



Certificate of Type Approval (RQS)

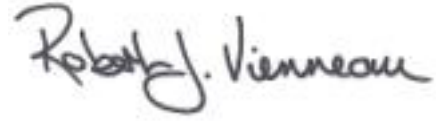
This is to certify that Georg Fischer AG
has met the requirements of ABS Product Type Approval for
Plastic Pipes, Fittings and Valves
Model Name(s): "INSTAFLEX" PB

Presented to:

Georg Fischer AG
Ebnatstrasse, 111
Schaffhausen
CH-8201
Switzerland

Intended Service:	Hot and cold fresh water, potable water, chilled water and compressed air systems.
Description:	Polybutylene plastic pipes in sizes O.D. 16x2.0mm, 20x2.0mm, 25x2.3mm, 32x3.0mm, 40x3.7mm, 50x4.6mm, 63x5.8mm, 75x6.8mm, 90x8.2mm and 110x10mm; valves and fittings
Ratings:	Pipe sizes O.D. 16mm to 90mm Maximum Pressure: 10 Bar, Maximum Temperature: 70°C (Short periods up to 95°C) Pipe Size O.D. 110mm Maximum Pressure: 7 Bar, Maximum Temperature: 70°C (Short periods up to 95°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) Installation and joining procedures are to be to the satisfaction of the attending Surveyor. 3) Unit Certification is not required for this product.
Comments:	1) 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. 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 test performed in accordance with ASTM D635 may be subject to approval by the Administration of the vessel's Registry. 4) For every installation, details of operating medium, maximum and operating temperatures, pressures, pipe sizes and pipe supports and fixing arrangements are to be submitted for review. 5) Pipes for potable and drinking water are to be disinfected prior to use as per manufacturer's Technical Manual, November 2001.
Notes / Documentation:	
Term of Validity:	This product/model is covered under Product Design Assessment (PDA) Certificate # 04-LD465502-PDA, dated 28/Sep/2004. This PDA Certificate expires Sep of 2009. 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).
ABS Rules:	2004 Steel Vessel Rules 1-1-4/3.7, 4-6-3/5.1, 4-6-3/5.3, 4-6-3/5.7, 4-6-3/5.11, 4-6-3/5.13, 4-6-3/5.15 and 4-6-3/5.17
National Standards:	ASTM D 635-91, UL 94, BS 5955 Pt 8, BS 6920 and BS 7291.
International Standards:	ISO 9080, ISO 75-2004 and ISO 3127

Government Authority:
EUMED:
Others:



Manager, ABS Programs

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 was printed. Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. Limited circumstances may allow only Prototype Testing to satisfy Type Approval. The approvals of Drawings and Products remain valid as long as the ABS Rule, to which they were assessed, remains valid. ABS cautions manufacturers to review and maintain compliance with all other specifications to which the product may have been assessed. Further, unless it is specifically indicated in the description of the product; Type Approval does not necessarily waive witnessed inspection or survey procedures (where otherwise required) for products to be used in a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS. 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.