



# Certificate of Compliance

This certificate is issued for the following:

**Polyethylene (PE) Pipe and Fittings for Underground Fire Protection Service**  
(see full listing attached)

**Prepared for:**

Georg Fischer Central Plastics LLC  
4949 Joseph Hardin Drive  
Dallas, TX 75236  
United States

**Manufactured at:**

Georg Fischer Central Plastics LLC  
4949 Joseph Hardin Drive  
Dallas, TX 75236  
United States

FM Approvals Class: 1613

Approval Identification: 0003063233

Approval Granted: November 16, 2017

To verify the availability of the Approved product, please refer to [www.approvalguide.com](http://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.

A handwritten signature in black ink, appearing to read "D. B. Fuller", is written over a horizontal line.

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



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## Polyethylene Pipe and Fittings

<i>Product Designation</i>	<i>Nominal Pipe Size, in.</i>	<i>Pressure Rating, psi (kPa)</i>	<i>Remarks</i>
Flange Adapter Class 200	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	200 (1380)	a,d
Flange Adapter Class- 250	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	250 (1725)	a, d
DI Backup Ring Class 200	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	200 (1380)	a,d
DI Backup Ring Class 250	4, 6, 8, 10 12	250 (1725)	a,d
90° Elbow Class 200	4, 6, 8, 10, 12	200 (1380)	a,d
90° Elbow Class 250	4, 6, 8, 10, 12	250 (1725)	a,d
45° Elbow Class 200	4, 6, 8, 10, 12	200 (1380)	a,d
45° Elbow Class 250	4, 6, 8, 10, 12	250 (1725)	a,d
Tee Class 200	4, 6, 8, 10, 12	200 (1380)	a,d
Tee Class 250	4, 6, 8, 10, 12	250 (1725)	a,d
End Cap Class 200	4, 6, 8, 10, 12	200 (1380)	a,d
End Cap Class 250	4, 6, 8	250 (1725)	a,d
Concentric Reducer Class 200	6 x 4, 8 x 6, 10 x 8, 12 x 10	200 (1380)	a,d
Concentric Reducer Class-250	6 x 4, 8 x 6, 10 x 8, 12 x 10	250 (1725)	a,d
MJ Adapter Class 200	4, 6, 8, 10, 12	200 (1380)	a,d



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<b>Product Designation</b>	<b>Nominal Pipe Size, in.</b>	<b>Pressure Rating, psi (kPa)</b>	<b>Remarks</b>
MJ Adapter Class250	4, 6, 8, 10, 12	250 (1725)	a,d
Transition Fittings Class 200	4, 6, 8, 10, 12	200 (1380)	b,d
Transition Fittings Class 250	4, 6, 8, 10, 12, 16	250 (1725)	b,d
Electrofusion Coupling Class 250	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1725)	c,d
Electrofusion Branch Saddles - Class 200	4 x 2, 4 x 4, 6 x 2 6 x 4, 8 x 2	200 (1380)	c,d
Electrofusion Branch Saddles – Class 250	4 x 4, 6 x 4	250 (1725)	c,d
Butt Fusion Branch Saddles – Class 185	2, 4, 6, 8, 10, 12	185 (1275)	d,e
Butt Fusion Branch Saddles - Class 250	2, 4, 6, 8, 10, 12	250 (1725)	d,e

**Remarks:**

- a. Pipe and fittings may be directly connected together by the butt fusion process. Manufacturer's fusion instructions must be strictly followed for a proper fusion joint. The fittings may also be joined to other FM Approved flanged pipe and fittings by using the listed flange adapters.
- b. Provides transition between polyethylene pipe or fittings, using the butt fusion process, to threaded steel pipe or steel pipe provided with a weld-end or flanged.
- c. The electrofusion couplings are designed to join two adjacent lengths of high density polyethylene pipe. The electrofusion branch saddles mount directly on the outside diameter of lengths of high density polyethylene pipe.. Manufacturer's installation and assembly recommendations must be strictly followed for a proper joint.
- d. FM Approved in IPS sizes
- e. Provide a fitting to be butt fused to a straight length of pipe in order to form a tee. The Butt Fusion Branch Saddles are FM Approved for use with run pipe diameters from 4 through 48 inch. Saddles are Approved when machined for either DIPS or IPS run pipe.



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## Polyethylene Pipe and Fittings

<i>Product Designation</i>	<i>Nominal Pipe Size, in.</i>	<i>Pressure Rating, psi (kPa)</i>	<i>Remarks</i>
Design-Flow Class 200 Pipe, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a, b, d, e
Design-Flow Class 250 Pipe, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1720)	a, b, d, e
Design-Flow Class 335 Pipe, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	a, b, d, e
Design-Flow Class 200 Pipe, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	200 (1380)	a, b, d, e
Design-Flow Class 250 Pipe, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	250 (1720)	a, b, d, e
Design-Flow Class 335 Pipe, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	a, b, d, e
Class 200 Flange Adapter, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36	200 (1380)	a
Class 250 Flange Adapter, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30	250 (1720)	a
Class 335 Flange Adapter, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	a
Class 200 Flange Adapter, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	200 (1380)	a
Class 250 Flange Adapter, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	250 (1720)	a
Class 335 Flange Adapter, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	a
Class 200 Bolt Ring, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36	200 (1380)	c
Class 250 Bolt Ring, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30	250 (1720)	c
Class 335 DI Bolt Ring, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	—
Class 200 Bolt Ring, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	200 (1380)	c



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<i>Product Designation</i>	<i>Nominal Pipe Size, in.</i>	<i>Pressure Rating, psi (kPa)</i>	<i>Remarks</i>
Class 250 Bolt Ring, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	250 (1720)	c
Class 335 DI Bolt Ring, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	—
Class 335 SS Bolt Ring, IPS	2, 3, 4, 6, 8, 10, 12	335 (2310)	—
Class 335 SS Bolt Ring, DIPS	4, 6, 8, 10, 12	335 (2310)	—
Class 200 Concentric Reducer, IPS	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
Class 250 Concentric Reducer, IPS	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 (1720)	a
Class 335 Concentric Reducer, IPS	4x2, 6x4, 8x6, 10x8, 12x10, 14x12, 16x14, 18x16, 20x18, 22x20, 24x22	335 (2310)	a
Class 200 Concentric Reducer, DIPS	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	200 (1380)	a
Class 250 Concentric Reducer, DIPS	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	250 (1720)	a
Class 335 Concentric Reducer, DIPS	6x4, 8x6, 10x8, 12x10, 14x12, 16x14, 18x16, 20x18, 24x20	335 (2310)	a
Class 185 Branch Saddle, IPS	2, 3, 4, 6, 8, 10, 12	185 (1275)	a
Class 250 Branch Saddle, IPS	2, 3, 4, 6, 8, 10, 12	250 (1720)	a
Class 185 Branch Saddle, DIPS	4, 6, 8, 10, 12	185 (1275)	a
Class 250 Branch Saddle, DIPS	4, 6, 8, 10, 12	250 (1720)	a
Class 200 Wall Anchor, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a
Class 250 Wall Anchor, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1720)	a
Class 335 Wall Anchor IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	a



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<i>Product Designation</i>	<i>Nominal Pipe Size, in.</i>	<i>Pressure Rating, psi (kPa)</i>	<i>Remarks</i>
Class 200 Wall Anchor, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a
Class 250 Wall Anchor, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1720)	a
Class 335 Wall Anchors, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	a
Class 200 MJ Adapter, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a
Class 250 MJ Adapter, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18	250 (1720)	a
Class 335 MJ Adapter, IPS	4, 6, 8, 10, 12, 14, 16	335 (2310)	a
Class 200 MJ Adapter, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a
Class 250 MJ Adapter, DIPS	4, 6, 8, 10, 12, 14, 16, 18	250 (1720)	a
Class 335 MJ Adapter, DIPS	4, 6, 8, 10, 12, 14, 16	335 (2310)	a
Class 200 Ductile Iron MJ Adapter Gland Kit	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	f
Class 250 Ductile Iron MJ Adapter Gland Kit	2, 3, 4, 6, 8, 10, 12, 14, 16, 18	250 (1720)	f
Class 335 Ductile Iron MJ Adapter Gland Kit	4, 6, 8, 10, 12, 14, 16	335 (2310)	f
Class 200 Fabricated Elbow $\leq 90^\circ$ any number of segments, IPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a
Class 250 Fabricated Elbow $\leq 90^\circ$ any number of segments, IPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1720)	a
Class 250 Reinforced Elbow $45^\circ$ 2 Segments, IPS	16, 18	250 (1720)	a
Class 250 Reinforced Elbow $90^\circ$ 3 Segments, IPS	14, 16, 18	250 (1720)	a
Class 335 Fabricated Elbow, $\leq 90^\circ$ , IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	a



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<i>Product Designation</i>	<i>Nominal Pipe Size, in.</i>	<i>Pressure Rating, psi (kPa)</i>	<i>Remarks</i>
Class 200 Fabricated Elbow ≤ 90° any number of segments, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a
Class 250 Fabricated Elbow ≤ 90° any number of segments, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1720)	a
Class 335 Fabricated Elbow, ≤ 90°, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	a
Class 200 Fabricated Line Tee, IPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a
Class 250 Fabricated Line Tee, IPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1720)	a
Class 250 Reinforced Line Tee, IPS	16, 18	250 (1720)	a
Class 35 Fabricated Equal Tee, IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	335 (2310)	a
Class 200 Fabricated Line Tee, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	200 (1380)	a
Class 250 Fabricated Line Tee, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	250 (1720)	a
Class 335 Fabricated Equal Tee, DIPS	4, 6, 8, 10, 12, 14, 16, 18, 20, 24	335 (2310)	a
Class 185 Branch Saddle Reducing Tee, IPS	4 thru 24 main x 2 thru 12 outlet	85 (1275)	a
Class 185 Branch Saddle Reducing Tee, DIPS	6 thru 24 main x 4 thru 12 outlet	185 (1275)	a
Class 250 Branch Saddle Reducing Tee, IPS	4 thru 24 main x 2 thru 12 outlet	250 (1720)	a
Class 250 Branch Saddle Reducing Tee, DIPS	6 thru 24 main x 4 thru 12 outlet	250 (1720)	a
Class 335 Branch Saddle Reducing Tee, IPS	4 thru 12 main x 2 thru 8 outlet	335 (2310)	a



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<i>Product Designation</i>	<i>Nominal Pipe Size, in.</i>	<i>Pressure Rating, psi (kPa)</i>	<i>Remarks</i>
Class 335 Branch Saddle Reducing Tee, IPS	14x2, 14x4, 14x6, 14x8, 14x10, 16x2, 16x4, 16x6, 16x8, 16x10, 16x12, 18x2, 18x4, 18x6, 18x8, 18x10, 18x12, 20x2, 20x4, 20x6, 20x8, 20x10, 20x12, 20x14, 20x16, 20x18, 22x2, 22x4, 22x6, 22x8, 22x10, 22x12, 22x14, 22x16, 22x18, 24x2, 24x4, 24x6, 24x8, 24x10, 24x12, 24x14, 24x16, 24x18	335 (2310)	a
Class 335 Branch Saddle Reducing Tee, DIPS	6 thru 12 main x 4 thru 8 outlet	335 (2310)	a
Class 335 Branch Saddle Reducing Tee, DIPS	14x4, 14x6, 14x8, 14x10, 16x4, 16x6, 16x8, 16x10, 16x12, 18x4, 18x6, 18x8, 18x10, 18x12, 20x4, 20x6, 20x8, 20x10, 20x12, 20x14, 20x16, 20x18, 24x4, 24x6, 24x8, 24x10, 24x12, 24x14, 24x16, 24x18	335 (2310)	a
Class 200 Tees Molded IPS	2, 3, 4, 6	200 (1380)	a
Class 250 Tees Molded IPS	2, 3, 4, 6	250 (1720)	a
Class 200 90° Elbows Molded IPS	2, 3, 4, 6	200 (1380)	a
Class 250, 90° Elbows Molded IPS	2, 3, 4, 6	250 (1720)	a
Class 200, 45° Elbows Molded IPS	3, 4, 6	200 (1380)	a
Class 250, 45° Elbows Molded IPS	3, 4, 6	250 (1720)	a
Class 200 Concentric Molded Reducer	3 x 2, 4 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	200 (1380)	a
Class 250 Concentric Molded Reducer	3 x 2, 4 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	250 (1720)	a
Butterfly Flange Adapters IPS	2, 3, 4, 6, 8, 10, 12, 14, 16, 18	250 (1720)	a

**Remarks:**

- a. Pipe and Fittings may be directly connected together by the butt fusion process. Manufacturer's fusion instructions must be strictly followed for a proper fusion joint.
- b. Pipe may also be provided with flange adapters and back-up rings and bolted together. Bolt rings must be pressure rated at or above the pressure rating of the pipe on which they are installed.



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- c. Class 150 and 200 bolt rings are FM Approved when supplied in stainless steel or ductile iron with red or blue primer, epoxy coating or galvanized coating. Stainless steel bolt rings are only FM Approved up to 24 inch in both Class 150 and 200 and both IPS and DIPS.
- d. Pipe may be supplied as black with or without any color stripe.
- e. Pipe may be marked with the FM Approval Mark and any combination of NSF, AWWA or ASTM designation.
- f. The polyethylene fitting, gland ring, gasket, and T-Head bolts are provided in a kit for field installation, which allows attachment to a compatible mechanical joint pipe or fitting.



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