

TYPE APPROVAL

Certificate No.:
TA-DNVGL-CP-0084-05879-0

Issued:
2020-08-03

Valid until:
2025-08-02

Issued for:

Sandwich Core Materials

with type designation(s)

Procore 150, Procore 200

Issued to:

Shanghai Yueke New Materials Co., Ltd.

Room 2201-2202, Building A, No.2, Lane 58 Xinjian East Road, Minhang District, Shanghai, 201100, China

According to:

DNVGL-SE-0436:2018-04 Shop approval in renewable energy and

DNVGL-CP-0084:2016-03 Type approval – Sandwich core materials

DNVGL-SE-0441:2016-06 Type and component certification of wind turbines

如需要相关数据请联系我司

相关销售人员或者在我司网站留言。

Based on the documents listed in Annex 1.

This Type Approval consists of this page and Annex 1 which is integral part of the approval.

Any significant change in design and / or quality of the material will render this Type Approval invalid.

Copenhagen, 2020-08-03

For DNV GL Renewables Certification

Vestergaard, Bente
Service Line Leader

Shanghai, 2020-08-03

For DNV GL Renewables Certification

Hou, Xue
Project Manager

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Product description and application

PET foam core material for sandwich constructions

Approved variants / layer structure

Procure 150, Procure 200

Type Approval documentation

Technical data sheet(s): TDS-V20_Procure150-200_EN, Submit on 2020-07-01

Test report(s): R-L2019106a.Rev00. EN, Issued on 2019-09-10
 R-L20191082d.Rev01. EN, Issued on 2020-06-02
 R-L2020105b.Rev00. EN A1, Issued on 2020-06-29

Safety data sheets: MSDS_PET150-200_EN, submitted on 2020-11-18

Inspection report(s): Workshop Inspection Report Core Materials Signed Issued on 2019-03-14

Quality control documentation: ISO9001:2015 certificate, CERT-0129632, Issued on April 10, 2019 and valid until 2022-04-11,

Material Properties

Properties	Test Method	Procure 150	Procure 200	Unit	Remark
Density	ISO845	160.367	211.144	kg/m ³	mean
Tensile strength(σ_b)	ASTM C297	2.242	4.749	Mpa	mean
Tensile modulus(E_b)	ASTM C297	160.396	222.562	Mpa	mean
Compressive strength (σ_b)	ISO844	3.007	4.600	Mpa	mean
Compressive modulus(E_b)	ISO844	167.526	238.838	Mpa	mean
Shear strength(τ_{23})	ISO1922/ASTM C273	1.577	1.633	Mpa	mean
Shear modulus (G_{23})	ISO1922/ASTM C273	47.464	65.06	Mpa	mean
Shear strength	ASTM C293	/	2.446	Mpa	mean

Note (Direction 2: Weld direction / Direction 3: Extrusion direction)

ASTM C273 for Procure 150 shear test is not the test standard required in DNVGL-CP-0084 but is acknowledged by DNV GL.

Limitation(s)

Any significant changes in design and/or quality of the material will render the approval invalid.

Approved Production Sites

Jiangsu Yueke New Materials Co., Ltd

located at No.75, Yingbin Road, Yanhai Economic and Development Zone, Jianggang Town, Dongtai, Jiangsu, China.

Last workshop inspection: 2019-03-12

Next workshop inspection due: 2022-03-12

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Periodical assessment

2.5 years after this type approval issued, the client shall inform DNV GL about any modifications in production. An intermediate inspection might be needed based on the implemented changes.