NSF International
Special Engineered Specification
NSF SE 14317

Polypropylene (PP) DWV Fittings

The Public Health and Safety Company.™

SPECIFICATIONS FOR A SPECIAL ENGINEERED (SE) PRODUCT

NSF SE 14317

Polypropylene (PP) DWV Fittings

1. Purpose:
This specification defines the product specific requirements for PP DWV fittings whose material, dimensions, and construction fall outside the scope of ASTM D2665.

2. Scope of Specification:
This specification identifies the application, reference documents, testing requirements, material requirements, product marking, and in-plant quality control testing for PP DWV fittings falling outside the scope of ASTM D2665.

3. Application:
Products meeting the requirements of this specification are for use in drain, waste, and vent applications.

4. Reference Documents:
ASME B1.20.1 – Pipe Threads, General Purpose (Inch)
ASTM D618 – Practice for Conditioning Plastics for Testing
ASTM D1600 – Terminology for Abbreviated Terms Relating to Plastics
ASTM D2122 – Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings
ASTM D2444 – Test Method for Determination of the Impact Resistance of Thermoplastic Pipe and Fittings by Means of a Tup (Falling Weight)
ASTM D2665 – Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings
ASTM D3212 – Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
ASTM D4101 – Specification for Polypropylene Injection and Extrusion Materials
ASTM D4396 – Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds for Plastic Pipe and Fittings Used in Nonpressure Applications
ASTM F412 – Terminology Relating to Plastic Piping Systems
ASTM F477 – Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
ASTM F1498 – Specification for Taper Pipe Threads 60° for Thermoplastic Pipe and Fittings
NSF Standard 14 – Plastic Piping System Components and Related Materials

5. Testing Requirements:

5.1 – Fittings

5.1.2 - Workmanship and Dimensions

5.1.2.1 – Workmanship – Fittings shall not, upon a visual inspection, contain imperfections that would interfere with the performance of the DWV system it is used with.

5.1.3 – Dimensions – Fittings produced against this specification shall be per the manufacturer's specifications.

5.1.3.1 – Threads – Tapered threads shall comply with the requirements of ASTM D2665 section 7.5, Straight threads shall comply with ASME B1.20.1

5.1.4 – Deflection Load – Fittings shall meet the deflection load requirements specified in ASTM D2665 Section 6.3.2 when tested per ASTM D2412.

5.1.5 – Impact Resistance – Fittings shall meet the impact resistance requirements specified in ASTM D2665 section 6.5 when tested per ASTM D2444.

5.2 – Joints

5.3.1 – Flexible Elastomeric Seals –Fittings with flexible watertight elastomeric seals shall meet the requirements specified in ASTM D3212.

5.3.2 – Gaskets – Gaskets shall meet the requirements specified in ASTM F477.

6. Materials:

6.1 – Fitting Material Requirements

6.1.1 – Polypropylene (PP) virgin material shall meet the requirements for polypropylene Group 01, 02 or 03, as defined in Specification D4101.

6.1.2 – Rework Material – Clean rework material generated from the manufacturer's own pipe or fitting products may be used by the same manufacturer, using the same type and grade resin, provided that the pipe or fittings produced meet the requirements of this specification.

7. Product Marking:

7.1 - Fittings

7.1.1 – The following minimum requirements shall be permanently and legibly marked on the PVC DWV Fitting:
NSF® dwv SE
Manufacturer or the manufacturer's authorized trademark

7.1.2 – If recessed marking is used on the Fittings then the recessed marking shall not cause cracks or reduce the wall thickness below the minimum specified.

8. In-plant Q.C. Requirements:

The following tests are to be performed at start-up and at the designated frequencies thereafter. These tests shall be performed in accordance with Section 5 of this document:

Test	Frequency
Deflection load and crush	Annually
Dimensions [1]	2 h
Impact @ 22.8ºC (73ºF)	Weekly
Stiffness	Annually
Flattening	Annually
Joint testing per ASTM D3212 [2]	Annually

[1] Plug gauges are permitted provided the mold has been qualified by complete dimensioning and performance of appropriate testing on all products from all mold cavities to verify compliance with the referenced standard.

[2] Fittings with flexible watertight elastomeric seals shall meet the requirements specified in ASTM D3212.