



## **NSF International**

Special Engineered Specification  
NSF SE 16458

Polyethylene of Raised  
Temperature (PE-RT)  
Plastic Hot and Cold-Water  
Tubing For Use with ASTM  
F1960 Fittings & PEX  
Reinforcing Rings

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## NSF SE 16458

### Specifications for a Special Engineered (SE) Product

#### Polyethylene of Raised Temperature (PE-RT) Plastic Hot and Cold-Water Tubing For Use with ASTM F1960 Fittings & PEX Reinforcing Rings

**1. Purpose:**

This specification establishes requirements for polyethylene of raised temperature (PE-RT) plastic hot- and cold-water tubing and distribution systems components not covered under the scope of ASTM F2769, made in one standard dimension ratio, and intended for 100 psig (6.9 bar) water service up to and including a maximum working temperature of 180°F (82°C).

**2. Scope of Specification:**

This specification covers the required initial testing, marking, in-plant QC and annual testing requirements for PE-RT tubing intended for use with ASTM F1960 fittings and PEX reinforcing rings.

**3. Reference Documents:**

ASTM Standards:

ASTM F2769 Standard Specification for Polyethylene of Raised Temperature (PE-RT) Plastic Hot and Cold-Water Tubing and Distribution Systems.

F1960 Standard Specification for Cold Expansion Fittings with PEX Reinforcing Rings for Use with Cross-linked Polyethylene (PEX) Tubing

NSF Standards:

NSF/ANSI Standard 14 Plastic Piping System Components

**4. Materials:**

The polyethylene material used for PE-RT tubing shall meet the material property requirements outlined under ASTM F2769.

**5. Requirements:**

PE-RT tubing shall meet all requirements outlined under ASTM F2769 when tested with ASTM F1960 fittings and PEX reinforcing rings.

**6. Product Marking:**

Marking shall be in accordance with the requirements outlined under ASTM F2769 with the exception of the ASTM designation. Product shall be marked "SE".

**7. In-plant Q.C. Requirements:**

Q.C. requirements shall be in accordance with NSF/ANSI Standard 14, Table 10A for PE-RT tubing.