

SERENITY POOL & FRAME
STRUCTURAL CAPACITY DESIGN ASSESSMENT

ASSET ID: _____

SERIAL NUMBER: _____

CLIENT: Polyworld, 14-20 Robson St, Clontarf QLD 4019

Notes:

Rev	Date	Notes
0	10/02/2024	APPROVED FOR ISSUE



Austica Pty Ltd

LEADERSHIP IN ENGINEERING

Web: <http://austica.net.au>

Mobile: +61(0)422468514

email: peter.kairu@austica.net.au

Studio: 2/101 Annerley Rd

Woolloongabba

Qld 4102

CLIENT: Polyworld, 14-20 Robson St, Clontarf QLD 4019.

PROJECT: Various as determined by Polyworld.

LOCATION: Various as determined by Polyworld.

ITEM: Serenity Pool & frame Structure Design Capacity assessments.

ASSET ID: _____. **SERIAL NUMBER:** _____

DATE: 10/02/2024.

COMMENTS:

Polyworld requested a Structural Capacity Design Assessment for a Serenity Pool & Frame Structure. The pool main fabrication materials consisted of Alkatuff LL711UV Linear Low Density Polyethylene Materials. Nominal wall thickness was 9 to 12mm. The frame consisted of aluminium and steel SHS and aluminium plates. Polyworld provided the associated Fabrication Drawings as per the attached PDF.

Austica Pty Ltd then carried out Structural Modelling and Analysis to check Structural Capacity compliance with AS 1170, AS 1170.1, AS 1838, AS 1664.1, AS1665, AS 4100 and AS 1554.1

The Analysis indicates that the Serenity Pool & frame Structure design meets the requirements of the above noted Australian Standards, where installed as per the manufacturer recommendations.

Pool installation to be as per AS 1839 specifications. Where the structure is partially or wholly installed into the ground, relevant Engineers including Geotechnical, Structural and Hydraulic Engineers to be consulted to offer specific site pool installation and operation specifications. Site specific Engineering specifications to also consider pool emptying procedures including any necessary internal bracing. Periodic inspections to be carried out to the Structure and identify any damage. The Structure to be only used when in structurally sound state.

Polyworld to ensure the pool fabrication has been carried out to ISO 9000 QA procedures and that the materials indicated in the fabrication drawings have been utilised.

Sign:



Name: Peter Kairu RPEQ 10198 MIEAust CPEng Chartered Professional Engineer 3473760 NER

Att: Fabrication Drgs PDF

Base Reference: AS 1170, AS 1170.1, AS 1838, AS 1839, AS 1664.1, AS 1665, AS 4100, AS 1554.1



POLYWORLD™

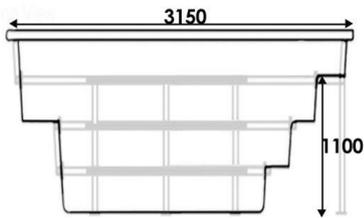
T (07) 3889 5300
F (07) 3284 6612

A 14 - 20 Robson Street
Clontarf QLD 4019 Australia

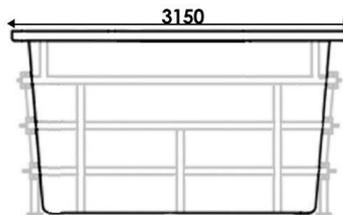
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Serenity Pool & Frame Drawings

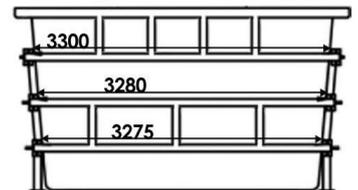
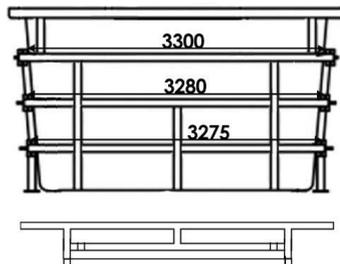
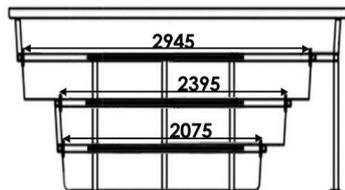
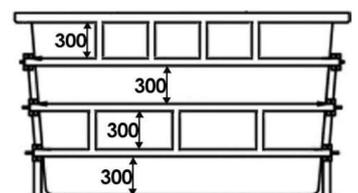
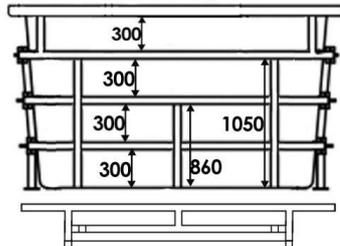
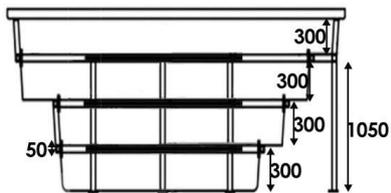
Side Profile



Stair End



Deck End



Benchmark Certificate

This is to certify that:

Polymer Link Sdn. Bhd
Lot 99045, Jalan Tun Perak 1/KU16
Perdana Industrial Park
Port Klang
Selangor
42000
Malaysia

Holds Certificate Number:

BMP 694797

In respect of:

AS/NZS 4766:2020 Rotationally moulded buried, partially buried and non-buried storage tanks for water and chemicals.

Is authorised to use the BSI registered Benchmark Product Certification Trademark, on products identified in the Product Certification Schedule that is attached to this Product Certification certificate. Such products have been Type Tested and are manufactured under the Product Certification Requirements monitored by BSI to ensure that the manufacturing process has the capability to consistently produce products in compliance with and are certified to the above standard(s).

For and on behalf of BSI:

Charlene Loo, Managing Director, BSI Group Australia & New Zealand

First Issued: 2019-05-09

Latest Issue: 2024-06-12

Expiry Date: 2029-05-08

JAS-ANZ



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Benchmark Certificate

No. BMP 694797

Schedule

This schedule supports the Product Certification Certificate for

Polymer Link Sdn. Bhd

ABN

Not Applicable

Head Office Address

Lot 99045, Jalan Tun Perak 1/KU16
Perdana Industrial Park
Port Klang
Selangor
42000
Malaysia

Holds Certificate Number

BMP 694797

Standard

AS/NZS 4766:2006 Polyethylene storage tanks for water and chemicals.
AS/NZS 4766:2020 Rotationally moulded buried, partially buried and non-buried storage tanks for water and chemicals.

The products certified to version 2006 of the standard comply to all the material test requirements of Clause 5 of the standard 4766:2006
The products certified to version 2020 of the standard comply to all the material test requirements of Clause 2 of the standard 4766:2020

Model	BSI Review Date	Description: AS/NZS 4766:2006
Rotational Moulding Powder	18/04/2019	PL6338 Rotational Moulding Powder in colours: Basalt Beige – 1 Black BM Beige BM Storm Blue UV BM Wheat CB Heritage Red CB Merino CB Rivergum Classic Cream Cove Desert Haze Earthtone Gully Jasper Light Grey Loft

First Issued: 2019-05-09

Latest Issue: 2024-06-12

Expiry Date: 2029-05-08

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The use of this certificate and of the Benchmark Product Certification mark trademark is subject to the Client complying with the BSI Mark Requirements, and Terms and Conditions. BSI Group ANZ Pty Ltd, Suite 1, Level 1, 54 Waterloo Road, Macquarie Park, NSW 2113
The validity of this certificate can be checked at website: www.bsi-global.com/clientdirectory and the JASANZ website: www.jas-anz.org/register. This certificate remains the property of BSI and must be returned upon its request

Benchmark Certificate

No. BMP 694797

Schedule

Model	BSI Review Date	Description: AS/NZS 4766:2006
Rotational Moulding Powder	18/04/2019	PL6338 Rotational Moulding Powder in colours: Mangrove Metal Grey P TK Slate Grey Rivergum Shale Grey Smooth Cream Tank White Terrain Tuscan Red Wallaby Wheat UV Slip

First Issued: 2019-05-09

Latest Issue: 2024-06-12

Expiry Date: 2029-05-08

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Benchmark Certificate

No. BMP 694797

Schedule

Model	BSI Review Date	Description: AS/NZS 4766:2020
Rotational Moulding Powder	14/12/2023	PL6338 Rotational Moulding Powder in colours: Tank Slate Grey Merino Beige CB Rivergum CB Slate Grey Mist Green Heritage Red Tank Beige Dark Grey Smooth Cream

First Issued: 2019-05-09

Latest Issue: 2024-06-12

Expiry Date: 2029-05-08

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Benchmark Certificate

No. BMP 694797

Certification Administration Details

Technical File Reference:

Certificate Amendment Record

Issue date	Comments	BSI Review No.
May 2019	First Issue	SMO 8992034
Dec 2023	Second Issue	SMO 30076677
June 2024	Recertification and renewal	SMO 3782023

First Issued: 2019-05-09

Latest Issue: 2024-06-12

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