

## Seamless Non-alloy Steel Tubes for Pressure Purposes with Specified Room Temperature

### Properties

#### Standard & Material

EN 10216-1 P235TR1 1.0254 (Steel Number)

EN 10216-1 P235TR2 1.0255 (Steel Number)

It specifies the technical delivery conditions for two qualities TR1 and TR2 of seamless tubes of circular cross section with specified room temperature properties made of non-alloy quality steel.

#### Chemistry Composition

C, % 0.16 max    Si, % 0.35 max

Mn, % 1.20 max    P, % 0.025 max

S, % 0.020 max    Cr, % 0.30 max

Ni, % 0.30 max    Cu, % 0.30 max

Mo, % 0.08 max    Nb, % 0.01 max

Ti, % 0.04 max    V, % 0.02 max

Cr+Cu+Mo+Ni, % 0.70 max

(above for both TR1 and TR2)

Al, % 0.02 min for TR2 only



#### Mechanical Properties

Tensile Strength, MPa 360-500

Yield Strength, MPa 235 min

Elongation, % 25 min

Wall Thickness: average wall thickness

Straightness: the deviation from straightness, of any tube length L shall not exceed 0.0015L.

Deviations from straightness over any one meter length shall not exceed 3 mm.

Developed Length: max 30 meters each length, +10mm/-0mm

Manufacture: the tubes made by cold drawn or hot rolled process.

Heat Treatment: the tubes are supplied in normalized or normalizing-formed delivery condition.

Inspection & Test: chemistry composition analysis, tensile test, NDT, surface inspection and dimension check for both TR1 and TR2. Impact test at 0°C for TR2 only.

Further Process: U bending tubes, fin tubes