



Confirmation of Product Type Approval

Company Name: FIP - FORMATURA INIEZIONE POLIMERI S.P.A.

Address: LOCALITA PIAN DI PARATA 16015 CASELLA (GE), CASELLA (GE), Italy, 16015

Product: Thermoplastic Pipe, Fittings and Joints

Model(s): TEMPERFIP 100 PVC-C Pipes, Fittings and Valves

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	18-GE1775635-PDA	27-NOV-2018	26-NOV-2023
Manufacturing Assessment (MA)	19-GE3651034	01-APR-2019	31-MAR-2024
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3 - Type Approved, unit certification not required

Intended Service

Class III piping systems for non-essential services such as salt and freshwater systems including bilge, ballast, deck wash, sanitary and cooling water systems, scuppers.

Description

PVC-C pipes, valves and fittings with seals in EPDM, FPM or PTFE.

Ratings

From DN10 to DN300, PN6 to PN16.

For details refer to attachment.

Service Restrictions

1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
2. Production tests to be carried out as per 4-6-3/9 and 4-6-3/19 of the ABS Steel Vessels Rules.
3. Usage limited to applications where "no fire endurance test" is required by 4-6-3/ Table 1 of the ABS Steel Vessels Rules.
4. The valves are not to be used as ship side valves.
5. Detailed drawings of piping system for each application on board are to be submitted for review.
6. Acceptability of flame spread tests performed in accordance with ASTM D635 may be subject to

approval by the Administration of the vessel's Registry.

7. Not to be used for any installation within tanks or other locations which may be subject to a head of liquid on the outside of the pipe.
8. Not to be used to convey fluids with a conductivity of less than 1000 pico-siemens per meter, nor for installation in hazardous areas (regardless of conveyed fluid)
9. Pipes and fittings assembly is to be carried out in accordance with Manufacturer's specification.
10. The scope of type Approval is to comply with MSC.1/Circ.1221 dated 11 December 2006.

Comments

The Manufacturer has provided a declaration about the control of, or the lack of asbestos in this product.

Notes, Drawings and Documentation

PVC-C DK 0 PVC-C DK - data sheet

PVC-C fittings 0 PVC-C fittings data sheet

PVC-C pipe 0 PVC-C pipe data sheet

PVC-C VM 0 PVC-C VM data sheet

2014CS011270-1 PVC-C pipes Fire test at Rina Laboratories dated 26 Jun 2014

2014CS011270-3 PVC-C fittings-valves Fire test at Rina Laboratories dated 26 Jun 2014

LT test PVCC diaphragm valves LT18-2017 0 Crushing test at FIP dated 12 Mar 2017

LT test PVCC diaphragm valves LT19-2017 0 Crushing test at FIP dated 12 Mar 2017

PVCC FITTING-VALVE VICAT 02-2018 0 Vicat Test at FIP dated 22 Feb 2018

PVCC PIPE VICAT 01-2018 0 Vicat Test at FIP dated 21 Feb 2018

PVCC PIPE IMPACT TESTS 2017 0 Impact test report at FIP dated 15 Dec 2017

PVCC PIPE LT TESTS 2017 0 LT pipe PVCC test report at FIP dated 15 Dec 2017

PVCC PIPE ST TESTS 2017 0 ST pipe PVCC test report at FIP dated 15 Dec 2017

PVCC PIPE-FITTINGS-VALVES WATER ABSORPTION 0 water absorption PVCC pipe-fittings-valves test report at FIP dated 02 Apr 2014

PVCC PIPE-FITTINGS-VALVES WEATHERABILITY 0 wheatherability pvcc pipe fittings valves test report at FIP dated 03 Apr 2018

PVC-C_properties 0 pvcc properties

PVCC_PVCU PIPE-FITTINGS-VALVES TENSILE TESTS 0 tensile test pvcc pipe fittings valves test report at FIP dated 05 Sept 2014

PVCC PVCU PIPE EXT LOAD TESTS-1 2017 0 PVC PVCC ext load pipe at FIP dated 19 Dec 2017

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 26/Nov/2023 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

ABS Rules

2018 Rules for Conditions of Classification, 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2018 Steel Vessel Rules 4-6-3/5, 4-6-3/7, 4-6-3/9, 4-6-3/19

2018 Steel Vessel Rules Under 90 Meters (295 Feet) in Length Rules 4-4-2/7

2018 Offshore Supply Vessel Rules 4-6-3

2018 Guide for Building and Classing Yachts 4-4-2/73

2018 Rules for Conditions of Classification of High Speed Crafts, 1-1-4/11.9, 1-1-A2, 1-1-A3, which covers the following:

2018 High Speed Craft Rules 4-4-2/7

International Standards

ISO 15493 Ed. 2015

EU-MED Standards

NA

National Standards

NA

Government Standards

NA

Other Standards

NA



Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 16-Mar-2021 2:03

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and

Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.