ASTM A500 Type E, Grade A, B, C Pipe

SCOPE
Covers bare and black electric resistance welded, Grade A, B, C pipe. Light-weight pipe is suitable for joining by welding and by rolled grooving while the standard-weight pipe is suitable cut or rolled groove, threading, and welding. Produced to latest revision of ASTM A500/A500M.

BLACK PIPE
The average thickness of black water base paint is 1 mil on the outside surface of the pipe.

HYDROSTATIC TESTING and NONDESTRUCTIVE ELECTRIC TESTING
Not required.

END FINISH
Plain end: Ends are beveled top a angle of 30°, + 5° – 0° with a root face of 1/16 ± 1/32; Threaded: To ANSI Standard B1.20.1; Couplings: To ASTM Standard A865; Rolled groove: CSA B242 standard.

CHEMICAL REQUIREMENTS
Composition, maximum % (grade A, B): Carbon: 0.26, Manganese: 1.35, Phosphorus: 0.035, Sulfur: 0.035;
Composition, maximum % (grade C): Carbon: 0.23, Manganese: 1.35, Phosphorus: 0.035, Sulfur: 0.035.

TENSILE REQUIREMENTS
GRADE A: Tensile strength: minimum 45000 psi (310 MPa), Yield strength: minimum 33000 Psi (230 Mpa), Elongation: minimum 25%;
GRADE B: Tensile strength: minimum 58000 psi (400 MPa), Yield strength: minimum 42000 Psi (290 Mpa), Elongation: minimum 23%;
GRADE C: Tensile strength: minimum 62000 psi (425 MPa), Yield strength: minimum 46000 Psi (315 Mpa), Elongation: minimum 21%;

FLATTENING TEST
As a test for quality of the weld, position of the weld at 90° from the direction of force and flatten until the OD is 2/3 of the original outside diameter. No cracks shall occur along the inside or outside surface of the weld.

DIMENSIONS AND WEIGHTS (plain end)

<table>
<thead>
<tr>
<th>NPS</th>
<th>OD inches</th>
<th>S10 wall inches</th>
<th>S40 wall inches</th>
<th>S80 wall inches</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2</td>
<td>0.840</td>
<td>0.083</td>
<td>0.109</td>
<td>0.147</td>
</tr>
<tr>
<td>3/4</td>
<td>1.050</td>
<td>0.083</td>
<td>0.113</td>
<td>0.154</td>
</tr>
<tr>
<td>1</td>
<td>1.315</td>
<td>0.109</td>
<td>0.133</td>
<td>0.179</td>
</tr>
<tr>
<td>1 1/4</td>
<td>1.660</td>
<td>0.109</td>
<td>0.140</td>
<td>0.191</td>
</tr>
<tr>
<td>1 1/2</td>
<td>1.900</td>
<td>0.109</td>
<td>0.145</td>
<td>0.200</td>
</tr>
<tr>
<td>2</td>
<td>2.375</td>
<td>0.109</td>
<td>0.184</td>
<td>0.238</td>
</tr>
<tr>
<td>2 1/2</td>
<td>2.875</td>
<td>0.120</td>
<td>0.203</td>
<td>0.276</td>
</tr>
<tr>
<td>3</td>
<td>3.500</td>
<td>0.120</td>
<td>0.216</td>
<td>0.300</td>
</tr>
<tr>
<td>3 1/2</td>
<td>4.000</td>
<td>0.120</td>
<td>0.226</td>
<td>0.318</td>
</tr>
<tr>
<td>4</td>
<td>4.500</td>
<td>0.120</td>
<td>0.257</td>
<td>0.337</td>
</tr>
<tr>
<td>5</td>
<td>5.563</td>
<td>0.134</td>
<td>0.258</td>
<td>0.375</td>
</tr>
<tr>
<td>6</td>
<td>6.625</td>
<td>0.134</td>
<td>0.280</td>
<td>0.432</td>
</tr>
</tbody>
</table>

PERMISSIBLE VARIATIONS IN WALL THICKNESS, IN OUTSIDE DIAMETER, IN WEIGHT PER FOOT
Minimum wall thickness at any point shall not be more than 10% under the specified nominal wall thickness.
Maximum wall thickness at any point shall not be more than 10% over the specified nominal wall thickness.
Pipe diameter NPS 1 1/2 and under: ± 0.50%.
Pipe diameter NPS 2 and over: ± 0.75%.

PRODUCT MARKING
- Each pipe can be stenciled to show the manufacturer name,"Made in Canada", the grade of pipe (ASTM A500), the kind of pipe (E for electric-resistance welded), the Grade (A, B or C), the size, length, the letters "HT" if hydrostatically tested, and date.
- Bar coding is acceptable as a supplementary identification number.
- If the pipe is not stenciled, the product identification will be on the tag attached to each bundles of pipes.

All information contained herein is accurate as know at the time of publication. Nova Tube Inc. reserves the right to change product specifications without notice and without incurring obligation (January 4th, 2017)
Prepared by: Martin Bolduc, B.Eng

Nova Tube Inc.  Tel: +1 514-789-0511
5870, rue St-Patrick  Toll free: 1-866-953-7751
Montréal, P.Q. Fax: +1 514-366-3176
Canada, H4E 1B3