



Certificate of Compliance

This certificate is issued for the following:

Polyethylene (PE) Fittings for Underground Fire Protection Service
(see attached tables)

Prepared for:

ISCO Industries LLC
100 Witherspoon St.
Louisville, KY 40202
USA

Manufactured by:

ISCO Industries
10711 Freeport Court
Louisville, KY 40258
USA

ISCO Industries
5610 Alameda-Genoa Rd
Houston, TX 77048
USA

ISCO Industries
701 Mid Atlantic Pkwy
Martinsburg, WV 25404
USA

FM Approvals Class: 1613, dated February 2017

Approval Identification: PR451925

Date Approved: May 13, 2019

To verify the availability of the Approved product, please refer to www.approvalguide.com

Said Approval is subject to satisfactory field performance, continuing Surveillance Audits, and strict conformity to the constructions as shown in the Approval Guide, an online resource of FM Approvals.



Member of the FM Global Group

A handwritten signature in dark ink, appearing to read "D. B. Fuller".

David B. Fuller
VP, Manager of Fire Protection
FM Approvals
1151 Boston-Providence Turnpike
Norwood, MA 02062 USA



Certificate of Compliance

ISCO Industries, Polyethylene Pipe and Fittings

<i>Product Designation</i>	<i>Nominal Pipe Size, in.</i>	<i>Pressure Rating, psi (kPa)</i>	<i>Remarks</i>
Class 200 Tees Molded	2, 3, 4, 6	200 (1380)	a, c
Class 250 Tees Molded	2, 3, 4, 6	250 (1725)	a, c
Class 335 Tees Molded	2, 3, 4, 6	335 (2310)	a, c
Class 200 Tees Molded	4, 6	200 (1380)	a, d
Class 250 Tees Molded	4, 6	250 (1725)	a, d
Class 335 Tees Molded	4, 6	335 (2310)	a, d
Class 200, 90° Elbows Molded	2, 3, 4, 6	200 (1380)	a, c
Class 250, 90° Elbows Molded	2, 3, 4, 6	250 (1725)	a, c
Class 335, 90° Elbows Molded	2, 3, 4, 6	335 (2310)	a, c
Class 200, 90° Elbows Molded	4, 6	200 (1380)	a, d
Class 250, 90° Elbows Molded	4, 6	250 (1725)	a, d
Class 335, 90° Elbows Molded	4, 6	335 (2310)	a, d
Class 200, 45° Elbows Molded	3, 4, 6	200 (1380)	a, c
Class 250, 45° Elbows Molded	3, 4, 6	250 (1725)	a, c
Class 335, 45° Elbows Molded	2, 3, 4, 6	335 (2310)	a, c
Class 200, 45° Elbows Molded	4, 6	200 (1380)	a, d



Member of the FM Global Group



Certificate of Compliance

Product Designation	Nominal Pipe Size, in.	Pressure Rating, psi (kPa)	Remarks
Class 250, 45° Elbows Molded	4, 6	250 (1725)	a, d
Class 335, 45° Elbows Molded	4, 6	335 (2310)	a, d
Class 200, End Caps Molded	2, 3, 4, 6, 8	200 (1380)	a, c
Class 250, End Caps Molded	2, 3, 4, 6, 8	250 (1725)	a, c
Class 335, End Caps Molded	2, 3, 4, 6	335 (2310)	a, c
Class 335, End Caps Fabricated	8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	a, c
Class 200, Sweep Elbows 1-90°	4, 6, 8, 10, 12, 14	200 (1380)	a, c
Class 250, Sweep Elbows 1-90°	4, 6, 8, 10, 12, 14	250 (1725)	a, c
Class 200 Concentric Reducer	4 DIPS x 3 IPS	200 (1380)	a, c, d
Class 250 Concentric Reducer	4 DIPS x 3 IPS	250 (1725)	a, c, d
Class 200 Concentric Reducer	3 x 2, 4 x 3, 6 x 4, 8 x 6, 10 x 8, 12 x 10, 14 x 12, 16 x 14, 18 x 16, 20 x 18, 22 x 20, 24 x 22	200 (1380)	a, c
Class 250 Concentric Reducer	3 x 2, 4 x 3, 6 x 4, 8 x 6, 10 x 8, 12 x 10, 14 x 12, 16 x 14, 18 x 16, 20 x 18, 22 x 20, 24 x 22	250 (1725)	a, c
Class 335 Molded Concentric Reducer	3 x 2, 4 x 2, 4 x 3, 6 x 4, 8 x 6	335 (2310)	a, c
Class 335 Fabricated Concentric Reducer	10 x 8, 12 x 10, 14 x 12, 16 x 14, 18 x 16, 20 x 18, 22 x 20, 24 x 22	335 (2310)	a, c
Class 335 Fabricated Concentric Reducer (Shortened Version)	10 x 8, 12 x 10, 14 x 12, 16 x 14, 18 x 16, 20 x 18, 22 x 20, 24 x 22	335 (2310)	a, c



Member of the FM Global Group



Certificate of Compliance

Product Designation	Nominal Pipe Size, in.	Pressure Rating, psi (kPa)	Remarks
Class 200 Concentric Reducer	6 x 4, 8 x 6, 10 x 8, 12 x 10, 14 x 12, 16 x 14 18 x 16, 20 x 18, 24 x 20	200 (1380)	a, d
Class 250 Concentric Reducer	6 x 4, 8 x 6, 10 x 8, 12 x 10, 14 x 12, 16 x 14 18 x 16, 20 x 18, 24 x 20	250 (1725)	a, d
Class 335 Molded Concentric Reducer	6 x 4, 8 x 6	335 (2310)	a, d
Class 335 Fabricated Concentric Reducer	10 x 8, 12 x 10, 14 x 12, 16 x 14, 18 x 16, 20 x 18	335 (2310)	a, d
Class 335 Fabricated Concentric Reducer (Shortened Version)	10 x 8, 12 x 10, 14 x 12, 16 x 14, 18 x 16, 20 x 18	335 (2310)	a, d
Class 200 Flange Adapter, Molded	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a, b, c
Class 250 Flange Adapter, Molded	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1725)	a, b, c
Class 335 Flange Adapter, Molded	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	a, b, c
Class 335 Fabricated Beveled Flange Adapter	6, 8, 10	335 (2310)	a, b, c, d
Class 200 Flange Adapter, Molded	4, 6, 8, 10, 12, 14 16, 18, 20, 24	200 (1380)	a, b, d
Class 250 Flange Adapter, Molded	4, 6, 8, 10, 12, 14 16, 18, 20, 24	250 (1725)	a, b, d
Class 335 Flange Adapter, Molded	4, 6, 8, 10, 12, 14 16, 18, 20, 24	335 (2310)	a, b, d
Class 200 Ductile Iron Backup Rings	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	b, c
Class 250 Ductile Iron Backup Rings	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1725)	b, c
Class 335 Ductile Iron Backup Rings (Domestic)	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	b, c



Member of the FM Global Group



Certificate of Compliance

Product Designation	Nominal Pipe Size, in.	Pressure Rating, psi (kPa)	Remarks
Class 335 Ductile Iron Backup Rings (Import)	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	b, c
Class 335 Stainless Steel Backup Rings	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	b, c
Class 200 Ductile Iron Backup Rings	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	200 (1380)	b, d
Class 250 Ductile Iron Backup Rings	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	250 (1725)	b, d
Class 335 Ductile Iron Backup Rings (Domestic)	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	b, d
Class 335 Ductile Iron Backup Rings (Import)	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	b, d
Class 335 Stainless Steel Backup Rings	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	b, d
Class 200 Branch Saddle Reducing Tee	3 x 2, 4 x 2, 4 x 3, 6 x 2, 6 x 3, 6 x 4, 8 x 2, 8 x 3, 8 x 4, 8 x 6, 10 x 2, 10 x 3, 10 x 4, 10 x 6, 10 x 8, 12 x 2, 12 x 3, 12 x 4, 12 x 6, 12 x 8, 12 x 10, 14 x 2, 14 x 3, 14 x 4, 14 x 6, 14 x 8, 14 x 10, 16 x 2, 16 x 3, 16 x 4, 16 x 6, 16 x 8, 16 x 10, 16 x 12, 18 x 2, 18 x 3, 18 x 4, 18 x 6, 18 x 8, 18 x 10, 18 x 12, 20 x 6, 20 x 8, 20 x 10, 20 x 12, 20 x 16, 22 x 6, 24 x 6, 24 x 8, 24 x 10, 24 x 12, 24 x 16	200 (1380)	a, c
Class 250 Branch Saddle Reducing Tee	3 x 2, 4 x 2, 4 x 3, 6 x 2, 6 x 3, 6 x 4, 8 x 2, 8 x 3, 8 x 4, 8 x 6, 10 x 2, 10 x 3, 10 x 4, 10 x 6, 10 x 8, 12 x 2, 12 x 3, 12 x 4, 12 x 6, 12 x 8, 12 x 10, 14 x 2, 14 x 3, 14 x 4,	250 (1725)	a, c





Certificate of Compliance

<i>Product Designation</i>	<i>Nominal Pipe Size, in.</i>	<i>Pressure Rating, psi (kPa)</i>	<i>Remarks</i>
	14 x 6, 14 x 8, 14 x 10, 16 x 2, 16 x 3, 16 x 4, 16 x 6, 16 x 8, 16 x 10, 16 x 12, 18 x 2, 18 x 3, 18 x 4, 18 x 6, 18 x 8, 18 x 10, 18 x 12, 20 x 6, 20 x 8, 20 x 10, 20 x 12, 20 x 16, 22 x 6, 24 x 6, 24 x 8, 24 x 10, 24 x 12, 24 x 16		
Class 335 Branch Saddle Reducing Tee	8 x 6, 10 x 6, 10 x 8, 12 x 6, 12 x 8, 12 x 10, 14 x 6, 14 x 8, 14 x 10, 16 x 6, 16 x 8, 16 x 10, 16 x 12, 18 x 6, 18 x 8, 18 x 10, 18 x 12, 20 x 6, 20 x 8, 20 x 10, 20 x 12, 24 x 6, 24 x 8, 24 x 10, 24 x 12	335 (2310)	a, c, d
Class 200 Branch Saddle Reducing Tee	6 x 4, 8 x 4, 8 x 6, 10 x 4, 10 x 6, 10 x 8, 12 x 4, 12 x 6, 12 x 8, 12 x 10, 14 x 4, 14 x 6, 14 x 8, 14 x 10, 16 x 4, 16 x 6, 16 x 8, 16 x 10, 16 x 12, 18 x 4, 18 x 6, 18 x 8, 18 x 10, 18 x 12, 20 x 6, 20 x 8, 20 x 10, 20 x 12, 24 x 6, 24 x 8, 24 x 10, 24 x 12	200 (1380)	a, d
Class 250 Branch Saddle Reducing Tee	6 x 4, 8 x 4, 8 x 6, 10 x 4, 10 x 6, 10 x 8, 12 x 4, 12 x 6, 12 x 8, 12 x 10, 14 x 4, 14 x 6, 14 x 8, 14 x 10, 16 x 4, 16 x 6, 16 x 8, 16 x 10, 16 x 12, 18 x 4, 18 x 6, 18 x 8, 18 x 10, 18 x 12, 20 x 6, 20 x 8, 20 x 10, 20 x 12, 24 x 6, 24 x 8, 24 x 10, 24 x 12	250 (1725)	a, d
Class 200 Fabricated Tee	8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a, c
Class 250 Fabricated Tee	8, 10, 12, 14, 16, 18, 20, 24	250 (1725)	a, c



Member of the FM Global Group



Certificate of Compliance

Product Designation	Nominal Pipe Size, in.	Pressure Rating, psi (kPa)	Remarks
Class 335 Fabricated Tee	8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	a, c
Class 200 Fabricated Tee	8, 10, 12, 14, 16, 18, 20, 24	200 (1380)	a, d
Class 250 Fabricated Tee	8, 10, 12, 14, 16, 18, 20, 24	250 (1725)	a, d
Class 335 Fabricated Tee	8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	a, d
Class 200 Fabricated ≤90° Elbow (5 segments)	8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a, c
Class 250 Fabricated ≤90° Elbow (5 segments)	8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1725)	a, c
Class 335 Fabricated ≤90° Elbow (5 segments)	8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	a, c
Class 200 Fabricated ≤90° Elbow (5 segments)	8, 10, 12, 14, 16, 18, 20, 24	200 (1380)	a, d
Class 250 Fabricated ≤90° Elbow (5 segments)	8, 10, 12, 14, 16, 18, 20, 24	250 (1725)	a, d
Class 335 Fabricated ≤90° Elbow (5 segments)	8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	a, d
Class 200 Fabricated ≤90° Elbow (3 segments)	8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a, c
Class 250 Fabricated ≤90° Elbow (3 segments)	8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1725)	a, c
Class 200 Fabricated ≤90° Elbow (3 segments)	8, 10, 12, 14, 16, 18, 20, 24	200 (1380)	a, d
Class 250 Fabricated ≤90° Elbow (3 segments)	8, 10, 12, 14, 16, 18, 20, 24	250 (1725)	a, d
Class 200 Fabricated ≤45° Elbow (3 segments)	8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a, c
Class 250 Fabricated ≤45° Elbow (3 segments)	8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1725)	a, c
Class 335 Fabricated ≤45° Elbow (3 segments)	8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	a, c



Member of the FM Global Group



Certificate of Compliance

<i>Product Designation</i>	<i>Nominal Pipe Size, in.</i>	<i>Pressure Rating, psi (kPa)</i>	<i>Remarks</i>
Class 200 Fabricated ≤45° Elbow (3 segments)	8, 10, 12, 14, 16, 18, 20, 24	200 (1380)	a, d
Class 250 Fabricated ≤45° Elbow (3 segments)	8, 10, 12, 14, 16, 18, 20, 24	250 (1725)	a, d
Class 335 Fabricated ≤45° Elbow (3 segments)	8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	a, d
Class 200 Fabricated ≤45° Elbow (2 segments)	8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a, c
Class 250 Fabricated ≤45° Elbow (2 segments)	8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1725)	a, c
Class 200 Fabricated ≤45° Elbow (2 segments)	8, 10, 12, 14, 16, 18, 20, 24	200 (1380)	a, d
Class 250 Fabricated ≤45° Elbow (2 segments)	8, 10, 12, 14, 16, 18, 20, 24	250 (1725)	a, d
Class 200 Mechanical Joint Adapter	2, 3, 4, 6, 8, 10, 12, 14, 16, 18	200 (1380)	a, b, c
Class 250 Mechanical Joint Adapter	2, 3, 4, 6, 8, 10, 12, 14, 16, 18	250 (1725)	a, b, c
Class 200 Mechanical Joint Adapter	4, 6, 8, 10, 12, 14, 16, 18	200 (1380)	a, b, d
Class 250 Mechanical Joint Adapter	4, 6, 8, 10, 12, 14, 16, 18	250 (1725)	a, b, d
Class 200 Wall Anchor	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a, c
Class 250 Wall Anchor	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1725)	a, c
Class 335 Wall Anchor	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	a, c
Class 200 Wall Anchor	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	200 (1380)	a, d
Class 250 Wall Anchor	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	250 (1725)	a, d
Class 335 Wall Anchor	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	a, d



Member of the FM Global Group



Certificate of Compliance

<i>Product Designation</i>	<i>Nominal Pipe Size, in.</i>	<i>Pressure Rating, psi (kPa)</i>	<i>Remarks</i>
Class 335 Stub End	2, 3, 4, 6, 8, 10, 12, 14	335 (2310)	a, c
Class 335 Stub End	4, 6, 8, 10, 12, 14	335 (2310)	a, d
Class 250 Reducing Flanges	8 x 6, 10 x 8, 12 x 10, 14 x 12, 16 x 14, 18 x 16	250 (1725)	a, b, c, d
Class 335 Reducing Flanges	6 x 4, 8 x 6, 10 x 8, 12 x 10, 14 x 12, 16 x 14, 18 x 16, 20 x 18, 22 x 20, 24 x 20, 24 x 22, 26 x 24	335 (2310)	a, b, c
Class 335 Reducing Flanges	6 x 4, 8 x 6, 10 x 8, 12 x 10, 14 x 12, 16 x 14, 18 x 16, 20 x 18, 24 x 20, 26 x 24	335 (2310)	a, b, d

Remarks:

- a. Pipe and fittings may be directly connected together by the butt fusion process. Manufacturer fusion instructions must be strictly followed for a proper fusion joint. The pipe and fittings may also be joined to other FM Approved steel flanged pipe and fittings by using the listed flange adapters.
- b. Pipe and adapter, with ductile iron gland ring attached, are directly connected by the butt fusion process. Manufacturer fusion instructions must be strictly followed for a proper fusion joint. The polyethylene fitting, gland ring, gasket, and T-Head bolts are provided in a kit for field installation, which allows attachment to a compatible flange with ductile iron pipe.
- c. FM Approved in Iron Pipe Sized Diameter Basis.
- d. FM Approved in Ductile Iron Pipe Size Diameter Basis.



Member of the FM Global Group