

LEAD-FREE* PERFORMANCE BRONZE® FITTINGS

APPLICATIONS

- Specifically designed for use in applications that deliver water for human consumption; this includes commercial as well as residential construction

MATERIALS & CONSTRUCTION

- NIBCO lead-free wrought copper fittings are made from commercially pure copper mill products per ASTM B 75 Alloy C12200
- NIBCO lead-free dezincification-resistant (DZR) fittings are made of high quality lead-free Performance Bronze® alloy per ASTM B 584 Alloy C87850 or C87600
- NIBCO lead-free forged fittings are made from C69300, an EcoBrass® alloy.

DESIGN CRITERIA

- Third party certified to Annex G of NSF/ANSI 61
- Manufactured in NIBCO ISO registered facilities

* Weighted average lead content
≤ 0.25%



NIBCO® wrought copper solder fittings manufactured in Stuarts Draft, Virginia, are generally 3rd party certified to Annex G of NSF/ANSI 61[†]. For our complete offering of wrought copper fittings, please consult the NIBCO Copper Fittings catalog at www.nibco.com or visit us at www.nibcoleadfree.com.

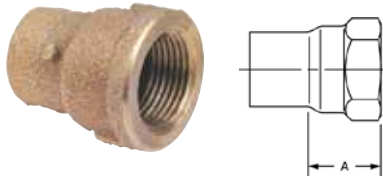


Look for this symbol on NIBCO lead-free packaging.

[†]NSF-61-G certification pending on some items. Consult NIBCO Customer or Technical Services for more information.
EcoBrass® is a registered trademark of Mitsubishi Shindoh Co., LTD.

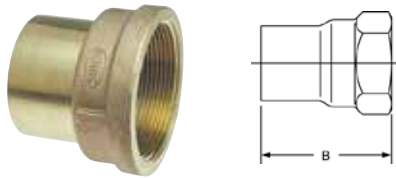
Lead-Free* Performance Bronze® Fittings

ADAPTERS



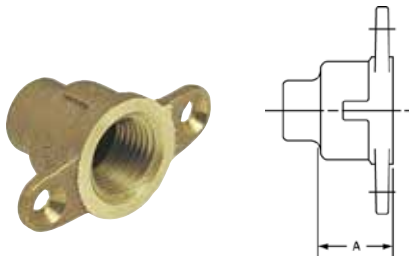
703-LF
Lead-Free Adapter C x F

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES
1/2 x 1	0.28	15/16
3/4 x 3/8	0.17	23/32
1 x 1 1/2	0.68	1 1/16



703-2-LF
Lead-Free Adapter Ftg x F

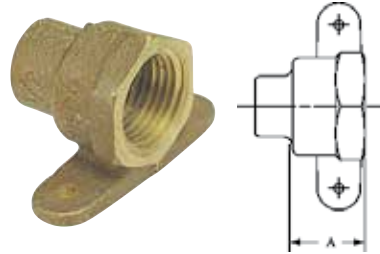
NOM. SIZE	APPROX. NET WT./LBS.	DIM. B INCHES
1/2 x 1/4	0.11	17/32
3/4 x 1/2	0.13	19/16
1 x 3/4	0.38	1 31/32



703-5-LF
Lead-Free Special Drop Adapter C x F

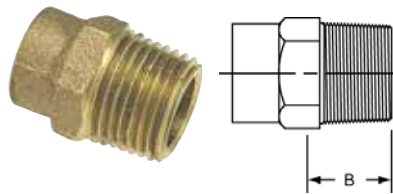
NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES
1/2	0.16	3/4
3/4	0.24	31/32

ADAPTERS *cont.*



703-5B-LF
Lead-Free Drop Adapter C x F

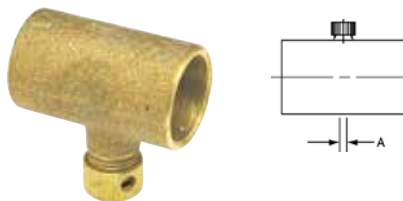
NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES
1/2	0.15	3/4



704-LF
Lead-Free Adapter C x M

NOM. SIZE	APPROX. NET WT./LBS.	DIM. B INCHES
3/4 x 1 1/4	0.38	17/32

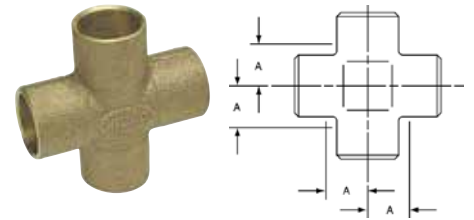
COUPLINGS



701-D-LF
Lead-Free Drain Coupling w/Cap C x C

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES
1/2	0.08	1/4
3/4 (E)	0.09	1/4

CROSSES



735-LF
Lead-Free Cross C x C X C X C

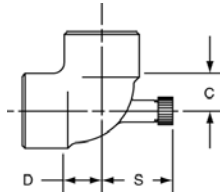
NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES
1/2	0.14	7/16
3/4	0.28	9/16
1	0.54	3/4

* Weighted average lead content ≤ 0.25%

(E) Forged fitting

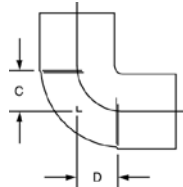
Lead-Free* Performance Bronze® Fittings

ELBOWS



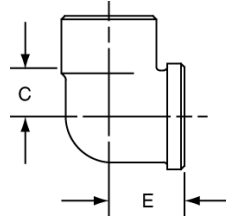
705-D-LF
Lead-Free Vent
Elbow w/Cap C x C

NOM. SIZE	APPROX. NET WT./LBS.	DIMENSIONS INCHES		
		C	D	S
1/2 (F)	0.09	1/2	1/2	3/4
3/4 (F)	0.15	9/16	9/16	29/32
1	0.31	3/4	3/4	1



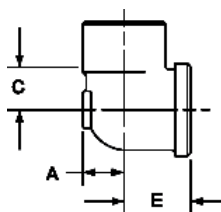
707-LF
Lead-Free 90° Elbow C x C

NOM. SIZE	APPROX. NET WT./LBS.	DIM. C INCHES	DIM. D INCHES
1 1/4 x 3/4	0.34	5/8	7/8
1 1/2 x 1	0.55	11/16	1



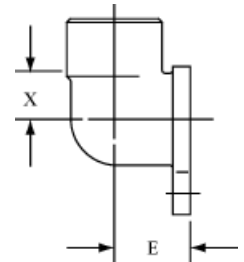
707-3-LF
Lead-Free 90° Elbow C x F

NOM. SIZE	APPROX. NET WT./LBS.	DIM. C INCHES	DIM. E INCHES
1/4	0.06	13/32	9/16
3/8	0.09	7/16	11/16
1/2 (F)	0.12	7/16	13/16
1/2 x 1/4	0.10	3/8	23/32
1/2 x 3/8	0.09	1/2	13/16
1/2 x 3/4	0.18	11/16	15/16
3/4 (F)	0.18	21/32	31/32
3/4 x 1/2 (F)	0.16	9/16	15/16
3/4 x 1	0.36	7/8	1 1/8
1	0.47	25/32	1 1/4
1 x 1/2	0.32	9/16	1 1/8
1 x 3/4	0.40	11/16	13/16
1 1/4	0.67	1	1 1/2
1 1/2	0.90	1 1/8	1 5/8
2	1.46	1 3/8	1 15/16



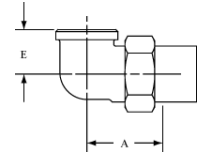
707-3-5-LF
Lead-Free 90° Drop Ear Elbow C x F

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES	DIM. C INCHES	DIM. E INCHES
1/2 (F)	0.15	13/32	9/16	7/8
1/2 x 3/8 (F)	0.11	3/8	1/2	3/4
3/4 (F)	0.31	17/32	21/32	15/16
3/4 x 1/2	0.24	17/32	9/16	15/16
1	0.49	5/8	25/32	1 1/4



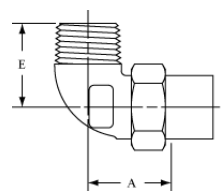
707-3-5A-LF
Lead-Free 90° Hy-Set Elbow C x F

NOM. SIZE	APPROX. NET WT./LBS.	DIM. X INCHES	DIM. E INCHES
1/2 (F)	0.16	1/2	7/8



707-3-6-LF
Lead-Free 90° Union Elbow C x F

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES	DIM. E INCHES
1/2	0.31	1 1/8	7/8
3/4	0.48	1 7/16	1



707-4-6-LF
Lead-Free 90° Union Elbow C x M

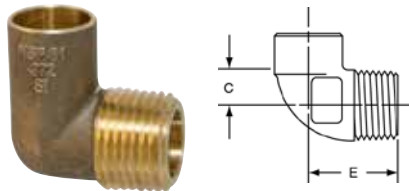
NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES	DIM. E INCHES
3/8	0.20	15/16	1 3/16
1/2	0.30	15/16	1 1/2
3/4	0.49	1 7/32	1 13/16
1	0.71	1 13/32	1 5/8

* Weighted average lead content ≤ 0.25%

(F) Forged fitting

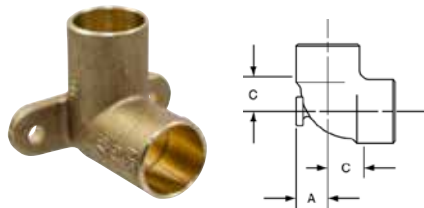
Lead-Free* Performance Bronze® Fittings

ELBOWS *cont.*



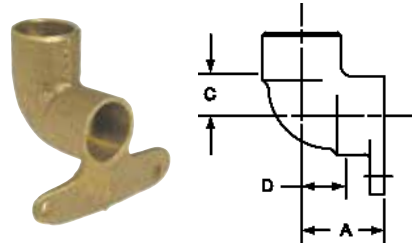
707-4-LF
Lead-Free 90° Elbow C x M

NOM. SIZE	APPROX. NET WT./LBS.	DIM. C INCHES	DIM. E INCHES
3/8	0.08	1/32	7/8
1/2 (F)	0.14	7/16	15/32
1/2 x 3/4	0.19	9/16	13/8
3/4 (F)	0.19	1/2	1 1/4
3/4 x 1/2	0.18	7/16	15/16
1	0.43	23/32	15/8
1 1/4	0.55	7/8	1 11/16
1 1/2	0.81	1	1 31/32
2	1.38	1 1/4	2 5/8



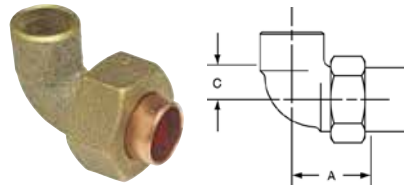
707-5-LF
Lead-Free 90° Drop Elbow C x C

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES	DIM. C INCHES
1/2 (F)	0.10	13/32	7/16
3/4	0.24	17/32	9/16



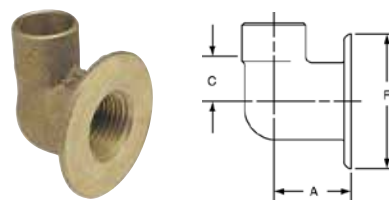
707-5A-LF
Lead-Free 90° Hy-Set Elbow C x C

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES	DIM. C INCHES	DIM. D INCHES
1/2	0.13	31/32	7/16	15/32
3/4	0.21	15/16	9/16	9/16



707-6-LF
Lead-Free 90° Union Elbow C x C

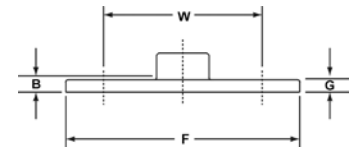
NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES	DIM. C INCHES
3/8	0.17	59/64	5/16
1/2	0.25	1	7/16
3/4	0.39	1 17/32	9/16



708-LF
Lead-Free 90° Flanged Sink Elbow C x F

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES	DIM. C INCHES	DIM. F INCHES
1/2 (F)	0.21	7/8	9/16	1 3/4

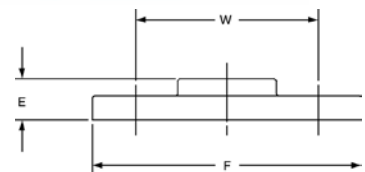
FLANGES – CLASS 150



771-LF
Lead-Free Companion Flange C

NOM. SIZE	APPROX. NET WT./LBS.	DIM. B INCHES	DIM. F INCHES	DIM. G INCHES	DIM. W INCHES
1	1.59	1/16	4 1/4	3/8	3 1/8
1 1/4	1.91	1/16	4 5/8	13/32	3 1/2
1 1/2	2.57	1/16	5	7/16	3 7/8
2	4.10	1/16	6	1/2	4 3/4
2 1/2	6.34	1/8	7	9/16	5 1/2
3	8.31	1/8	7 1/2	5/8	6
4	11.85	1/8	9	11/16	7 1/2
5	15.69	1/8	10	3/4	8 1/2
6	19.12	1/8	11	13/16	9 1/2

NOTE: Dim. B = Tube Stop to Flange Face



775-LF
Lead-Free Threaded Companion Flange Thrd.

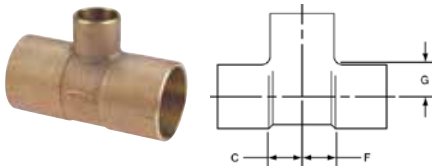
NOM. SIZE	APPROX. NET WT./LBS.	DIM. E INCHES	DIM. F INCHES	DIM. W INCHES
2	4.13	1	6	4 3/4
2 1/2	6.43	1 1/8	7	5 1/2
3	7.13	1 3/16	7 1/2	6
4	11.47	1 5/16	9	7 1/2

* Weighted average lead content ≤ 0.25%

(F) Forged fitting

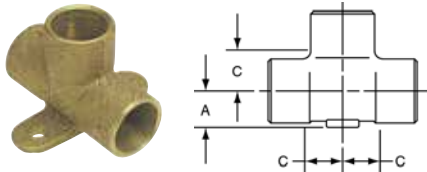
Lead-Free* Performance Bronze® Fittings

TEES



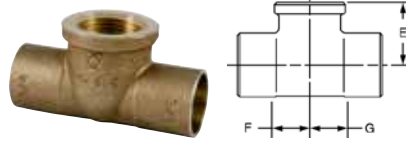
711-LF
Lead-Free Tee C x C x C

NOM. SIZE	APPROX. NET WT. LBS.	DIMENSIONS INCHES		
		C	F	G
1¼ x ½ x 1	0.48	¾	¾	7/8



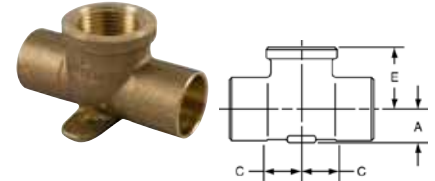
711-5-LF
Lead-Free Drop Tee C x C x C

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES	DIM. C INCHES
½	0.16	3/8	7/16



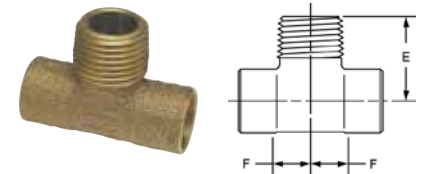
712-LF
Lead-Free Tee C x C x F

NOM. SIZE	APPROX. NET WT. LBS.	DIMENSIONS INCHES		
		E	F	G
½ (F)	0.14	13/16	7/16	7/16
½ x ½ x ¼	0.16	13/16	1/2	1/2
½ x ½ x 3/8	0.15	13/16	1/2	1/2
½ x ½ x ¾	0.23	15/16	11/16	11/16
¾ (F)	0.33	1	21/32	21/32
¾ x ¾ x 3/8	0.23	7/8	7/16	7/16
¾ x ¾ x ½ (F)	0.24	57/64	17/32	17/32
1	0.54	1¼	7/8	7/8
1 x 1 x ½ (F)	0.28	11/8	9/16	9/16
1 x 1 x ¾	0.42	13/16	11/16	11/16
1¼ x 1¼ x ½	0.49	1¼	9/16	9/16
1¼ x 1¼ x ¾	0.55	15/16	11/16	11/16
1¼ x 1¼ x 1	0.66	17/16	7/8	7/8
1½ x 1½ x ½	0.62	13/8	9/16	9/16
1½ x 1½ x ¾	0.70	17/16	11/16	11/16
1½ x 1½ x 1	0.79	1½	13/16	13/16
2 x 2 x ½	0.97	15/8	9/16	9/16
2 x 2 x ¾	1.10	111/16	11/16	11/16
2 x 2 x 1	1.23	1¾	13/16	13/16



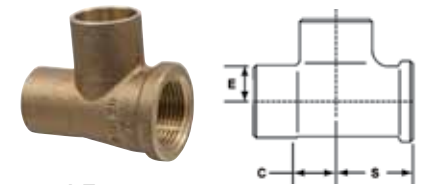
712-5-LF
Lead-Free Drop Ear Tee C x C x F

NOM. SIZE	APPROX. NET WT. LBS.	DIMENSIONS INCHES		
		A	C	E
½	0.25	3/8	9/16	7/8
¾	0.38	1/2	21/32	1



713-LF
Lead-Free Tee C x C x M

NOM. SIZE	APPROX. NET WT./LBS.	DIM. E INCHES	DIM. F INCHES
½	0.14	115/16	7/16



714-LF
Lead-Free Tee C x F x C

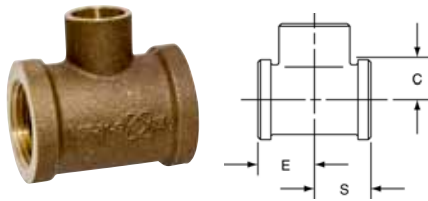
NOM. SIZE	APPROX. NET WT. LBS.	DIMENSIONS INCHES		
		C	E	S
½	0.18	7/16	9/16	7/8
½ x ¾ x ½	0.27	7/16	9/16	13/16
¾	0.31	9/16	11/16	1
¾ x ½ x ¾ (F)	0.18	9/16	9/16	7/8
1	0.52	23/32	13/16	11/4
1 x ½ x 1	0.42	¾	¾	1/8
1 x ¾ x 1	0.43	23/32	23/32	13/16

* Weighted average lead content ≤ 0.25%

(F) Forged fitting

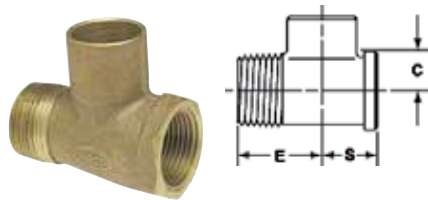
Lead-Free* Cast Performance Bronze® Fittings

TEES *cont.*



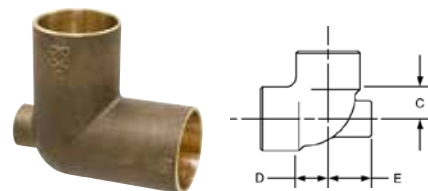
710-3-LF
Lead-Free Tee F x F x C

NOM. SIZE	APPROX. NET WT. LBS.	DIMENSIONS INCHES		
		C	E	S
3/4	0.37	11/16	1	1
3/4 x 1/2 x 1/2 (F)	0.20	9/16	7/8	31/32
3/4 x 1/2 x 3/4 (F)	0.21	9/16	15/16	1
3/4 x 3/4 x 1/2	0.31	11/16	31/32	31/32



710-3-4-LF
Lead-Free Tee M x F x C

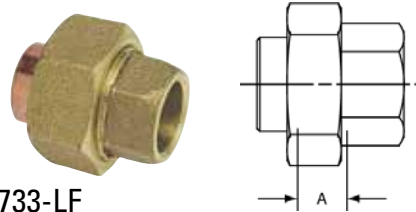
NOM. SIZE	APPROX. NET WT. LBS.	DIMENSIONS INCHES		
		C	E	S
3/4	0.32	11/16	111/32	1



705-LF
Lead-Free Baseboard Tee C x F x C

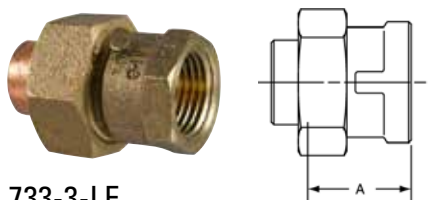
NOM. SIZE	APPROX. NET WT. LBS.	DIMENSIONS INCHES		
		C	E	D
1/2 x 1/8 x 1/2 (F)	0.08	1/2	1/2	9/16
3/4 x 1/8 x 3/4 (F)	0.14	9/16	11/16	9/16
1 x 1/8 x 1	0.62	7/8	11/4	3/4
1 1/4 x 1/8 x 1 1/4	0.51	7/8	15/16	7/8

UNIONS



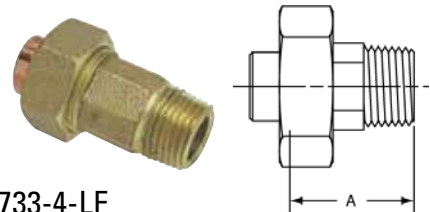
733-LF
Lead-Free Union C x C

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES
1 1/4	0.75	1/2
1 1/2	1.06	23/32
2	1.85	9/16
2 1/2	3.33	31/32
3	4.75	1 1/8



733-3-LF
Lead-Free Union C x F

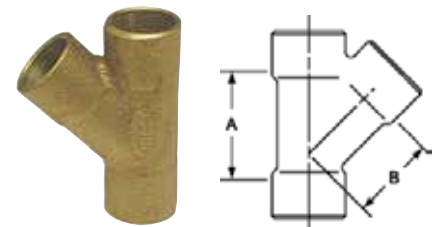
NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES
1/4	0.14	15/32
1/8	0.19	11/32
1/2	0.27	11/8
3/4	0.40	15/16
1	0.59	17/16
1 1/4	0.93	119/32
1 1/2	1.35	113/16
2	1.89	115/16
2 1/2	3.66	213/32



733-4-LF
Lead-Free Union C x M

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES
1/4	0.13	1 1/2
3/8	0.20	15/8
1/2	0.29	111/16
3/4	0.43	129/32
1	0.64	21/8
1 1/4	0.94	25/32
1 1/2	1.29	213/32
2	2.19	223/32
2 1/2	4.21	33/8

Y'S



749-LF
Lead-Free 45° Y C x C x C

NOM. SIZE	APPROX. NET WT./LBS.	DIM. A INCHES	DIM. B INCHES
1/2	0.15	13/32	7/8
3/4	0.30	17/32	17/32
1	0.55	113/16	115/32
1 1/4	0.81	21/4	17/8

* Weighted average lead content ≤ 0.25%

(F) Forged fitting

Identification of Lead-Free* Bronze/Brass Valves and Fittings Markings



NIBCO® HydraPure® can be identified by the double oval symbol, and "Si" – indicative of silicon Performance Bronze™ – cast on the body of the valve or fitting.

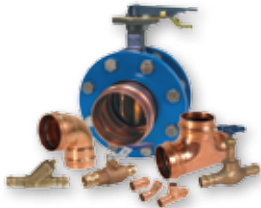


Lead-Free fittings and valves not manufactured from Performance Bronze® include an "LF" in the body.

Other NIBCO Lead-Free* Products Include:



WROT COPPER FITTINGS



NIBCO® PRESS SYSTEM®



NIBCO® PUSH



THE LARGEST VALVE PACKAGE IN THE INDUSTRY

Visit us at www.nibcoleadfree.com for our full lead-free offering.

* Weighted average lead content ≤ 0.25%

Ⓢ Forged fitting

WHY SILICON LEAD FREE ALLOYS?



BASIC PHYSICAL PROPERTIES

HydraPure® silicon Performance Bronze® exhibits mechanical properties that far exceed traditional plumbing alloys containing lead, especially when temperature is applied. NIBCO provides a series of white papers about engineering properties and performance characteristics of lead-free products on its website, nibcoleadfree.com.

CORROSION RESISTANCE

NIBCO uses third-party testing agencies to test its HydraPure® silicon Performance Bronze® products for stress corrosion cracking and dezincification corrosion. Testing also provides certification that products meet industry-accepted ISO drinking water standards.

THIRD-PARTY REASSURANCE

NIBCO® HydraPure® products have achieved the highest level of stringent testing (Commercial Hot 180°F) within the NSF/ANSI 61-8 drinking water standard. In addition, HydraPure products are listed to NSF/ANSI 372; Weighted Average Lead Content of Water Contact Components that satisfies new requirements of the Safe Drinking Water Act.



HEALTH EFFECTS

NIBCO lead-free initiatives have a direct correlation to improving health and safety. The company strives to continuously improve its products through research regarding potential health hazards.

Unlike other lead replacements, silicon is not a regulated substance and no published information indicates that silicon may pose drinking water health effects.

13 Al Aluminum	14 Si Silicon	15 P Phosphorus	16 S Sulfur
31 Ga Gallium	32 Ge Germanium	33 As Arsenic	34 Se Selenium
49 In Indium	50 Sn Tin	51 Sb Antimony	52 Te Tellurium
81 Tl Thallium	82 Pb Lead	83 Bi Bismuth	84 Po Polonium

SOURCE OF SUPPLY

Silicon is the second most abundant element within the earth's crust, second only to oxygen. In contrast, the U.S. has no bismuth deposits. Bismuth is only about twice as abundant as gold and is extracted from the earth's crust primarily as a byproduct of lead mining.



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