

Proposed specification for RICWIL Low-Temp Hi-Gard™

PREINSULATED ABOVEGROUND PIPING SYSTEM

CLAUSE	REMARKS									
1. GENERAL Aboveground piping system shall be factory preinsulated and prefabricated RICWIL Hi-Gard and shall consist of steel carrier pipe insulated with rigid polyurethane foam which is protected with outer jacket. The preinsulated pipes shall be of a product of manufacturer who has been engaged in manufacturing preinsulated pipes at least for the last 10 years. The system components shall conform to the following specifications.										
2. MATERIAL DESCRIPTION	Specify carrier pipe.									
2.1. Carrier Pipe: The carrier pipe shall be in either of the following. (a) JIS G 3454 STPG 38 SCH 40 Seamless black (b) ASTM A53 GR.B Standard weight Seamless black All pipe ends shall be protected by plastic caps or plastic sheet cover.										
2.2. Insulation: Insulation shall be rigid polyurethane machine injected and foamed in place completely filling the annular space between carrier pipe and jacket. Physical properties of polyurethane foam shall be as follows. (a) Density : Minimum 45 kg/m ³ (2.8cb/CFT) (b) Thermal Conductivity : English .14 BTU/(HR)(SQ.FT)(°F/IN) @ 73°F Metric .017 Kcal/m. h.°C @ 23°C (c) Compressive Strength : Minimum 2.0 kg/cm ² (29 psi) (d) Closed Cell content : Minimum 90% (e) Insulation thickness shall be determined considering condensation foaming on the outer jacket under following climatic condition. <table><tr><td>AMBIENT TEMP.</td><td>RH%</td><td>FLUID TEMP.</td></tr><tr><td>35°C</td><td>90</td><td>6°C</td></tr><tr><td>30°C</td><td>95</td><td>6°C</td></tr></table> Min. insulation thickness shall be as follows. Pipesize up to NB100 mm (4'') : 40 mm (1 ½'') NB125 mm (5'') and larger : 50 mm (2'')	AMBIENT TEMP.	RH%	FLUID TEMP.	35°C	90	6°C	30°C	95	6°C	Specify if higher density is required.
AMBIENT TEMP.	RH%	FLUID TEMP.								
35°C	90	6°C								
30°C	95	6°C								
	Insulation thickness may vary depending on geographical area.									