



Confirmation of Product Type Approval

Company Name: SPEARS MANUFACTURING COMPANY

Address: 15853 OLDEN STREET SYLMAR CA 91342 United States

Product: Thermoplastic Pipe, Fittings and Joints

Model(s): EverTUFF® CPVC Pipe and Fittings

Endorsements:

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	23-2486310-1-PDA	23-JAN-2025	28-DEC-2028
Manufacturing Assessment (MA)	21-4588822	08-JAN-2021	09-FEB-2026
Product Quality Assurance (PQA)	NA	NA	NA

Tier

3 - Type Approved, unit certification not required

Intended Service

Marine & Offshore Pressure Applications for non-essential Systems including Fresh Water, Sea Water, Potable Water, brine services requiring no fire endurance testing or electrical conductivity. Piping to be used in non-hazardous areas only. Note: Spears® EverTUFF® marine schedule 80 pipe & fittings in sizes 1/2" through 1-1/4" is suitable for use in vacuum flush sanitary piping, black & gray water systems, drains, sanitary and vent applications.

Description

CPVC Schedule 40/80 Pipe and Schedule 80 Fittings

Sizes: 1/2" through 12"

Sizes 1/2" to 1 1/4" suitable for vacuum applications (vacuum flush and drains)

Ratings

See "pdf" attachment for a Pressure Rating Table and the de-rating factors for higher temperatures.

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. Not to be used in fire main or areas classified as "hazardous" in accordance with 4-8-4/27 of the Marine Vessel Rules and 4.3.6 of the Mobile Offshore Unit Rules.
3. This material has not been tested for fire endurance and therefore can only be used in services/locations indicated as 0, no fire endurance testing required, in accordance with Marine Vessel

Rules 4-6-3/Table 1 and Mobile Offshore Unit Rules 4-2-2/Table 2.

4. This material is not considered electrically conductive, and therefore cannot be used in hazardous areas or with nonconductive fluids in accordance with Marine Vessel Rules 4-6-3/5.15 and Mobile Offshore Unit Rules 4-2-2/7.5.8.

5. Where plastic pipes are to be utilized for any installation within tanks or other locations which may be subject to a vacuum condition inside the pipe or a head of liquid on the outside of the pipe, external pressure is to be considered. The pipe is to be designed for an external pressure of not less than the sum of the pressure imposed by the maximum potential head of liquid outside the pipe plus full vacuum of 14.5 psi (1 bar) inside the pipe. The maximum external pressure for a pipe is to be determined by dividing the collapse test pressure by a safety factor of 3. This collapse pressure may be verified experimentally or determined by a combination of testing and calculation methods. These details are to be submitted to ABS before installation of the pipe, for ABS approval on a case by case basis.

6. The collapse testing has been done for 1/2" through 1-1/4" CPVC Schedule 80 Pipe (see attached).

7. Not to be used for compressed air or gas.

8. Installers are to be ASME B31.3 marine qualified.

9. To be used with EverTUFF® marine cement and primer.

10. Detailed drawings of piping system for each application on board are to be submitted for review.

Comments

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

2. Additional Guidance on Hanger Spacing, Pressure De-rating as Temperature Increases and other Data available on additional information link.

3. Fittings with Metal Inserts or added Fiber Reinforcement may have other limitations.

4. Piping made from this marine compound has passed IMO FTP Code Annex 1, Part 2 and Part 5 adopted on 3 December 2010.

5. This product has a USCG Approval No. 164.141/45/0 Dated 12 September 2021 and Expires 12 September 2026.

6. Please confirm flame spread test acceptability with the flag administration.

7. All pipes and fittings are to be permanently marked with identification including pressure rating, design standard to which the pipe or fitting is manufactured, and the material with which the pipe or fitting is made.

Notes, Drawings and Documentation

Drawing No. Additional Ratings, Additional Ratings, Revision: -, Pages:

Drawing No. Collapse Pressure Tests, Collapse Pressure Test Piping, Revision: -, Pages:

Drawing No. USCG 164.141/45/0 , USCG Approval, Revision: -, Pages:

Drawing No. COC 116, EverTUFF CPVC SCH 40 & 80 Marine, Revision: -, Pages:

Drawing No. 01.21604.16.2008, SWRI Test Report - Fire Performance , Revision: -, Pages:

Drawing No. COC 009, CPVC Chemical Waste Drainage System, Revision: -, Pages:

Drawing No. Spears Data Book, Chemical Resistance Data for Pressure Piping, Revision: -, Pages:

Drawing No. PDA Application_PDA-10Dec24-YP-180_PDA #23-2486310-PDA, 23-2486310-PDA-DUP,

20-2053063-PDA, 20-2053063-PDA-DUP Revision_10Dec2024_\$7,358, PDA Application_PDA-10Dec24-YP-180_PDA #23-2486310-PDA, 23-2486310-PDA-DUP, 20-2053063-PDA, 20-2053063-PDA-DUP Revision_10Dec2024_\$7,358, Revision: -, Pages

Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 28/Dec/2028 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

2025 Rules for Conditions of Classification: 1-1-4/7.7, 1-1-A3 and A4, which covers the following:

2025 Rules for Building and Classing Marine Vessels: 4-6-3/Table 1, 4-6-3/5.1, 4-6-3/5.3, 4-6-3/5.7, 4-6-3/5.13.1, 4-6-3/7.3, 4-6-3/11.3.1, 4-6-3/9

2025 Rules for Conditions of Classification – Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2025 Rules for Building and Classing Mobile Offshore Units: 4-2-2/7.5.1, 4-2-2/7.5.2, 4-2-2/7.5.4, 4-2-2/7.5.5, 4-2-2/7.5.7(a), 4-6-3/7.9

2025 Rules for Building and Classing Facilities on Offshore Installation - 3-5/1

International Standards

IMO International Code for Application of Fire Test Procedures (FTP Code), Annex 1, Part 2 and Part 5 , Adopted on 3 December 2010

EU-MED Standards

NA

National Standards

NSF/ANSI STD 14 (2022) & 61 (2022)

ASTM D1784 - 2020

ASTM F441/ F441M - 2023

Government Standards

USCG Approval Number: 164.141/45/0 Dated 12 September 2021 and Expires 12 September 2026

Transport Canada, Vessel Fire Safety Regulations. Products meet the requirements of Annex I of the FTP Code (Part 2 Smoke And Toxicity, and Part 5 Surface Flammability) required by the Vessel Fire Safety Regulations, Section 114 (Smoke Generation Potential and Toxicity) and Section 226 (Plastic Piping).

Other Standards

NA



A handwritten signature in blue ink, appearing to read "Joseph W. White".

Corporate ABS Programs
American Bureau of Shipping
Print Date and Time: 19-Feb-2025 1:58

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.