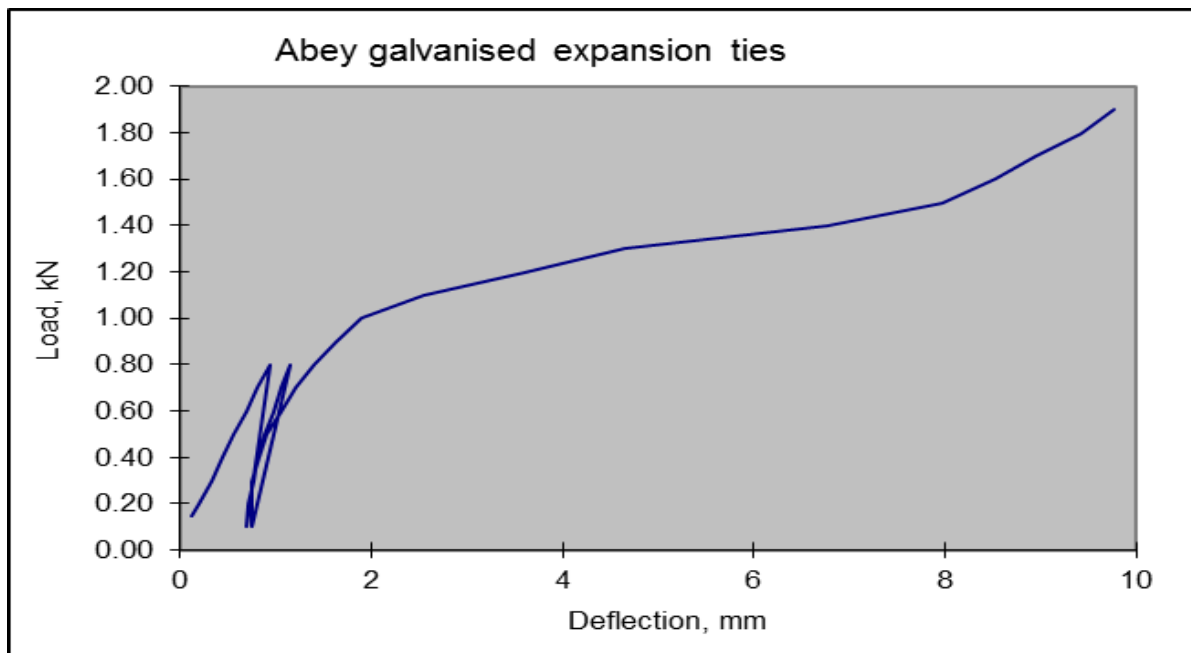
Cavity width:	10mm	Location of test:	Lab
Source of the lot:	Box of 20	Age of specimens when tested:	7 to 12 days
Date of test:	7-12/9/16		

Specimen no	Peak load, kN	Displacement, mm				Preliminary stiffness, kN/mm	Serviceability stiffness, kN/mm
		a	b	c	d		
1	1.75	0.00	1.40	0.90	1.90	0.65	1.18
2	1.17	0.00	1.45	1.00	1.85	0.59	1.47
3	1.27	0.50	1.00	1.70	1.50	0.49	1.18
4	1.62	0.00	1.50	1.55	1.95	0.38	1.31
5	1.90	0.00	0.00	0.40	0.50	1.47	1.18
6	2.39	0.20	0.25	0.55	0.75	1.68	1.18
7	2.31	0.25	0.20	0.55	0.35	1.96	3.92
8	2.15	0.00	0.20	0.70	0.90	0.84	0.84
9	3.05	0.15	0.30	0.80	0.60	0.90	1.96
10	1.98	0.00	0.55	1.25	1.30	0.47	0.78
Mean	1.96	0.11	0.69	0.94	1.16	0.94	1.50
Coeff. of variation	0.28	1.53	0.86	0.47	0.53	0.59	0.61

Characteristic preliminary stiffness: 0.82 kN/mm

Characteristic serviceability stiffness: 1.30 kN/mm

Characteristic strength: 0.79 kN



Mean load v deflection behaviour of the ties



One of the expansion ties



One of the specimens after testing. Each end of the tie was embedded in mortar (1 cement : 1 lime : 6 cement) between two bricks, with a spacing of 10mm between the couplets. One couplet was clamped to the testing machine (right of photo; clamps not shown). The other was supported 25mm in from the end. The load was applied to the left couplet, 25mm from the central spacing.