

An advisory report summarising the testing of Clear Form Wall Systems “200-mm PVC permanent formwork load bearing system” in accordance with AS/NZS 1530.3:1999

Advisory Report

Author: Heherson Alarde

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Client: Permaform Australia Pty Ltd

Commercial-in-confidence

Enquiries should be addressed to:

Fire Testing and Assessments	Author	The Client
NATA Registered Laboratory	Infrastructure Technologies	Permaform Australia Pty Ltd
14 Julius Avenue	14 Julius Avenue	Bldg. 2G, Yennora Dist. Centre
North Ryde, NSW 2113	North Ryde, NSW 2113	Loftus Rd, Yennora NSW 2161
Australia	Australia	Australia
Telephone +61 2 94905444	Telephone +61 2 94905445	Telephone +61 488 040 603

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AUTHOR	REVIEWED BY	AUTHORISED BY
Heherson Alarde	Keith Nicholls	Brett Roddy
		
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1 Introduction

This advisory report summarises the details and results of the test conducted on a product stated by the manufacturer to be identical to Clear Form Wall Systems “200-mm PVC permanent formwork load bearing system”. The test was conducted in accordance with AS/NZS 1530.3:1999 Simultaneous Determination of Ignitability, Flame Propagation, Heat Release and Smoke Release.

2 Identification of specimen

The sponsor of the test and the manufacturer of the specimen tested in CSIRO Report No. FNE12353 was Permaform International Pty Ltd identified the specimen as identical to Clear Form Wall Systems “200-mm PVC permanent formwork load bearing system”.

Permaform International Pty Ltd has been acquired by Clear Form Wall Systems Pty Ltd and the specimen has been rebranded.

The manufacturer of the specimen tested in CSIRO Report No. FNE12353 has confirmed that “Permaform” described by the sponsor of the test as an extruded polyvinyl chloride (PVC) is identical to the PVC used in the “200-mm PVC permanent formwork load bearing system” manufactured by the new business owners Clear Form Wall Systems Pty Ltd.

Permaform International Pty Ltd has confirmed in writing there is no change to the material specification or manufacturing process and the only difference is in the name and branding of the product.

3 Description of specimen

The sponsor of the test described the tested specimen as an extruded polyvinyl chloride (PVC) applied over a 4.5 mm thick fibre-reinforced cement (FC) board. The specimen is comprised of one 185-mm by 600-mm and one 265-mm by 600-mm pieces juxtaposed to form the 450-mm and 600-mm dimensions required for testing.

Nominal thickness of PVC:	2.5 mm
Nominal thickness of FC board:	4.5 mm (measured)
Nominal total thickness:	7 mm
Nominal density of PVC:	1300 kg/m ³
Colour:	white

4 Test results

CSIRO was engaged by the sponsor of the test Permaform International Pty Ltd to conduct a reaction to fire test on “Permaform” (a product stated by the manufacturer to be identical to Clear Form Wall Systems “200-mm PVC permanent formwork load bearing system”) in accordance with AS/NZS 1530.3:1999 Simultaneous Determination of Ignitability, Flame Propagation, Heat Release and Smoke Release.

The test was conducted on 6th May 2019.

For a complete record of the results of the test, refer to CSIRO Report No. FNE12353 issued on 27th May 2019.

4.1 Test procedure

Six (6) samples were tested in accordance with AS/NZS 1530, Method for fire tests on building components and structures, Part 3: Simultaneous determination of ignitability, flame propagation, heat release and smoke release, 1999. For the test, each sample was restrained by one layer of a square mesh having 0.8-mm diameter wires and 12-mm x 12-mm nominal aperture size over the exposed face and clamped to the specimen holder in four (4) places.

4.2 Test results and Indices for regulatory purposes

The following means and standard errors were obtained:

Parameter	Mean	Standard Error
Ignition Time (min)	7.0	0.1
Flame Spread Time (s)	N/A	N/A
Heat Release Integral (kJ/m ²)	15.3	3.1
Smoke Release (log ₁₀ D)	-1.029	0.068

For regulatory purposes these figures correspond to the following indices:

Ignitability Index (0-20)	Spread of Flame Index (0-10)	Heat Evolved Index (0-10)	Smoke Developed Index (0-10)
13	0	0	4

References

The following informative documents are referred to in this Report:

AS/NZS 1530.3: 1999	Simultaneous Determination of Ignitability, Flame Propagation, Heat Release and Smoke Release.
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CONTACT US

t 1300 363 400
+61 3 9252 6000
e enquiries@csiro.au
w www.csiro.au

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FOR FURTHER INFORMATION

Infrastructure Technologies

Keith Nicholls
Team Leader - Fire Assessments
t +61 2 94905450
e keith.nicholls@csiro.au
w <https://research.csiro.au/infratech/fire-safety/fire-testing/>

Infrastructure Technologies

Brett Roddy
Group Leader, Fire Testing and Assessments
t +61 2 94905449
e brett.rodby@csiro.au
w <https://research.csiro.au/infratech/fire-safety/fire-testing/>