



BLACK LABEL EN 1057

formerly BS2871 Part 1 Table X

INTRODUCTION

The British Standard EN 1057 (brand name Black Label) specifies the requirements for copper tube in straight lengths to half hard and hard temper. The tube is manufactured from phosphorus deoxidised (non arsenical) copper alloy CW024A. Tube complying to this table is suitable for hot and cold water services, gas services, sanitation and central heating. This tube when buried should be factory plastic coated.



Nominal dimensions temper and max working pressures

Nominal outside diameter Ø mm	Wall thickness mm	Temper	Maximum working pressure bar*
15	0,7	R-250 half-hard	58
22	0,9	"	51
28	0,9	"	40
35	1,2	"	42
42	1,2	"	35
54	1,2	"	27
66,7	1,2	R-290 hard	26
76,1	1,5	"	29
108	1,5	"	20
133	1,5	"	16
159	2,0	"	18

*maximum working pressure for liquids or gases with a temperature not exceeding 65°C.

Tolerance on outside diameter

Nominal outside diameter Ø mm		Tolerance on nominal diameter (mm)	
over	up to and including	Applicable to mean diameter	Applicable to any diameter ²⁾
		all tempers	R250 (half hard) temper
6 ¹⁾	18	±0,04	±0,09
18	28	±0,05	±0,10
28	54	±0,06	±0,11
54	76,1	±0,07	±0,15
76,1	88,9	±0,07	±0,20
88,9	108	±0,07	±0,30
108	159	±0,2	±0,40

¹⁾ Including 6mm

²⁾ Including deviation from circular form

Tolerance on wall thickness

Nominal outside diameter Ø mm	Tolerances wall thickness e ¹⁾	
	e < 1 mm %	e ≥ 1 mm %
<18	±10	±13
≥18	±10	±15 ²⁾

¹⁾ Including deviation from concentricity

²⁾ ±10% for R250 (half hard) tubes of 35mm, 42mm and 54 mm diameter with a wall thickness of 1,2 mm

Note

Concentricity (uniformity of wall thickness) is controlled by tolerance on wall thickness.

Mechanical properties

Material temper		Nominal outside diameter Ø mm		Tensile Strength R _m MPa	Elongation A %	Hardness (indicative) HV5
EN 1173	Common term	min.	max.	min	min	VPN
R250	half hard	15	54	250	30	(75 - 100)
R290	hard	66,7	159	290	3	(min.100)

Note 1: Hardness figures in parentheses are not requirements of this standard but are given for guidance purposes only.

Note 2: MPa is equivalent to 1N/mm²



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APPROVAL

Black Label conforms to the requirements of the British Standards Institution and Wednesbury have earned the right to use the Kitemark as evidence of compliance of this tube to the British Standard EN 1057, and have Registered Firm Status to BS EN ISO 9001 : 2008 : FM 00452.

MARKING

Tube from 10mm to 159mm inclusive, is permanently die stamped 'STREAMLINE GB (Kitemark) EN 1057 Black Label Wednesbury and date of manufacture' at intervals of not more than 600mm.

JOINTING

These tubes are suitable for connecting by means of capillary or compression fittings to BS EN 1254, silver brazing, bronze or autogenous welding.

BENDING

Black Label tube can be bent with ease on bending machines, or with internal springs, provided they are of the correct size. Manufacturers of bending machines such as

Hilmor, Tubela, Consort, etc, are able to supply hand or free standing machines. Bending by spring is normally limited to a maximum size of 22mm diameter, but tight radii bends are not advised.

Weights

Size of Tube mm	No of Tubes per Handle Bundle	No of Tubes per Master Bundle	Bundles per tonne 5.8 m lengths	Kg per Metre
15	10	600	62	0,280
22	10	300	32	0,531
28	10	200	25	0,682
35	5	100	30	1,134
42	5	100	25	1,369
54	3	60	32	1,772
66,7	1	30	78	2,197
76,1	1	25	55	3,134
108	1	10	39	4,472
133	1	10	31	5,531
159	1	10	20	8,800

Based on theoretical weights

Lengths & Packaging

SPECIAL FINISHES	15	22	28	35	42	54	67	76	108		
Protec Blue	•	•	•	•	•	•					
Protec Green	•	•	•	•	•	•					
Protec Yellow	•	•	•	•	•	•					
Protec White	•	•	•	•	•	•	•	•	•		
Protec 2000 White	•	•	•	•	•	•					
Chrome Plated	•	•	•	•	•	•					
Degreased	•	•	•	•	•	•					
Degreased Oxygen	•	•	•	•	•	•					
Degreased Medical	•	•	•	•	•	•					

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