



**Summary of Substantive Changes  
between the 2017 and 2020 editions of  
ASTM F2648 “Standard Specification for 2 to 60 inch [50 to 1500 mm] Annular  
Corrugated Profile Wall Polyethylene (PE) Pipe and Fittings for Land Drainage  
Applications”**

**Presented to the IAPMO Standards Review Committee on June 15, 2020**

**General:** The changes to this standard should not have an impact on currently listed products. The significant change is:

- Revised the impact resistance test procedure to separate sizes into 2-10 in and 10-18 in (see Sections 7.7, 7.7.1, and 7.7.2)

Section 7.7, Impact Resistance: Revised the impact resistance test procedure to separate sizes into 2-10 in and 10-18 in as follows:

*7.7 Impact Resistance—Test pipe specimens in accordance with Test Method D2444 except six specimens shall be tested, or six impacts shall be made on one specimen. In the latter case, successive impacts shall be separated by  $120 \pm 10^\circ$  for impacts made on one circle, or at least 12 in. [305 mm] longitudinally for impacts made on one element. Impact points shall be at least 6 in. [150 mm] from the end of the specimen. ~~Impact strength shall not be less than 100 ft-lbs [136J].~~ ~~Tup B shall be used and use a flat plate specimen holder.~~*

*Condition the specimens for 24 h at a temperature of  $24 \pm 3.5^\circ\text{F}$  [ $-4 \pm 2^\circ\text{C}$ ], and conduct all tests within ~~120~~ 60 s of removal from this atmosphere. ~~The center of the falling tup shall strike on a corrugation crown for all impacts. All impacts shall be made at the center line of the specimen.~~*

*7.7.1 In sizes 2 to ~~18~~ 10 in. [50 to ~~450~~ 250 mm], the test specimens shall be equal in length to ~~the greater of 12 in [300 mm] or the nominal diameter.~~ Use Tup B weighing 2.5 kg [5.5 lbs]; the height of the drop shall be 5 ft [1.5 m]. Use a flat-plate specimen holder. The center of the falling tup shall strike on a corrugation crown for three specimens and between crowns for three specimens. Five non-failures are acceptable. Fittings shall be assembled on appropriate size pipe for testing.*

*7.7.2 In sizes 12 to 18 in. [50 to 450 mm] the test specimens shall be equal in length to the greater of 12 in. [300 mm] or the nominal diameter. In sizes 21 to 60 in. [750 to 1500 mm] the test specimens shall be equal in length to one-half of the nominal diameter but not less than 18 in. [457 mm]. Minimum lengths of test specimens must be adequate to meet the multiple test positions required in 7.7. Impact strength shall not be less than 100 ft-lbs [136 J]. Tup B shall be used and use a flat plate specimen holder. The center of the falling tup shall strike on a corrugation crown for all impacts. All impacts shall be made at the center line of the specimen.*