



Certificate No:
TAS0000354

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Weathertight Door

with type designation(s)
SLD A2 Aluminum, SLD C2 Composite, SLD S2 Stainless steel

Issued to

Libra-Plast A/S
HAREID, Norway

is found to comply with

DNV rules for classification – High speed and light craft
DNV rules for classification – Ships

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2021-10-07**

This Certificate is valid until **2026-10-06**.

DNV local station: **Norway Newbuilding**

for **DNV**

Approval Engineer: **Grzegorz Wolski**

.....
Håvard Helling
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 251

Revision: 2021-03

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Product description

SLD A2

Weathertight single leaf door available in different sizes with straight or 110 mm radiused corners.

Closing by separate toggles on door types HSC.T/TR and single operated quick-acting closing system on door types HSC.C/CR.

Door leaf made of Divinycell core with either GRP, aluminium, or stainless-steel laminate with aluminium framing.

Coaming made from aluminium, steel or stainless steel.

Hinges made from aluminium or stainless steel.

Toggles and quick-acting closing system made from stainless steel.

Seal made from neoprene rubber.

Optional portlight with diameter Ø = 250 mm or square / rectangular window as listed. Glazing material of toughened safety glass with thickness 10 mm fitted in an aluminium frame. Optional deadlight may be fitted.

Size	No of toggles [t] and hinges [h]								Max window size	Max design pressure	
Light opening	HSC.T/TR Separate toggles				HSC.C/CR Quick-acting				Light opening	HSC. T/TR	HSC. C/CR
Width x Height [mm x mm]	Pos 1		Pos 2		Pos 1		Pos 2		Width x Height [mm x mm]	[kN/m2]	
	t	h	t	h	t	h	t	h			
500 x 1400	2	2			3	2			Na	34	22
600 x 1400	2	2			3	2			300 x 450	34	22
700 x 1400	2	2			3	2			400 x 450	34	22
800 x 1400	4	2			Na		3	2	450 x 450	34	22
900 x 1400	4	2			Na		3	2	450 x 450	22	14
1000 x 1400	4	2			Na		3	2	450 x 450	16	10
600 x 1600	5	3	4	2	Na		3	2	300 x 450	34	22
700 x 1600	5	3	4	2	Na		3	2	400 x 550	34	22
800 x 1600	5	3			Na		3	2	450 x 650	34	18
900 x 1600	5	3			Na		3	2	450 x 650	22	14
1000 x 1600	5	3			Na		3	2	450 x 650	16	10
600 x 1800	Na		4	2	Na		3	3	300 x 450	34	22
700 x 1800	Na		4	2	Na		3	3	400 x 550	34	22
800 x 1800	Na		5	3	Na		3	3	450 x 650	34	18
900 x 1800	Na		5	3	Na		3	3	450 x 650	22	14
1000 x 1800	Na		5	3	Na		3	3	450 x 650	16	10
600 x 2000	Na		4	2	Na		3	3	300 x 450	34	22
700 x 2000	Na		4	2	Na		3	3	400 x 550	34	22
800 x 2000	Na		5	3	Na		3	3	450 x 650	34	14
900 x 2000	Na		5	3	Na		3	3	450 x 650	22	10
1000 x 2000	Na		5	3	Na		3	3	450 x 650	16	6.5
800 x 2200	Na		5	3	Na		3	3	450 x 650	34	14
900 x 2200	Na		5	3	Na		3	3	450 x 650	22	10
1000 x 2200	Na		5	3	Na		3	3	450 x 650	16	6.5

Pos 1 and Pos 2 relates to position 1 and position 2 according to ILLC 1966

Na = not applicable

Application/Limitation

The weathertight doors are found to comply with:

- DNV-RU-SHIP July 2018 Pt.3 Ch.12 Sec.2 [4] for Weathertight doors and Sec.6 for doors with installed windows or scuttles.
- DNV-RU-HSLC December 2015 Pt.3 Ch.6 Sec.3. for the maximum design pressures as specified above.

The door has been Type Approved with respect to weathertightness only, i.e. fire integrity has not been considered.

The doors shall not be fitted in bulkheads where it is required that steel doors shall be used i.e. in galley, engine casing, etc. which may be considered as a space of greater fire risk.

The door shall not be fitted in a bulkhead where the design pressure is higher than indicated in the table above.

Dimensions of the light opening of the doors can be smaller than shown on the drawings, provided that scantlings, maximum distance between the cleats and fabrication method and material are maintained.

The Type Approval does not cover the supporting structure of the doors, which is subject to approval.

Interface showing door frame and bulkhead shall be submitted for case-by-case approval by yard/end user.

Particular consideration shall be given if located in highly stressed areas or in areas critical to fatigue from global hull loads.

From the strength and tightness point of view cylinder locks may fitted in the door. Depending on the location there could be restrictions preventing the use of locks in the doors, to be evaluated for the specific cases.

The complete installation shall be function and leak tested according to DNV-RU-SHIP-Pt.2 Ch.4 Sec.8 July 2017.

A door with window may not protect openings into enclosed superstructures or below freeboard deck.

A door with side scuttle/window is to be fitted with a dead light if located in a position where dead light is required for windows and side scuttles.

Type Approval documentation

Drawing No. A-3-00067 Rev.A dated 09 August 2013 from manufacturer.

Drawing No. LX-3-00776 Rev.A dated 06 February 2016 from manufacturer.

Tests carried out

The test of the product was carried out on 04 December 2020 in presence of DNV surveyor.

Marking of product

The product is to be marked with manufacturer's name or brand, DNV Type Approval Certificate No., type designation, size of the door and whether or not it is fitted with side scuttle and dead light.

Periodical assessment

DNV surveyor has the permission to perform Certification Retention Survey at any time during the validity period of this certificate. Periodical assessment shall be done bi-yearly with a time window of +/- 3 months.