

APPROVAL OF MANUFACTURER CERTIFICATE

This is to certify:

That

Evonik Performance Materials GmbH
Kirschenallee
64293 Darmstadt, Germany

is an approved manufacturer of
acrylic plastic

in accordance with
DNV GL rules for classification – Underwater technology

and the following particulars:

Product	Grade(s)	Dimensions
Acrylic Castings	PLEXIGLAS ® 0Z00	10 mm ≤ t ≤ 250 mm; max 8x3 m t = Thickness
Acrylic Spherical Sector Windows up to 180° including		
Spherical Sector Windows with Square Edge		
Acrylic Hemispherical Windows with Equatorial Flange		

The manufacturer has an appropriate quality-assurance system, which has been additionally subjected to a specific assessment for acrylic plastic in accordance with the European Pressure Equipment Directive 2014/68/EU in its valid version and has shown the capability for the manufacture of above mentioned products. Furthermore he has shown the capability of manufacturing acrylic material for windows and Type 1 custom castings according to the requirements of ASME PVHO-1-2012, Section 2, Article 3.

This certificate is valid under consideration of following remarks:

- **The certification acc. to ISO 9001 has to be maintained.**
- **The mechanical strength may be proven by determination of the Vicat- Softening Temperature. The requirements of the applied standard have to be observed.**
- **Proof of at least one comparison of the Vicat-Softening Temperature against the conventional strength analysis of the same material p. a. has to be shown to DNV GL.**
- **The remarks of the GL Approval with Ref. No. 11-152144 have to be observed.**
- **For each batch test certificates have to be issued covering all required terms of above mentioned applicable rules and standards**

Manufacturer approved by this certificate is accepted to deliver according to DNV GL, DNV, GL rules Pressure Equipment Directive and ASME PVHO-1. Materials to be applied to DNV GL classed object shall fulfill the material requirements in the applicable DNV GL class rules.

Issued at **Hamburg** on **2016-07-21**

for **DNV GL**

This Certificate is valid until **2019-06-21**.

DNV GL local station: **Hamburg**
Pressure & Underwater Technology

Approval Engineer: **Karsten Hagenah**

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Harald Pauli
Head of Section