

Appendix B

1. 360 Meters

Steel Pipe Longitudinally Welded with ends beveled angle 30 degrees (both sides).

30" Outside Dia. x 0.5" wall thickness.

Grade and specification: API 5L grade B PSL1 or AWWA-B.

Each length: 11.50-11.80 Mtr.

Outside Coating: Bare.

Inside Coating: Bare

Pipe end protection: with hook-hold plastic/Metal caps.

Mill Test Certificate to EN 10204/3.1 according to API Standards 5LX including chemical and physical properties.

Manufacturer: European Only from the list below.

Eur1 certificate will be required.

2. 780 Meters

Welded steel pipes, material: API-5L-X52 PSL2

18" Outside Dia. x 0.406" wall thickness.

Longitudinally welded or seamless.

With ends bevelled angle 30 degrees (both sides).

HDPE Coating according to Din 30670, 4.0 mm thickness

In lengths of 12 meters.

Pipe end protection: with hook-hold plastic/Metal caps.

Testing and Acceptance:

- Mill test certificate to EN 10204/3.2 to API Standards 5LX including chemical and physical properties.
- 100% ultrasonic, X-ray and hydrostatic test reports.
- Third Part inspection made by LLOYDS.

Manufacturer: European Only from the list below.

EUR1 certificate will be required.

3. 444 Meters

Welded steel pipes, material: API-5L-X52 PSL2

18" Outside Dia. x 0.406" wall thickness.

Longitudinally welded or seamless.

With ends beveled angle 30 degrees (both sides).

In lengths of 12 meters.

Testing and Acceptance:

- Mill test certificate to EN 10204/3.2 to API Standards 5LX including chemical and physical properties.
- 100% ultrasonic, X-ray and hydrostatic test reports.
- Third Part inspection made by LLOYDS.

Coating:

External 3-layers extruded polypropylene coating (P.P.).

Minimum Thickness - 4.0 mm (ISO21809-1 Class A3). Included Fusion Bonded Epoxy, Copolymer Adhesive. Polypropylene as a whole complete system should conform to the requirements of the standard DIN 30678

(Polypropylene coatings for steel pipes) or standard NF-A-49711.

Requirements for testing coating:

- Vacant softening point (°C, ISO 306) - 145.
- Specific gravity (g/cm³) – 0.90 - 0.92.
- Hardness (Shore D) – 63.
- Indentation resistance at 23±5°C (mm) – 0.1.
- Electrical inspection (Holiday Detection) with Testing Voltage 20 kV minimum.
- Elongation at break (%) - 500.

The coating system will be applied after sandblasting cleaning of the pipe surface to Sa 2½ of the SVENSK STANDARD SIS 05-59 00 (ISO 8501-1)

The external coating shall be interrupted at a distance of 15 cm. from the pipe ends and shall be beveled at 30°

The manufacturer shall recommend:

- Method and materials to be used for field coating of joints and for coating repairs.
- Pipe ends prepared for field coating.

A recognized laboratory is required to test the pipe and coating materials supplied under this specification. Quality certificates issued by the laboratory will be fully complied with all requirements of standards and will be submitted to the purchaser.

Pipe Manufacturer: European Only from the list below.

Eur1 certificate will be required.

All Pipes must be manufactured exclusively by one (or more) of the manufacturers included in the list below:

- Salzgitter Mannesmann Line Pipe GmbH
- Tenaris S.A.
- Interpipe Limited
- Liberty Galaty
- Vallourec