

Galvanized pipes

Galvanizing is by hot-dipping in a completely automated plant in compliance with the UNI EN 10240 norm, which stipulates various levels of quality depending on the pipe application.

Galvanizing carried out by Tenaris conforms to level A.1, qualitatively the highest required by the European standards.

The zinc used is an electrolytic type, with 99.995% purity. Galvanized TenarisDalmine pipes employing the new 'lead-free galvanizing' technology conform to the EN 10240-A1 norm and the Department of Health Decree of 6 April 2004, no.174, regarding materials and objects used for distribution of water for human consumption.

Marking

Marking in black paint every 40 cm with the following:

TenarisDalmine senza piombo
lead free

EN 10255 SL1 EN 10240 A.1

TenarisDalmine senza piombo
lead free

EN 10255 SM EN 10240 A.1

SL1 light seamless tube series

SM medium seamless tube series



DVGW-Registrierungsbescheid
für Erzeugnisse der Wasserversorgung

Zertifizierungsstelle
Certification body

Überwachte Produkte
NW-7101AK2001
NW-7103AN2006



Galvanizing can also be done in accord with the American ASTM A53 standard

Tubes for pressure applications

EN 10216-1 Norm

MECHANICAL AND CHEMICAL CHARACTERISTICS

TYPE OF STEEL	MECHANICAL PROPERTIES			CHEMICAL COMPOSITION % (CAST ANALYSIS)						
	ULTIMATE TENSILE STRENGTH R_m	YIELD STRENGTH R_{eH}	ELONGATION A		C	Mn	Si	P	S	Al
	MPa*	MIN MPa*	MIN %	t	MAX	MAX	MAX	MAX	MAX	MIN
P235TR1	360 ÷ 500	235	25	23	0,16	1,20	0,35	0,025	0,020	-
P235TR2	360 ÷ 500	235	25	23	0,16	1,20	0,30	0,025	0,020	0,020

* Upon request different steel types in compliance with the norm can be supplied

Tolerances

On the outside diameter

$\pm 1\%$ o $\pm 0,5$ mm,
the greater of the two values

On wall thickness

For O.D. > 219,1 mm:
 $\pm 20\%$ when the
WT/O.D. relationship is ≤ 0.025
 $\pm 15\%$ when the
WT/O.D. relationship is > 0.025

Lengths

Normally supplied in
production lengths of from 4
to 8m

Different lengths must be
agreed upon

Surfaces

Usually supplied hot-finished,
without any surface
protection.

If requested, for O.D. up to
273mm, external epoxy resin
coating – Thermo – can be
supplied

Ends

Plain, cut perpendicularly to
the tube axis

Tests

Hydrostatic test at 70 bar or
equivalent nondestructive
electromagnetic test (Eddy
Current)

Documentation

If not requested otherwise
when placing the order, a 2.2
test certificate in compliance
with norm EN 10204 will be
issued

DIMENSIONS AND WEIGHT

OUTSIDE DIAMETER mm	W.T. mm	NOMINAL WEIGHT kg/m	OUTSIDE DIAMETER mm	W.T. mm	NOMINAL WEIGHT kg/m
33,7	2,6	1,99	159	4,5	17,15
42,4	2,6	2,55	168,3	5,0	20,13
48,3	2,6	2,93	193,7	5,4	25,08
60,3	2,9	4,11	219,1	6,3	33,06
70	2,9	4,80	244,5	6,3	37,01
76,1	2,9	5,24	273	6,3	41,44
88,9	3,2	6,76	323,9	8,4	65,36
101,6	3,6	8,70	355,6	8	68,58
108	3,6	9,27	406,4	8,8	86,29
114,3	3,6	9,83	457	10	110,24
133	4	12,72	508	11	134,82
139,7	4,0	13,38	610	12,5	184,19