



NIPPON KAIJI KYOKAI

Certificate

Certificate No.09HG0001PP

OF APPROVAL

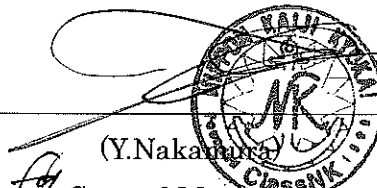
Article : Plastic Pipes
Product Description : GREEN THREAD Pipe Series:
GT175,GT175-C, GT250, GT250-C
Manufacturer : Fiber Glass Systems (Suzhou) Co.Ltd.
Specifications and
Condition for use : See APPENDIX

THIS IS TO CERTIFY that the above mentioned Plastic pipes are found to comply with the requirements of Chap.6, Part 6 of "GUIDANCE FOR THE APPROVAL AND TYPE APPROVAL OF MATERIALS AND EQUIPMENT FOR MARINE USE" and other relevant requirements of the Society.

This certificate will remain in force until 15th November, 2014

Issued at Tokyo on the 16th November, 2009.

NIPPON KAIJI KYOKAI


(Y. Nakamura)
General Manager

Hull Department

Appendix to certificate of type approval

I . Particulars of PVC pipes

Type		GT175	GT175-C	GT250	GT250-C
Resin		Epoxy	Epoxy	Epoxy	Epoxy
Max Working Temperature (°C)		110	110	110	110
Nominal Pressure	Internal (bar)	12	12	18	18
	External (bar)	1.5	1.5	3.8	3.8
Category* ¹		-	D	-	D
Fire Endurance* ²		L3	L3	L3	L3

*1; Category Symbol "D" means that this material has electrically conductive.

*2; Fire Endurance Level L3: Fire endurance test (IMO Res.A753(18) Appendix 2) in wet conditions, 30 min

- The piping system is not tested with respect to Flame Spread characteristics.

Range of application : fitted on deck and within tanks, cofferdam, pipe tunnels and duct

II . On PVC pipes, the followings should be marked.

- (1) Trade name and/or product name
- (2) NK' s approval, such as "NK-Approved"
- (3) Nominal pressure
- (4) Symbol "D", "L3"
- (5) Material of which pipe or fitting is made

III . Particulars, manufacturing method and material of PVC pipes should be same as those in the original approval tests. Any alternation to the above items should be informed to the Society for approval. Our surveyor reserves the right to access to the manufacturing facilities and may require further test and/or examination where deemed necessarily.

IV . PVC pipes should be tested after manufacture in accordance with Annex D12.1.6-2 "Shop Tests" of "GUIDANCE FOR THE SURVEY AND CONSTRUCTION OF PLASTIC PIPES".

V . PVC pipes should be subject to the periodical examination at interval of five years after the date of approval.
