

TYPE APPROVAL CERTIFICATE

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the DNV GL Type Approval System.

Certificate No. **81 180 - 95 HH**

Company **GIRPI**
Rue Robert Ancel
76700 Harfleur, FRANCE

Product Description **THERMOPLASTIC PIPES AND FITTINGS**

Type **HTA System (PVC-C)**

Environmental Category **None**

Technical Data / **TECHNICAL DATA:**
 Range of Application

Size Range : 16 [mm] up to 160 [mm] outside pipe diameter
Nominal Pressure: PN 25 / PN 16
Temperature range: 0 [°C] up to + 80[°C]
M.A.W.P. [bar]: According to pressure tables specified by the manufacturer

RANGE OF APPLICATION

Sanitary piping systems systems acc. To IMO Res. 753 (18), Appendix 4, arranged within accomodation-, service-, control spaces, cofferdams, void spaces, pipe tunnels, ducts and further locations where fire endurance test accoeding to the IMO Res. A.753 (18) is not required.

REMARKS: PRODUCTION PLACE, LIMITATION, INSTALLATION and REMARKS see page 2

Test Standard **Test standard IMO Resolution A.753 (18):1993, excluding toxicity, smoke generation and fire endurance test. Test report of flame spread test according to IMO Res. A. 653(16).**

Documents **-Test report of surface low flame spread test acc. To Res. A.653(16) dated 27.04.1995**
-Technical data and specifications of the PVC-C pipes.
-Manuel Quality Hygiene Security Environment, dated: 2012-11-15
-ISO 9001:2008, dated: 2016-12-31
-Audit Report, Valid Until: 2018-11-27
-DNV GL Ref.-No.: 15-064169

Remarks **Product approved by this certificate is accepted for installation on all vessels classed by DNV GL.**

Valid until **2020-09-26**

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Hamburg, 2016-02-02

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PRODUCTION PLACE

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LIMITATION

Approved only for installation of piping systems onboard ships which will not be exposed to vacuum inside the pipes and not exposed to external pressure outside the pipes. Not approved for installations inside tanks and tanks containing flammable liquids.

INSTALLATION

For installation the instructions of the manufacturer and IMO Res. 753 (18) are to be observed as applicable. Through watertight bulkheads and fire divisions DNV GL type approved pipe penetrations are to be used.

REMARKS

For the use on passenger vessels National Authority requirements may have to be observed.

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