

*Cloris 8' mc*

Tex-Tube Company  
1503 N. Post Oak  
Houston, Texas 77255

Purchase Order: C 289 158200 7B0

Sales Order: S046680

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| Heat Number | Vendor Name                         | Description                                       | Mfg Date:               |
|-------------|-------------------------------------|---|-------------------------|
| 23014742 ✓  | Big River Steel<br>Osceola, AR, USA | API5L X52 8-5/8"X.250<br>WALL(22.38#)BARE,DRL,PEB | 03/21/23<br>22.38 lb/ft |

CHEMICAL ANALYSIS

| C           | Mn        | P     | S     | Ni    | Cr    | Cu    | Mo    | Si    | Ti    | V     | Nb    | B      | Ca     | CE  |
|-------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-----|
| Ladle-0.060 | 0.560     | 0.009 | 0.001 | 0.060 | 0.040 | 0.090 | 0.018 | 0.150 | 0.001 | 0.003 | 0.013 | 0.0001 | 0.0033 |     |
| Al: 0.026   | SN: 0.005 | N:    |       |       |       |       |       |       |       |       |       |        |        |     |
| Chem -0.059 | 0.570     | 0.010 | 0.002 | 0.058 | 0.041 | 0.095 | 0.017 | 0.151 | 0.001 | 0.003 | 0.014 | 0.0001 | 0.0025 | .10 |
| Al: 0.026   | SN: 0.005 | N:    |       |       |       |       |       |       |       |       |       |        |        |     |
| Chem -0.081 | 0.580     | 0.010 | 0.002 | 0.059 | 0.041 | 0.095 | 0.017 | 0.154 | 0.001 | 0.003 | 0.015 | 0.0001 | 0.0028 | .12 |
| Al: 0.027   | SN: 0.005 | N:    |       |       |       |       |       |       |       |       |       |        |        |     |

MECHANICAL PROPERTIES:

YS (ksi): 63.4 TS (ksi): 71.9 WTS (ksi): 80.7 EL(%): 38% HRB : 86 Y/T(%): 0.88

CHARPY TEST RESULTS body

| Orientation:     | Transverse           | Specimen(s) | Energy(ft/lbs.) | L/E(mils) | % Shear |
|------------------|----------------------|-------------|-----------------|-----------|---------|
| Spec. Size(in.): | .394" x .197" x 2.16 | 1           | 79              | N/A       | 100     |
| Test Temp.(oF):  | 0                    | 2           | 69              | N/A       | 100     |
| Location:        | 3T90                 | 3           | 67              | N/A       | 100     |
|                  |                      | Average:    | 72              |           |         |

COMMENTS

MINIMUM HYDROSTATIC TEST PRESSURE (psi): 2,270 FOR 5 seconds

MANUFACTURED TO THE 46TH EDITION OF API 5L SPECIFICATION

MANUFACTURED IN THE USA

HIGH FREQUENCY WELDED PRODUCT

WELD SEAM ANNEALING AT 1600 DEGREES F. MINIMUM  
ULTRASONIC TESTED TO N-10 NOTCH 1/8 DRILLED HOLE

FLATTENING TEST PASSED

1.5 INCH T180 STRIP SPECIMEN

THIS MATERIAL MEETS : ASTM A53B-22, ASME SA53B-21 LATEST EDITION

API 5L PSL 2 GRADE X52M

MEETS HARDNESS REQUIREMENTS OF NACE MRO 175/ISO 15156-2, CLAUSE A.2.1.1

MEETS ISO 10474 3.1.B/EN 10204: 3.1 / STANDARDS ARE LATEST REVISION

STEEL SUPPLIER:Big River Steel-Osceola,AR,U.S.A

COIL MANUFACTURER:Big River Steel-Osceola,AR,U.S.A.

The above analyses and tensile properties  
are correct to the best of my knowledge  
and belief.

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Orginals to Follow