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COUNTERSTRIKE® CONDUCTIVE JACKET CORRUGATED STAINLESS STEEL TUBING

CSI Sections:

- 23 11 23 Facility Natural-Gas Piping
- 23 11 26 Facility Liquefied-Petroleum Gas Piping

1.0 RECOGNITION

Omega Flex’s CounterStrike® Conductive Jacket Corrugated Stainless Steel Tubing (CSST) recognized in this report has been evaluated for use as a fuel gas piping system with an arc-resistant jacket in accordance with CSA/ANSI LC 1 Sections 5.15 and 5.16. CounterStrike® Conductive Jacket CSST meets the maximum surface burning indices required by the UMC and IMC and complies with the intent of the provisions of the following codes and regulations:

- 2021, 2018, and 2015 Uniform Plumbing Code® (UPC)
- 2021, 2018, and 2015 Uniform Mechanical Code® (UMC)
- 2021, 2018, and 2015 International Residential Code® (IRC)
- 2021, 2018, and 2015 International Fuel Gas Code® (IFGC)
- 2020, 2017, and 2014 National Electrical Code (NEC) (NFPA 70)

2.0 LIMITATIONS

Use of the CounterStrike® Conductive Jacket CSST tubing recognized in this report is subject to the following limitations:

2.1 CounterStrike® Conductive Jacket CSST shall be installed in accordance with the applicable code, the manufacturer’s published installation instructions, and this report. Where there is a conflict, the most restrictive requirements shall govern.

2.2 CounterStrike® shall be bonded in accordance with NEC Article 250.104B in the same manner as the minimum requirements for rigid metal piping. When installed in accordance with this report, the Conductive Jacket CSST tubing is electrically continuous and is considered bonded where the gas piping system is connected to any appliance that is connected to the equipment grounding conductor of

the branch circuit supplying the appliance. Additional bonding prescribed by IFGC Section 310.2 or UPC Section 1211.2 is not required for Conductive Jacket CSST when installed in accordance with this report.

2.3 Omega Flex’s CounterStrike® Conductive Jacket CSST tubing recognized in this report is produced by Omega Flex in Exton, Pennsylvania.

3.0 PRODUCT USE

CounterStrike® is used for gas distribution and is designed to decrease the potential for lightning-induced damage to fuel gas piping. The level of resistance to arcing is “1,000 amps minimum peak delivering 4.5 coulombs within 20 milliseconds (0.020 seconds)” as required by the criteria. This product does not protect from damage caused by a direct lightning strike.

4.0 PRODUCT DESCRIPTION

The CounterStrike® Conductive Jacket CSST system consists of the following parts:

1. A black conductive exterior jacket
2. A corrugated stainless steel tubing
3. Mechanical fittings designed for use only with Omega Flex CounterStrike® Conductive Jacket CSST products.

The CSST tubing is installed between the point of fuel delivery and fuel gas appliances. The mechanical fittings utilize metal-to-metal sealing. The system includes mechanical fittings, distribution manifolds, shutoff valves, termination outlet devices, pressure regulators, and protection devices.

CounterStrike® system has been tested in accordance with ASTM E84 and satisfies the requirement in UMC Section 602.2 and IMC Section 602.2.1 for installation in plenums. The tubing exhibits a flame spread index of less than 25 and a smoke-developed index of less than 50.

Omega Flex CSST tubing with the protective conductive jacket is recognized by IAPMO R&T in Listing No. 3682 as complying with ANSI LC 1-2019/CSA 6.26-19.

5.0 IDENTIFICATION

CounterStrike® Conductive Jacket CSST is identified by Omega Flex as follows:

At every two feet, the tubing bears the trade names, CounterStrike®, the acronym “AR”, or the words Arc-Resistant, part number, rated pressure (up to 25 psi), equivalent hydraulic diameter (EHD), a date stamp, and the

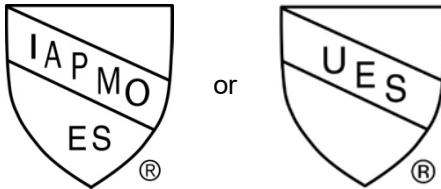
The product described in this Uniform Evaluation Service (UES) Report has been evaluated as an alternative material, design or method of construction in order to satisfy and comply with the intent of the provision of the code, as noted in this report, and for at least equivalence to that prescribed in the code in quality, strength, effectiveness, fire resistance, durability and safety, as applicable, in accordance with IBC Section 104.11. This document shall only be reproduced in its entirety.





words “Fuel Gas”. The components such as fittings, strike plates, and distribution manifolds are stamped with the Omega Flex logo, the part number, and a date stamp.

In addition, the tubing or tubing package shall be marked with the IAPMO Uniform ES Evaluation Report number (ER-227). Either one of the following IAPMO Uniform ES Marks of Conformity may also be used.



IAPMO UES ER-227

6.0 SUBSTANTIATING DATA

6.1 Testing and analysis data submitted was in conformance with ICC PMG Listing Criteria LC1024, dated February 2010 (revised February 2012 and February 2016).

6.2 Testing in accordance with CSA/ANSI LC 1-2019 / CSA 6.26-2019

6.3 Listing recognition from R&T File No. 3682.

6.4 Test reports are from laboratories in compliance with ISO/IEC 17025.

7.0 STATEMENT OF RECOGNITION

This evaluation report describes the results of research completed by IAPMO Uniform Evaluation Service on Omega Flex’s CounterStrike® Conductive Jacket Corrugated Stainless Steel Tubing to assess conformance to the codes shown in Section 1.0 of this report and serves as documentation of the product certification. Products are manufactured at locations noted in Section 2.3 of this report under a quality control program with periodic inspection under the supervision of IAPMO UES.

For additional information about this evaluation report please visit www.uniform-es.org or email us at info@uniform-es.org