



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	R-290 hard	35
54	1,2	"	27
66,7	1,2	"	26
76,1	1,5	"	29
108	1,5	"	20
133	1,5	"	16
159	2,0	"	18
219	3,0	"	20
267	3,0	"	16

*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)	
		Applicable to mean diameter	Applicable to any diameter ²⁾
over	up to and including	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
159	267	±0,6	±1,5

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 Rm MPa	Elongation A %	Hardness (indicative) HV5
EN 1173	Common term	min.	max.	min	min	VPN
R250	half hard	15	35	250	30	(75 - 100)
R290	hard	42	267	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.

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

Weights

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.

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. Sizes 219mm and 267mm are ink-marked only.

JOINTING

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

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
219	1	1		18,202
267	1	1		22,247

Based on theoretical weights

Lengths & Packaging

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

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WHITE LABEL EN 1057

formerly BS2871 Part 1 Table Y

INTRODUCTION

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



Nominal dimensions and max working pressure

Nominal outside diameter Ø mm	Wall thickness mm	Maximum working pressure (Bar)		
		R250 Half Hard	R290 Hard	R220 Annealed
15	1,0	87	-	67
22	1,2	69	-	57
28	1,2	55	-	42
35	1,5	54	-	-
42	1,5	-	53	-
54	2,0	-	55	-
66,7	2,0	-	45	-
76,1	2,0	-	39	-
108	2,5	-	34	-

Tolerance on outside diameter

Nominal outside diameter Ø mm		Tolerance on nominal diameter (mm)	
		Applicable to mean diameter	Applicable to any diameter ²⁾
over	up to and including	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

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 Rm MPa	Elongation A %	Hardness (indicative) HV5 VPN
EN 1173	Common term	min.	max.	min	min	
R220	annealed	15	28	220	40	(40 - 70)
R250	half-hard	15	35	250	30	(75 - 100)
R290	hard	42	108	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



PROTEC COPPER TUBE EN 1057

INTRODUCTION

PROTEC is a brand name for Wednesbury Polyethylene coated copper tube. The copper tube coated with Polyethylene is to British Standard EN 1057.

This Standard specifies the requirements for copper tubes in straight lengths to half hard, hard temper or coils in the annealed condition.

The tube is manufactured from phosphorus deoxidised (non arsenical) copper alloy CW024A and the plastic to BS 3412. Tube complying to these tables is suitable for hot and cold water services, gas services, sanitation and central heating. These plastic coated tubes will withstand temperatures up to 95°C (203°F) with occasional peaks up to 110°C (230°F). The plastic is tightly extruded on to the copper tube in a seamless and continuous run, it is durable and more effective than some other methods of protection against environments which may be aggressive to the copper tube.



The plastic coatings are applied in various colours to identify its use in service. Blue and green for water, yellow ochre for gas and white for central heating.

APPROVAL

Wednesbury tube EN1057 conforms to the requirements of the British Standards Institution and has earned the right to use the Kitemark as evidence of compliance of these tubes to the British Standard BS EN 1057 and have Registered Firm status to BS EN ISO 9001 : 2008 : FM 00452.

MARKING

Tube from 15mm to 108mm inclusive is marked 'Wednesbury STREAMLINE GB (Kitemark) EN 1057' at intervals of 1000mm. The copper tube is permanently die marked every 600mm in a similar manner together with the date of manufacture, to the relevant Label.

SPECIAL FINISHES	15	22	28	35	42	54	67	76	108
Protec Green	•	•	•	•	•	•			
Protec Yellow	•	•	•						
Protec White	•	•	•	•	•	•	•	•	•