

BUILDING
COMMON GROUND



Spacers

Test Result Summary

Test Result Summary - VicRoads

Test	Requirement	Required Value	Test Result (Cast)	Test Result (Fibre)
Compressive Strength (MPa) ^{1,2}	AS/NZS 2425:2015	> 60	89	73
Volume of Permeable Voids (%) ^{3,4}	VicRoads Section 610	≤ 12	12	8.6
Chloride as a Cl (%) ^{5,6}	VicRoads Section 610	< 0.07	0.01	0.02
Sulfate as SO ₃ (%) ^{5,6}	VicRoads Section 610	< 4	0.91	0.89
ASTM C1202 ^{7,8}	AS/NZS: 2425:2015	<1000	450	804

Original test certificates are available for above tests:

1. Compressive Strength (Cast) – Report No.: WMT-19/05530, 25/05/2019
2. Compressive Strength (Fibre) – Report No.: WMT-19/03574, 08/04/2019
3. Volume of Permeable Voids (Cast) – Client No.: 482/19, Request No.: 83380, 09/04/2019
4. Volume of Permeable Voids (Fibre) – Client No.: 482/19, Request No.: 83580, 08/01/2020
5. Chloride and Sulfate content (Cast) – File No.: 482/19, Request No.: 83380, 12/03/2019
6. Chloride and Sulfate content (Fibre) – File No.: 482/19, Request No.: 82979, 09/01/2020
7. ASTM C1202 (Cast) – File No: 482/19, Request No.: 83380, Lab Sample No.: 218299, 09/04/19
8. ASTM C1202 (Fibre) - File No: 482/19, Request No.: 83580, Lab Sample No.: 218826, 08/04/19

Strength Grade Tests (AS/NZS2425)

Spacer	Test Load	Cover	Height Tolerance (mm)		Deflection (mm)		Permanent Set (mm)		Cracking
			Test	Required Value	Test	Reqd.	Test	Reqd.	
AB50HFOEDAU ¹	300kg	50mm	+0.6	±1.0, ± 2.0	0.51	± 3.0	0.18	< 2.0	None
AB50QFOED ¹	300kg	50mm	+0.2	±1.0, ± 2.0	0.35	± 3.0	0.19	< 2.0	None
NAO5073 ²	300kg	50mm	-0.3	±1.0, ± 2.0	0.34	± 3.0	0.13	< 2.0	None
NAO6013S40 ²	300kg	60mm	+0.5	±1.0, ± 2.0	0.25	± 3.0	0.05	< 2.0	None
NAO5513 ²	300kg	55mm	-0.2	±1.0, ± 2.0	0.24	± 3.0	0.05	< 2.0	None
NFAHV050050033 ²	300kg	50mm	+0.1	±1.0, ± 2.0	0.20	± 3.0	0.04	< 2.0	None
NFAHD050100 ²	200kg	50mm	-1.6	±1.0, ± 2.0	0.29	± 3.0	0.12	< 2.0	None

Original test certificates are available for above tests:

1. Strength tests (Cast)– File No.: 482/19, Request No.: 83380
2. Strength tests (Fibre)– File No.: 482/19, Request No.: 82979

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Test Result Summary - RMS B80

Test	Requirement	Required Value	Test Result (Cast)	Test Result (Fibre)
Compressive Strength (MPa) ^{1,2}	AS/NZS 2425:2015	> 60	89	73
Chloride as a Cl (kg/m ³) ^{3,4}	RMS B80	≤ 0.3	0.010	0.3
Sulfate as SO ₃ (%) ^{3,4}	RMS B80	≤ 3	0.9	0.8
ASTM C1202 ^{5,6}	AS/NZS: 2425:2015	<1000	450	804
Sorptivity (mm) ^{7,8}	RMS B80	≤ B1:25, B2:20, C:8	≤ B1:5, B2:2, C:2.5	≤ B1:4.5, B2:2, C:3
NT443 (m ² /sec) ^{9,10}	RMS B80	≤ B2:3.5, C:2.0	≤ 1.53	≤ 2.39

Original test certificates are available for above tests:

1. Compressive Strength (Cast) – Report No.: WMT-19/05530, 25/05/2019
2. Compressive Strength (Fibre) – Report No.: WMT-19/03574, 08/04/2019
3. Chloride and Sulfate content (Cast) – File No.: 482/19, Request No.: 83380, 12/03/2019
4. Chloride and Sulfate content (Fibre) – File No.: 482/19, Request No.: 82979, 09/01/2020
5. ASTM C1202 (Cast) – File No.: 482/19, Request No.: 83380, Lab Sample No.: 218299, 09/04/2019
6. ASTM C1202 (Fibre) – File No.: 482/19, Request No.: 83580, Lab Sample No.: 218826, 08/04/2019
7. Sorptivity (Cast) – File No.: 482/19, Request No.: 83380, Lab Sample No.: 218299, 26/04/2019
8. Sorptivity (Fibre) – File No.: 482/19, Request No.: 82979, Lab Sample No.: 217242, 22/04/2019
9. NT443 (Cast) – File No.: 482/19, Request No.: 83380, Lab Sample No.: 218299, 09/06/2019
10. NT443 (Fibre) – File No.: 482/19, Request No.: 82979, Lab Sample No.: 217241, 07/06/2019

Strength Grade Tests (AS/NZS2425)

Spacer	Test Load	Cover	Height Tolerance (mm)		Deflection (mm)		Permanent Set (mm)		Cracking
			Test	Required Value	Test	Reqd.	Test	Reqd.	
AB50HFOEDAU ¹	300kg	50mm	+0.6	±1.0, ± 2.0	0.51	± 3.0	0.18	< 2.0	None
AB50QFOED ¹	300kg	50mm	+0.2	±1.0, ± 2.0	0.35	± 3.0	0.19	< 2.0	None
NAO5073 ²	300kg	50mm	-0.3	±1.0, ± 2.0	0.34	± 3.0	0.13	< 2.0	None
NAO6013S40 ²	300kg	60mm	+0.5	±1.0, ± 2.0	0.25	± 3.0	0.05	< 2.0	None
NAO5513 ²	300kg	55mm	-0.2	±1.0, ± 2.0	0.24	± 3.0	0.05	< 2.0	None
NFAHV050050033 ²	300kg	50mm	+0.1	±1.0, ± 2.0	0.20	± 3.0	0.04	< 2.0	None
NFAHD050100 ²	200kg	50mm	-1.6	±1.0, ± 2.0	0.29	± 3.0	0.12	< 2.0	None

Original test certificates are available for above tests:

1. Strength tests (Cast)– File No.: 482/19, Request No.: 83380, 05/04/2019
2. Strength tests (Fibre)– File No.: 482/19, Request No.: 82979, 04/04/2019

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DMS ref 498/00498
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Department of
Transport and Main Roads

22 October 2019

Mark Sedhom
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Product Assessment – Bridges and Other Structures

Dear Mark

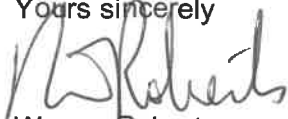
In accordance with the *Product Index for Bridges and Other Structures* and the relevant technical specifications, the following products have been assessed.

Product Category: Bar Chairs (Concrete)
Specifications: MRTS70 (Nov 2018), AS/NZS 2425 (2015)

Product Name	Result of Assessment
AO / BAO range (no wire)	Registered
AD / BAD range (stainless wire only)	Registered
AK range	Registered
Rondo spacer	Registered
Arolle spacer	Registered
FAH range [FAHKS, FAHKBN, FAHSS, FAHSB, FAHDH, FAHKZD, FAHR only]	Registered
ABxxHFOEDAU	Registered
ABxxQFOED	Registered

Conditions of registration are as outlined in the *Product Index*.
If you have any queries about the above please simply give us a call.

Yours sincerely



Wayne Roberts
Manager (Concrete Materials)



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