



**Boral Construction Materials
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CONCRETE TEST SUMMARY
PENETRON BIOMIC, Type SN, AS1478.1
at 5 LITRES per CUBIC METER

CLIENT: Penetron Australia

PROJECT: AS1478 Compliance Test for Penetron BioMIC

Client No: 773/23

REQUEST No: 106205

LAB SAMPLE No: 285169 & 285170 (control), 285173 & 285174

Standard AS 1478.1-2000: Chemical admixtures for concrete, mortar and grout,
part 1: admixtures for concrete

Cement: Bulk Type GP ex Berrima 2301124 BTSL

Date of Test: 26.05.2023

PARAMETERS	Control	Concrete 5L/m ³ BioMIC	Comparison	AS1478.1 REQUIREMENTS	Pass or Fail
Cement Content	300	300	0	(cement 300 ± 15 kg/ m ³) ± 5kg of control	Pass
Slump	85	80	-5	80 ± 10 mm	Pass
Time of Setting	3:55	3:55	+00:00	Initial: ± 1 hour	Pass
	5:50	5:50	+00:00	Final: ± 1 hour	
Water Content	200	200	100%	Test and report	Pass
Bleeding (%)	2.1	2.0	-0.1	Not exceed that of the control by more than 2%	Pass
Air Content (%)	1.4	1.4	0.0	Test and report	Pass

COMPRESSIVE STRENGTH:

Age	Min. of Control	Control (MPa)	Concrete with 5L/m ³ BioMIC (MPa)	Comparison	Pass/Fail
3	90%	21.5	21.0	98%	Pass
7	90%	27.5	28.5	104%	Pass
28	90%	35.0	36.0	103%	Pass
90	90%	39.5	39.5	100%	Pass

DRYING SHRINKAGE: (Microstrain)

Age	Min. of Control	Control	Concrete with 5L ³ BioMIC	Difference
7	Test and report no limit established	190	180	-10
14	Test and report no limit established	280	275	-5
21	Test and report no limit established	365	355	-10
28	Test and report no limit established	445	430	-15
56	Test and report no limit established	540	530	-10

Note: All samples were prepared, cured and tested at this Laboratory as per AS 1012.2,.3,.4,.5,.6,.8,.9,.13,.18 respectively.

Remarks: *This admixture (Penetron BioMIC at 5L/m³) complies with the requirements as per AS1478.1 2000, type SN admixture.*

Steve Hodgkinson, File 773, File 8363, Ref 106205

Tony Song 05.09.2023.

Tony Song
Senior Laboratory Engineer - Concrete