



Product Test Report

PTR-4139

Swagelok Company
29500 Solon Road
Solon, Ohio 44139 U.S.A.

Ver 02
July 2022
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TITLE

Thermal Cycle Test of Swagelok® U Series Hose Assemblies

PRODUCT TESTED

The following Swagelok U series PFA hose assemblies were tested.

Ordering Number	Hose Size in.	Test Quantity
SS-UT24KE24KE24-14	1.5	1
SS-UT24KE24KE24-15	1.5	1
SS-UT24PM24PM24-19	1.5	1
SS-UT32PM32PM32-18	2	3

PURPOSE

The hose assemblies were tested under laboratory conditions to observe for any core tube bulging of silicone near the end connection of the hose assembly.

TEST CONDITIONS

Original test date: July 2016

- Test media: N/A
- Testing temperature: 265°F (129°C) and 33°F (0°C)

TEST METHOD

1. The samples were placed in an environmental chamber and each underwent the following cycle:
 - a. Ramp temperature up to 265°F (129°C) over a 30 minute period.
 - b. Soak at 265°F (129°C) for 60 minutes.
 - c. Ramp temperature down to 33°F (0°C) over a 30 minute period.
 - d. Soak at 33°F (0°C) for 60 minutes.
2. The cycle was repeated 45 times, with visual inspections on the inner diameter every 15 cycles.
3. Samples passed if the assemblies did not develop an core tube bulging of silicone.



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TEST RESULTS

Ordering Number	Hose Size in.	Test Quantity	Number of Cycles	Samples Passed
SS-UT24KE24KE24-14	1.5	1	45	1 / 1
SS-UT24KE24KE24-15	1.5	1	45	1 / 1
SS-UT24PM24PM24-19	1.5	1	45	1 / 1
SS-UT32PM32PM32-18	2	3	45	3 / 3

This test was performed to consider a specific set of conditions and should not be considered valid outside those conditions. Swagelok Company makes no representation or warranties regarding these selected conditions or the results attained. Laboratory tests cannot duplicate the variety of actual operating conditions. Test results are not offered as statistically significant. See the product catalog for technical data.

SAFE PRODUCT SELECTION

When selecting a product, the total system design must be considered to ensure safe, trouble-free performance. Function, material compatibility, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system designer and user.

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