

#### **Certificate of Compliance**

This certificate is issued for the following:

Polyethylene (PE) Fittings for Underground Fire Protection Service

(see attached listing)

#### 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 Almeda-Genoa Rd Houston, TX 77048 USA ISCO Industries 701 Mid Atlantic Pkwy Martinsburg, WV 25404 USA

FM Approvals Class: 1613 (February 2017)

Approval Identification: PR459166 Date Approved: February 15, 2021

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.

David B. Fuller

VP, Manager of Fire Protection

FM Approvals

1151 Boston-Providence Turnpike

Norwood, MA 02062 USA



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## **Certificate of Compliance**

ISCO Industries, Polyethylene Pipe and Fittings

Product Designation	Nominal Pipe Size, in.	Pressure Rating, psi (kPa)	Remarks
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





Product	Nominal Pipe	Pressure Rating,	
Designation	Size, in.	psi (kPa)	Remarks
Class 200, 45° Elbows Molded	4, 6	200 (1380)	a, d
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 200 Forged Concentric Reducer	12 x 8, 12 x 10, 14 x 12, 16 x 12, 16 x 14, 18 x 12, 18 x 14, 18 x 16, 20 x 18, 24 x 18, 24 x 20	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





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



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



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Product Designation	Nominal Pipe Size, in.	Pressure Rating, psi (kPa)	Remarks
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, 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	250 (1725)	a, c
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	335 (2310)	a, c, d





Product	Naminal Pina Prossura Pating		
Designation Designation	Nominal Pipe Size, in.	Pressure Rating, psi (kPa)	Remarks
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)	а, с
Class 250 Fabricated Tee	8, 10, 12, 14, 16, 18, 20, 24	250 (1725)	a, c
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





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





Product Designation	Nominal Pipe Size, in.	Pressure Rating, psi (kPa)	Remarks
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
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



#### **Certificate of Compliance**

Product	Nominal Pipe	Pressure Rating,	Remarks
Designation	Size, in.	psi (kPa)	
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.



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