



CERTIFICATE NUMBER

01-LD214642/1-PDA

DATE

14 March 2006

ABS TECHNICAL OFFICE

London Ship Engineering

CERTIFICATE OF Design Assessment

This is to Certify that a representative of this Bureau did, at the request of
Durapipe UK

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate. It will remain valid as noted below or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: FRP and Plastic Pipes and Fittings

MODEL: Corzan PVC-C Pipes, Fittings and Valves

ABS RULE: 2006 Steel Vessel Rules 1-1-4/3.7, 4-6-3/5.1, 4-6-3/5.3, 4-6-3/5.7, 4-6-3/5.9 and 4-6-3/5.13

OTHER STANDARD: ASTM D635, ASTM D648, ASTM D1599; IMO Resolution A753(18);

AMERICAN BUREAU OF SHIPPING


John L. Morgan

Engineering Type Approval Co-ordinator

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NOTE: Glynwed, IPEX, Inc. and Durapipe are sister companies within the ETEX group. The manufacturing processes use common standards for raw material and dimensional tolerances.

Product: FRP and Plastic Pipes and Fittings

Model: Corzan PVC-C Pipes, Fittings and Valves

Intended Service:

Seawater and freshwater systems, inert gas systems, sanitary, drains, scuppers, vent pipes, sounding, cargo lines, control air, service air (non essential), brine, as per Table 4-6-3/1 of the ABS Steel Vessel Rules.

Description:

PVC-C pipe and fittings in sizes (mm): 16, 20, 25, 32, 40, 50, 63, 75, 90, 110, 160; Ball check valve sizes (mm): 20, 25, 32, 40, 50, 63; Butterfly valve sizes (mm): 63, 75, 90, 110, 140, 160; Scorpion VK double union ball valve sizes (mm): 16, 20, 25, 32, 40, 50, 63, 75, 90, 110; Diaphragm valve sizes (mm): 20, 25, 32, 40, 50, 63, 75, 90, 110

Ratings:

Maximum internal pressure: 10 bar.

Maximum external pressure for pipes: 12 bar (3.3 bar for size 160 mm).

Maximum service temperature 80°C.

Service Restrictions:

1. Usage limited to applications where "no fire endurance test" required by Table 4-6-3/1 of the ABS Steel Vessel Rules.
2. Not to be used in fire mains.
3. Not to be used for connections to the vessels shell.
4. Not to be installed in areas classified as "hazardous" by 4-8-4/27 of the ABS Steel Vessel Rules.
5. Unit Certification is not required for this product.

Comments:

1. All pipes and fittings are to be permanently marked with identification including pressure rating, the design standard the pipe or fitting is manufactured in accordance with, and the material with which the pipe or fitting is made.
2. All valves are to be hydrostatically tested by the manufacturer and are to bear the trademark of the manufacturer legibly stamped or cast on the exterior of the valve as well as the pressure rating.
3. Acceptability of flame spread tests performed in accordance with ASTM D635 may be subject to approval by the Administration of the vessel's Registry.

Term of Validity:

This product/model is covered under Product Design Assessment (PDA) Certificate # 01-LD214642/1-PDA, dated 14/Mar/2006. This PDA Certificate expires Mar of 2011. It will remain valid for the 5 years from date of issue or until the Rules or specifications used in the assessment are revised (whichever occurs first).

STANDARDS**ABS Rules:**

2006 Steel Vessel Rules 1-1-4/3.7 4-6-3/5.1, 4-6-3/5.3, 4-6-3/5.7, 4-6-3/5.9 and 4-6-3/5.13

National:

ASTM D635, ASTM D648, ASTM D1599

International:

IMO Resolution A753(18)

