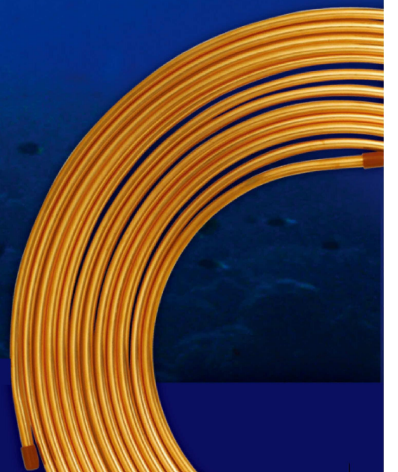


Seastar®

BS EN1057  15 x 0.7 TYPE X I-I Seastar SHIELDLINE PLUS Year / Month

BS EN1057  15 x 0.7 TYPE X I-I Seastar Year / Month

COPPER TUBE TO EUROPEAN STANDARD BS EN1057
AIR CONDITIONING & REFRIGERATION COPPER TUBE BS EN12735-1



BRITISH – EUROPEAN STANDARD BS EN1057 COPPER TUBE FOR WATER, GAS AND SANITATION

Seastar® Copper Tube is manufactured in accordance to BS EN1057 and BSi Kitemark licenced. It is manufactured under a Quality Assurance Scheme which conforms to Quality Requirements of BS EN ISO 9001. It is especially developed for use in both cold and hot drinking water system, sanitation, gas and general engineering application.

Seastar® 海星牌銅喉乃根據 ISO9001 國際標準嚴格生產，符合 BS EN1057 標準，並為 BSI KITEMARK 認可；適合冷熱食水裝置，氣體供應及一般工程系統等等；

Chemical Composition

ELEMENT	MINIMUM (%)	MAXIMUM (%)
Copper*	99.9	-
Phosphorus	0.015	0.040

* Including Silver (*包括銀)

Body Marking

Seastar® copper tubes are ink marked and incised as follows

Seastar® 銅喉墨印標記及刻印標記如下



Temper 銅喉硬度

Tube offers in half-hard temper for sizes 15mm, 22mm and 28mm. All other sizes from 35mm to 159mm inclusive are in hard temper. Other temper requirement is available upon request, subject to manufacturing capacity. Temper is identified as follow:

15mm 22mm 28mm 之銅喉為半退火處理，35mm 至 159mm 銅喉為未退火處理，如有特別要求，可於生產能力範圍內進行其他韌化處理，各類硬度標記列表如下

Common Term 一般名稱	Symbol	Temper No.
ANNEALED 已退火	By absence & symbol 無標記	R220
HALF HARD 半退火	By absence & symbol 以 I-I 標記	R250
HARD 未退火	By absence & symbol 無標記	R290

BRITISH-EUROPEAN STANDARD BS EN1057 - PLASTIC COATED COPPER TUBE

Seastar® tube has developed SHIELDLINE PLUS and SHIELDLAG PLUS insulated copper tubes for a range of plumbing applications. These products comply with BS EN1057 and cover in a resilient extruded polyethylene coating.

This polyethylene-covered tube is suitable for use in a variety of applications including: burying in corrosive soils, lying under floors and concrete (where approved), under plaster and brickwork, exposed and/or weathering environments. The insulating material will be softened at elevated temperatures and product should therefore not be used in installation operating continuously at temperatures above 90°C.

Seastar® 海星牌銅喉開發了 SHIELDLINE PLUS 和 SHIELDLAG PLUS 保溫隔熱層包膠銅喉，適用於一般水管系統用途，該產品包含不易磨損無縫高壓制的聚乙烯材料層覆膜加蓋在 BS EN1057 標準銅喉上。

帶聚乙烯層覆膜的銅喉有廣泛用途，可埋藏在腐蝕性的土壤中，地板下層和混凝土結構內(須獲批准)，也可藏於牆壁內，及適用如室外或風化環境中。該保溫層遇到高溫時會軟化，因此不適用於攝氏九十度以上的系統。

PLASTIC COATED TUBE MARKING

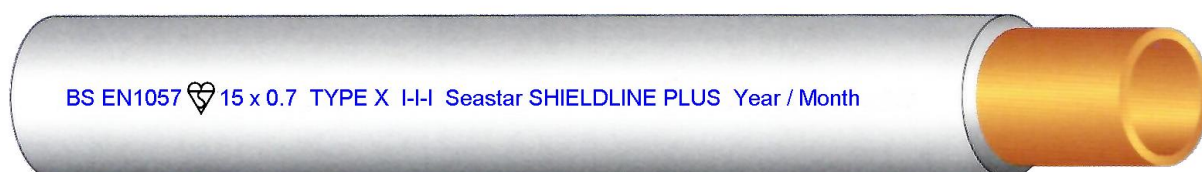
包膠銅喉

SHIELDLINE PLUS

SHIELDLINE PLUS has a tough, thin, solid and space-saving cover. This moisture resistant cover upgrades product's suitability for cold water application where tube may be concealed or exposed to weathering environment. This tube is also suitable for gas line installation.

SHIELDLINE PLUS 具有既薄又節省空間而不易磨損的塑料外層，這種防潮外層產品特別適用於隱藏或外露於風化性環境的冷水管，此外還適用於輸送氣體的管道裝置。

SHIELDLINE PLUS will be ink marked 冷水包膠銅喉會印上墨水字印



SHIELDLAG PLUS

SHIELDLAG PLUS has internal grooved cover and uses air trapped within the grooved to form a thermal barrier. It is suitable for both hot and cold water application, reducing heat loss and offering increased protection against possible pipe freezing.

SHIELDLAG PLUS 內置型隔離層是以保溫而形成隔熱層，適用於冷/熱水管。

SHIELDLAG PLUS will be ink marked 冷/熱水包膠銅喉會印上墨水字印



Seastar® COPPER TUBE TYPE X					
NOMINAL DIAMETER 標準直徑 (mm)	NOMINAL THICKNESS 標準直徑 (mm)	MAXIMUM WORKING PRESSURE 最大工作壓力			MASS/ LENGTH* (Kg/5.8M)
		ANNEALED 已退火	HALF HARD 半退火	HARD 未退火	
		(K Pa)			
6	0.6	10 200	13 300	16 100	0.53
8	0.6	7 500	9 700	11 800	0.72
10	0.6	5 900	7 700	9 300	0.92
12	0.6	4 800	6 300	7 600	1.11
15	0.7	4 500	5 800	7 100	1.63
18	0.8	4 300	5 600	6 700	2.24
22	0.9	3 900	5 100	6 200	3.09
28	0.9	3 100	4 000	4 800	3.98
35	1.2	3 300	4 200	5 100	6.61
42	1.2	2 700	3 500	4 300	7.98
54	1.2	2 100	2 700	3 300	10.33
66.7	1.2	1 700	2 000	2 700	12.81
76.1	1.5	1 800	2 400	2 900	18.24
108	1.5	1 300	1 700	2 000	26.04
133	1.5	1 000	1 400	1 700	32.15
159	2.0	1 200	1 500	1 800	51.18

Seastar® COPPER TUBE TYPE Y					
NOMINAL DIAMETER 標準直徑 (mm)	NOMINAL THICKNESS 標準直徑 (mm)	MAXIMUM WORKING PRESSURE 最大工作壓力			MASS/ LENGTH* (Kg/5.8M)
		ANNEALED 已退火	HALF HARD 半退火	HARD 未退火	
		(K Pa)			
6	0.8	14 400	18 800	22 300	0.68
8	0.8	10 500	13 600	16 100	0.94
10	0.8	8 200	10 600	12 600	1.20
12	0.8	6 700	8 700	10 400	1.46
15	1.0	6 700	8 700	10 400	2.28
18	1.0	5 500	7 200	8 500	2.77
22	1.2	5 300	6 900	8 400	4.07
28	1.2	4 200	5 500	6 500	5.24
35	1.5	4 100	5 400	6 500	8.19
42	1.5	3 400	4 500	5 400	9.90
54	2.0	3 600	4 700	5 600	16.95
66.7	2.0	2 800	3 700	4 500	21.09
76.1	2.0	2 500	3 300	3 900	24.15
108	2.5	2 200	2 900	3 400	42.99

Body Marking

Pancake Coil	SEASTAR size x wall EN12735-1
Pancake Coil	SEASTAR size x wall R410A EN12735-1
Straight Tube	Seastar EN12735-1 Cu DHP R290 size x wall

OUTSIDE DIAMETER		THICKNESS	SAFE WORKING PRESSURE	WEIGHT	R410A	Annealed (15M / 30M)	Hard (5.8M)
(inch)	(mm)	(mm)	(bar)	(Kg/M)	●	Coil	Straight Tube
1/4	6.35	0.51	71	0.083		★	
1/4	6.35	0.61	77	0.098		★	
1/4	6.35	0.71	91	0.112		★	★
1/4	6.35	0.81	106	0.126	●	★	★
1/4	6.35	0.91	121	0.139	●	★	★
3/8	9.52	0.51	45	0.129		★	
3/8	9.52	0.61	50	0.152		★	
3/8	9.52	0.71	59	0.175		★	★
3/8	9.52	0.81	68	0.198	●	★	★
3/8	9.52	0.91	77	0.219	●	★	★
1/2	12.70	0.51	33	0.174		★	
1/2	12.70	0.61	37	0.206		★	
1/2	12.70	0.71	43	0.238		★	★
1/2	12.70	0.81	50	0.270	●	★	★
1/2	12.70	0.91	57	0.300	●	★	★
5/8	15.87	0.61	29	0.261		★	
5/8	15.87	0.71	34	0.302		★	
5/8	15.87	0.81	39	0.342		★	
5/8	15.87	0.91	44	0.381		★	★
5/8	15.87	1.02	50	0.424	●	★	★
3/4	19.06	0.71	28	0.365		★	
3/4	19.06	0.91	36	0.462		★	★
3/4	19.06	1.14	46	0.572	●	★	★
3/4	19.06	1.22	50	0.609	●	★	★
7/8	22.23	0.91	31	0.543			★
7/8	22.23	1.14	39	0.673			★

OUTSIDE DIAMETER		THICKNESS	SAFE WORKING PRESSURE	WEIGHT	R410A	Annealed (15M / 30M)	Hard (5.8M)
(inch)	(mm)	(mm)	(bar)	(Kg/M)	●	Coil	Straight Tube
7/8	22.23	1.22	42	0.717			★
7/8	22.23	1.40	46	0.816	●		★
7/8	22.23	1.63	47	0.940	●		★
1	25.40	0.91	27	0.624			★
1	25.40	1.22	37	0.826			★
1	25.40	1.63	50	1.085	●		★
1-1/8	28.57	0.91	24	0.705			★
1-1/8	28.57	1.22	30	0.934			★
1-1/8	28.57	1.83	47	1.370	●		★
1-1/4	31.75	1.22	29	1.043			★
1-1/4	31.75	2.03	50	1.689	●		★
1-3/8	34.92	1.22	25	1.151			★
1-3/8	34.92	2.03	42	1.869	●		★
1-5/8	41.27	1.22	21	1.368			★
1-5/8	41.27	1.63	30	1.809			★
1-5/8	41.27	2.41	42	2.622	●		★
2-1/8	53.97	1.22	16	1.802			★
2-1/8	53.97	1.63	23	2.389			★
2-1/8	53.97	2.41	34	3.479			★
2-5/8	66.68	1.63	17	2.968			★
3-1/8	79.37	2.29	20	4.942			★
3-1/8	79.37	2.5	25	5.381			★

★Available item



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