

## **PureFlow® Metallic Zero Lead PEX Crimp Eco Brass® Fittings and Crimp Rings for ViegaPEX™ and ViegaPEX™ Ultra SDR-9 Cross-linked Polyethylene (PEX)**

### **Scope**

This product specification designates the requirements for PureFlow metallic zero lead PEX Crimp insert fittings and black, copper crimp rings to be used as connections for ViegaPEX and ViegaPEX Ultra tubing in 3/8", 1/2", 3/4" and 1" sizes. The connections are assembled with a full-circle crimp tool designed specifically for that purpose.

### **Materials**

PureFlow metallic zero lead PEX Crimp fittings are manufactured from extruded (C69300) or forged (C87850) Eco Brass with some fittings supplied in copper. All PureFlow PEX Crimp fittings are precision-made to tight tolerances for a consistent fit with PEX tubing. All PureFlow metallic zero lead PEX Crimp fittings meet the rigorous requirements of ANSI/NSF-61-G for lead extraction and meet the California AB 1953 no lead requirements. "Zero Lead" identifies Viega products meeting the lead free requirements of California and Vermont law, effective January 1, 2010, as tested and listed against NSF- 61, Annex G.

The black, copper crimp rings are manufactured from UNS C10200 or UNS C12200 copper alloy. Rings are annealed to 35-45 Rockwell 15T scale for ease of crimping. The black coating is not a paint but a surface treatment that does not add to the dimensions of the ring.

### **Marking and Certification**

PureFlow metallic zero lead PEX Crimp fittings and rings are manufactured and certified to the requirements of ASTM F1807. PureFlow metallic zero lead PEX Crimp fittings and rings are marked with the F1807 designation, PEX, manufacturers mark, and required mark(s) of third-party certification organizations. Fittings meet the requirements of ANSI/NSF-61 for health effects and are suitable for contact with potable water. NSF International and other certification organizations conduct random on-site inspections of manufacturing facilities and independently test PureFlow metallic zero lead PEX Crimp fittings for compliance with physical, performance and toxicological standards.

### **Recommended Uses**

PureFlow metallic zero lead PEX Crimp fittings and black copper crimp rings are intended and recommended for use in potable water distribution systems with ViegaPEX and ViegaPEX Ultra tubing meeting the requirements of ASTM F876 . Maximum design temperature and pressure ratings are 160 psi @ 73°F and 100 psi @ 180°F. PureFlow metallic zero lead PEX Crimp fitting system components are interchangeable with components and tubing from other PEX suppliers, providing they are manufactured to the same ASTM specifications and the manufacturer approves the mixing of components. Viega has no control over the quality of other manufacturers, therefore we do not extend any warranty to those components that are not supplied by Viega. For information on other hot and cold applications not listed here, consult with your Viega representative.

### **Handling and Installation**

PureFlow metallic zero lead PEX Crimp fittings are extruded or forged Eco Brass and precision-made to tight tolerances. Use of these materials in hot and cold water distribution systems must be in accordance with good plumbing practices, applicable code requirements, and current installation practices available from Viega. Contact a Viega representative or the applicable code enforcement bureau for information about approvals for specific applications.

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## Quality Assurance

When the product is marked with the ASTM F1807 designation, it affirms that the product was manufactured, inspected, sampled and tested in accordance with these specifications and has been found to meet the specified requirements.

## Certifications

### cNSF®us pw-G

- Zero lead listing meeting California AB 1953 and Vermont Act 193
- NSF International Performance and Health Effects (Standards 14 & 61)
- NSF certified to CSA B137.5 (Canadian Standards Association)

### NSF Certified to NSF-U.P. Code

- approved for Uniform Plumbing Code, listed to ASTM F1807.



- IAPMO Certified



- ANSI/NSF 61-G



- ICC ES-PMG™ 1038

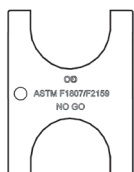
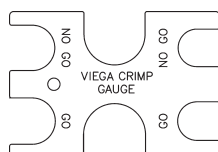
NOTE: All fittings may not be listed with each organization shown.

## Pressure Drop Table For PureFlow Metallic Zero Lead PEX Crimp Fittings Expressed in Equivalent Length of Tubing in Feet

SIZE	COUPLING	90° ELBOW	TEE RUN	TEE BRANCH
3/8"	2.9	9.2	2.9	9.4
1/2"	2.0	9.4	2.2	10.4
3/4"	.6	9.4	1.9	8.9
1"	1.3	10	2.3	11

This information is based on tubing nominal flow rate.  
(8 fps flow velocity)

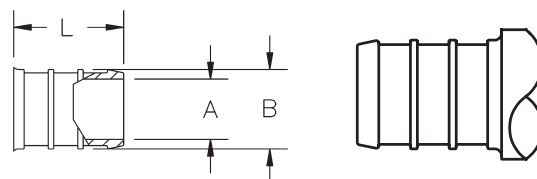
**GO/NO GO Gauges:** Viega offers GO/NO GO gauge for easy testing of the finished crimp.



## PureFlow Metallic Zero Lead PEX Crimp Fittings Typical Fitting Insert Dimensions

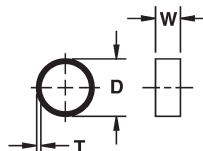
SIZE	A	B	L
3/8"	.230	0.345±.004	.625
1/2"	.350	0.471±.004	.625
3/4"	.53	0.667±.004	.625
1"	.710	0.856±.004	.785

NOTE: Dimensions are in English units.  
Tolerances shown are ASTM requirements. Viega PEX Zero Lead Crimp metallic fittings are manufactured within these specifications.



## Copper Crimp Ring Dimensions Before Crimping

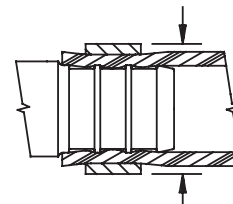
SIZE	D	W	T
3/8"	.630	.325	.058
1/2"	.750	.325	.056
5/8"	.875	.325	.056
3/4"	1.00	.325	.056
1"	1.25	.365	.049



All dimensions shown are nominal.

## Crimped Diameter Dimensions

Final crimped outside diameters shall fall within these dimensions when measured with a micrometer or caliper.



SIZE	MINIMUM	MAXIMUM
3/8"	ø 0.580"	ø 0.595"
1/2"	ø 0.700"	ø 0.715"
3/4"	ø 0.945"	ø 0.960"
1"	ø 1.175"	ø 1.190"

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