
TEST REPORT



SAFETY BARRIERS FOR SWIMMING POOLS



CLIENT – GLASS HARDWARE AUSTRALIA PTY LTD

PRODUCT – POLARIS POLYMER HINGE

TESTED BY

AZUMA DESIGN PTY LIMITED

AZT0197.26

NATA ACCREDITED LABORATORY NO. 15147

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Test results in this report are relevant only to the sample tested

1 Customer Requirements

To test the pool fence sample according to AS 1926.1:2024 – Part 1: Safety barriers for swimming pools. Only the applicable tests for this type of sample shall be carried out.

2 Test Sample Information

2.1 General Information

Product Name/Number	Polaris Polymer Hinge
Customer	Glass Hardware Australia Pty Ltd
Address	6/4 Stockyard Place, West Gosford NSW 2250
Azuma Test Number	AZT0197.26
Date of Test	09/07/2026 – 22/07/2026
Sample Condition	Sample supplied and installed by Customer
Overall Size	1108 mm (Width) x 1673 mm (Height)
Test Sample Description	Aluminium Framed Round Picket Gate with 10 Pickets. Gate installed with a vertical magnetic latch and two hinges. Hardware is installed to 50 x 50 mm aluminium tube posts. Posts are installed into a timber substrate.

2.2 Barrier

No barrier fencing as part of the installed sample

2.3 Gate

Material		Aluminium
Overall Dimensions	Horizontal	38 mm x 25 mm x 975 mm
	Vertical	Ø16 mm x 1197 mm x 10 Pickets
Gap between Vertical Elements (< 100 mm)		71 mm
Spacing between Vertical Elements		87 mm
NCZ Horizontal Elements (> 900 mm)		1175 mm
Total Product Height Greater than 1200 mm		Panel is 1200 mm + 67 mm gap
Gap between bottom of barrier and finished ground level (< 100 mm)		67 mm

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Azuma Design Pty Limited
38 Redfern Street Wetherill Park, NSW, 2164 Australia +61(02) 9604 0255
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2.4 Posts

Material	Aluminium
Overall Dimensions	50 mm x 50 mm x 1450 mm
Base Plate (if applicable)	100 mm x 135 mm x 10 mm (1 hole per corner)
Drawing Supplied	Not Supplied
Fixing Method	4 off 6.4 mm x 50 mm Coach Screw per post
Spacing between Posts	1010 mm

2.5 Hardware

Latch Product Name	Magnalatch®
Latch Manufacturer	D & D Technologies
Latch Position	90 mm from top of Gate, Latch Pull 1640 mm from finish floor
Latch Type	Magnetic
Hinge Product Name	Polaris Polymer Hinge
Hinge Manufacturer	Glass Hardware Australia Pty Ltd
Number of Hinges	2
Hinge Positions	65 mm from top and 205 mm from bottom
Hinge Type	Spring / Hydraulic / Other
NCZ of Hinges (must be > 900 mm)	925 mm

3 Strength and Rigidity of Barrier Openings

Not requested by customer for testing

4 Strength of Posts and Footings

Informative - Not requested by customer for testing

5 Strength of Fencing Components

Not requested by customer for testing

6 Flexible Materials & Components

Not applicable to the test sample supplied

7 Strength Test for Rigid Components of Gate Units

Not requested by customer for testing

8 Durability of Gate Units

Tested in accordance with AS1926.1, Appendix F.

Number of Operations the sample completed								25,000 cycles		
Does the gate still comply with clause 2.4 after test completed								Yes		
The force required to release the latch at the start of the test								14 N		
Cycle Count	2500	5000	7500	10,000	12,500	15,000	17,500	20,000	22,500	25,000
Closes at 25 mm Opening	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Latches resting on Latch Mechanism	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
The force required to release the latch at the end of the test								16 N		
Any damage to the gate, hinges, latching device or gate posts at the end of the test								Nil		
Result								Pass		

9 Additional Testing for Gate Units

From AS 1926.1 - 2012 - Section 3.4 - Closing and Latching of Gates.

Gate Closes under natural weight	Yes
Gate opened and 25 kg placed 100 mm from locking stile	Yes
Gate closed and 25 kg placed 100 mm from locking stile	Yes
Result	Pass

10 Conclusion and Signatories

10.1 Conclusion

From the results achieved, it is evident that the sample satisfied the tested requirements as per AS1926.1:2024 Part 1: Safety barriers for swimming pools.

10.2 Signatories

Tested By: Ash Horne

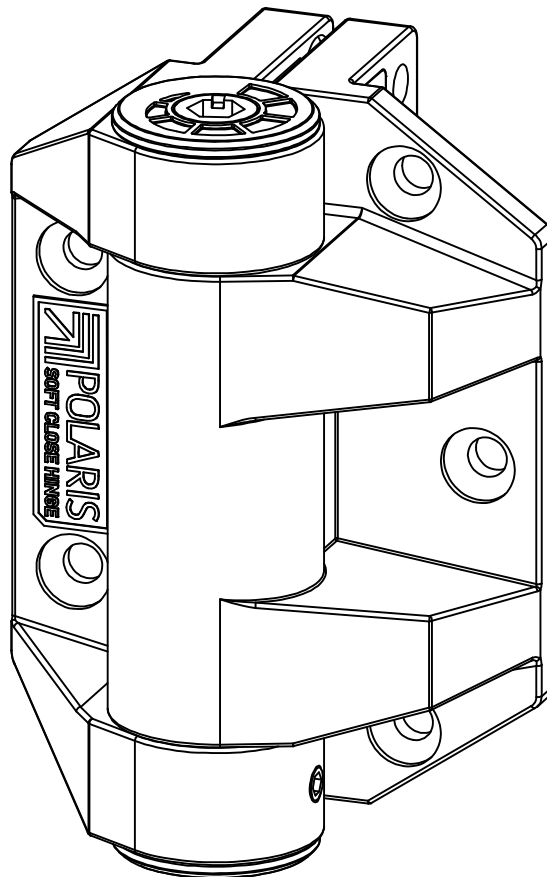
Signature: 

Date: 22/07/2026

END OF REPORT

POLY HINGE

SOFT CLOSE SPRING HINGE



FINISHES AND FUNCTIONS

- HEAVY DUTY
GLASS FILLED NYLON
- BLACK OR WHITE VERSIONS
- SIMPLE *QUIK-ADJUST*
RATCHET SYSTEM
- SOFT CLOSING
- NON-HOLD OPEN
- ADJUSTABLE SPRING
FORCE



MAX 12kg



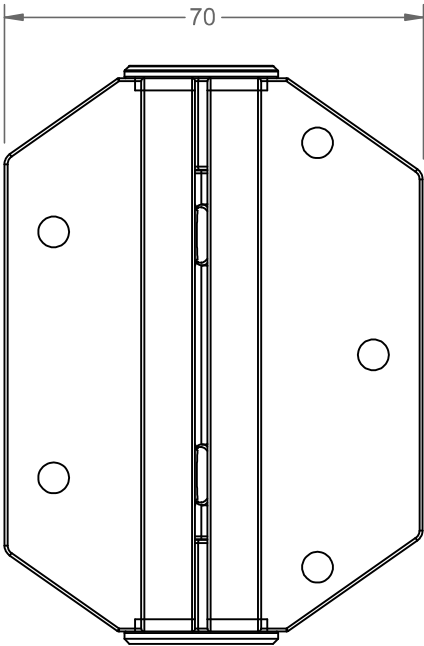
— 10°C
+ 50°C



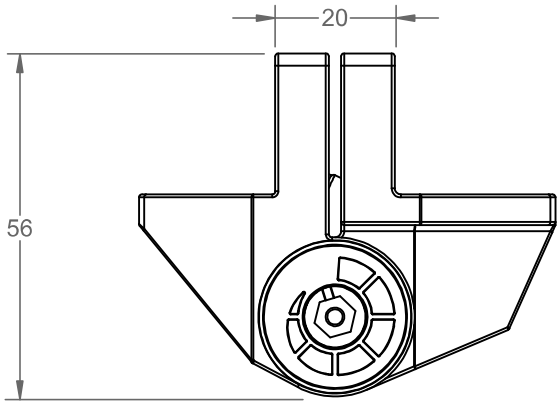
170°

POLY HINGE ADVANTAGES

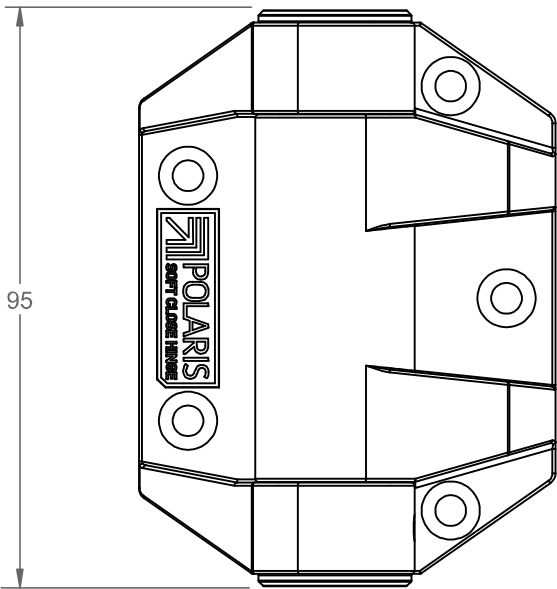
- SELF-CLOSING SAFETY HINGE FOR LIGHT WEIGHT POOL FENCING
- TO BE USED WITH CHILD PROOF SAFETY LATCH
- COMPLIES WITH AUSTRALIAN STANDARDS FOR POOL GATE HARDWARE
- NATA ACCREDITED AND INDEPENDENTLY TESTED TO 25 000 CYCLES
(NATA = NATIONAL ASSOCIATION OF TESTING AUTHORITIES AUSTRALIA)



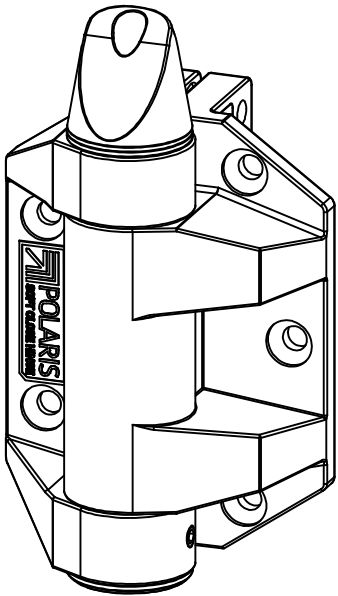
REAR VIEW



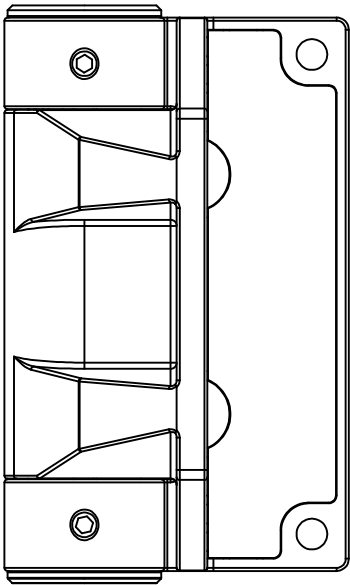
TOP VIEW



FRONT VIEW



INSTALLED SAFETY CAP



SIDE VIEW

POLYMER HINGE

FOR ALUMINIUM & LIGHT-WEIGHT GATES



The Polaris Polymer Soft Close Hinge was made with aluminium and light-weight metal gates in mind. Utilising our patented POLARIS COMFORT CLOSE™ hinge technology the Polymer hinge is constructed of a highly engineered, UV-Stabilized polymer composite creating a strong and robust yet economical soft closing product.

Versatile with use in both new installs or utilise to RETROFIT directly to your existing slamming metal gate. Featuring our "Quik-Adjust" Ratchet cap for simple speed adjustment and soft-close dampening for complete customization of closing force. Tested and Australian Pool compliant certified to 25,000 cycles.

Information supplied by customer

POLYMER HINGE

SOFT CLOSE RETROFIT

Safety Caps included

SKU PHS 

SKU PHS 



-
- Patented Soft Closing Hinge Designed for Outdoor Use
 - Both Self Closing and Soft Closing from any Position
 - QUIK-ADJUST ratchet cap for simple speed adjustment
 - RETROFITs noisy, slamming aluminium gates
 - 100% Australian invention -Designed & tested
 - Quick and Easy to Insall - D.I.Y
 - Tested to 25,000 continuous cycles

Information supplied by customer

Global Award Winning Hinge

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