American Society of Sanitary Engineering
Seal (Certification) Program

Laboratory Evaluation Report For:
Removable and Non-Removable Push-Fit Fittings

Tested under ASSE Standard 1061 • Revised: 2006

Laboratory File Number: _____

Manufacturer_____

Address_____

Size: _____

Model No. Selected for Full Test: _____

Configurations & Model No: _____ _____

_____ _____

_____ _____

_____ _____

_____ _____

General information and instructions for the testing engineer:

Within the text there may be items which are only advisory to conditions which experience indicates could be troublesome. It is not for evaluation related to acceptance of the product.

There may be other items for which the judgment of the test engineer will be involved. Should there be a question of compliance with that provision of the standard, a conference with the manufacturer should be arranged to enable a satisfactory solution of the question.

Should disagreement persist and compliance remain in question by the test agency, the agency shall, if the product is in compliance with all other requirements of the standard, file a complete report on the questionable items together with the test report, for evaluation by the ASSE Seal Control Board. The Seal Control Board will then review and rule on the question of compliance with the intent of the standard item involved.

Documentation of material compliance must be furnished by the manufacturer. He shall furnish to the testing agency, a bill of material which clearly identifies the material of each part included in the product construction. This identification must include any standards which relate thereto.

Date Submitted for Review _____ Date Review Complete _____

Were the test units production models? ☐ Yes ☐ No

or prototypes? ☐ Yes ☐ No

Section I

1.0 General

1.1 Application

Does this application apply to removable or non-removable push-fit fittings intended for domestic or commercial applications for potable water distribution systems or hydronic heating systems?

☐ Yes
☐ No

1.2 Scope

Do the fittings submitted for testing conform to the products described in this standard?

☐ Yes
☐ No

1.2.1 Description

Identify the tubing material on which these fittings can be used:

☐ PEX Type
☐ Copper
☐ CPVC

1.2.3 Minimum Pressure

What is the working pressure as noted by the manufacturer? _____ psi (_____ kPa)

1.2.4 Minimum Temperature Range

What is the temperature range as noted by the manufacturer?

Minimum: _____ °F (_____ °C)
Maximum: _____ °F (_____ °C)

2.0 Test Specimens

2.1 Were fittings of each type by size on which approval is being sought submitted for evaluation?

☐ Yes
☐ No

Identify the types of tubing to be used in this evaluation:

☐ PEX Type
☐ Copper
☐ CPVC

Were any integral push-fit connectors in plumbing devices submitted for evaluation?

☐ Yes
☐ No

Identify each device: _____

2.3 Were assembly and installation drawings and other data which are needed to enable a testing agency to determine compliance with this standard submitted with the fittings?

☐ Yes
☐ No

3.0 Performance Requirements and Compliance Testing

NOTE: ALL REQUESTS FOR MEASUREMENT OF PRESSURE, TEMPERATURE, DISTANCE, TIME, ETC. ARE TO BE SHOWN TO AT LEAST ONE (1) DECIMAL POINT.

3.1 Hydrostatic and Air Pressure Test

3.1.2 What was the test temperature used for fitting # 1?:

PEX: _____ °F (_____ °C)
Copper: _____ °F (_____ °C)
CPVC: _____ °F (_____ °C)

What was the test temperature used for fitting #2?

PEX: _____ °F (_____ °C)
Copper: _____ °F (_____ °C)
CPVC: _____ °F (_____ °C)

Were each fitting/tubing assembly conditioned to the appropriate temperature for at least one (1) hour prior to testing?

☐ Yes
☐ No

What was the test pressure used for fitting #1?

PEX: _____ psi (_____ KPa)
Copper: _____ psi (_____ KPa)
CPVC: _____ psi (_____ KPa)

What was the test pressure used for fitting #2?

PEX: _____ psi (_____ KPa)
Copper: _____ psi (_____ KPa)
CPVC: _____ psi (_____ KPa)

What was the test duration for the fittings?

Fitting #1:	_____ hours	Fitting #2:	_____ hours
	_____ hours		_____ hours
	_____ hours		_____ hours

What was the air pressure applied to fitting #1 following the 720 hour water test?

_____ psi (_____ kPa)
_____ psi (_____ kPa)
_____ psi (_____ kPa)

What was the air pressure applied to fitting #2 following the 720 hour water test?

_____ psi (_____ kPa)
_____ psi (_____ kPa)
_____ psi (_____ kPa)

What was the water temperature used in the air pressure test for the fittings?
_____°F (_____°C)

3.1.3 Were there any signs of leakage or damage during the pressure tests with water or air?

Fitting #1: (PEX)	☐ Yes ☐ No	Fitting #2: (PEX)	☐ Yes ☐ No

Fitting #1: (Copper)	☐ Yes ☐ No	Fitting #2: (Copper)	☐ Yes ☐ No
Fitting #1: (CPVC)	☐ Yes ☐ No	Fitting #2: (CPVC)	☐ Yes ☐ No

Were the fittings in compliance with all the requirements of Section 3.1?

☐ Yes
☐ No

3.2 Thermal Cycling Test

In accordance with ASTM Standard F877-05:

What was the pressure used for this cycling test? _____ psi (_____ kPa)
What were the high and low temperatures used? High: _____°F (_____°C)
Low: _____°F (_____°C)
How many cycles were the fittings subjected to? _____
Describe one test cycle: _____
How many fittings and which type were used for this test? _____

3.3 Mechanical Separation Test

3.3.2 Identify each type of tubing used for the separation test :

☐ PEX Type
☐ Copper
☐ CPVC

Were each fitting and tubing material conditioned in ambient [75.0°F (23.9°C) Maximum] water for at least one (1) hour prior to the separation test?

☐ Yes
☐ No

What was the test load applied to each assembly? _____lbf (_____N) PEX
_____lbf(_____N) Copper
_____lbf (_____N) CPVC

For what period of time was the test load maintained on each assembly?

PEX: _____ hours
Copper:_____ hours
CPVC: _____ hours

Following the separation test was each assembly pressurized with air to 100.0 psi ± 10.0 psi (689.5 kPa ± 69.0 kPa) and immersed in water at 75.0°F ± 5.0°F (23.9°C ± 2.8°C)?

☐ Yes
☐ No

Were there any signs of leakage, damage or separation as a result of the mechanical separation test on any of the assemblies?

PEX: ☐ Yes ☐ No
Copper: ☐ Yes ☐ No
CPVC: ☐ Yes ☐ No

Were the fittings in compliance with all the requirements of Section 3.3? ☐ Yes ☐ No

3.4 Hydrostatic Rupture Test

3.4.2 Identify each type of tubing used for the rupture test: ☐ PEX Type ☐ Copper ☐ CPVC

Were each fitting/tubing assembly conditioned for at least one (1) hour to the appropriate temperature prior to the rupture test? ☐ Yes ☐ No

What was the burst pressure used for each assembly?

PEX [75°F (23.9 °C)] _____ psi (_____ kPa)
PEX [180°F (82.2°C)] _____ psi (_____ kPa)
Copper [75°F (23.9 °C)] _____ psi (_____ kPa)
Copper [180°F (82.2°C)]_____ psi (_____ kPa)
CPVC [75°F (23.9 °C)] _____ psi (_____ kPa)
CPVC [180°F (82.2°C)] _____ psi (_____ kPa)

3.4.3 Were the fittings in compliance with all the requirements of section 3.4? ☐ Yes ☐ No

3.5 Bending Test (PEX Tubing Only)

3.5.2 Were the fitting/tubing assemblies conditioned in ambient [75.0°F (23.9°C) Maximum] water for at least one (1) hour prior to this bending test? ☐ Yes ☐ No

What was the hydrostatic pressure applied to the fitting? _____ psi (_____ kPa)

What was the water temperature used for this test? _____ °F (_____°C)

How long was the pressure held? _____ minutes

3.5.3 Was there any indication of leakage or weeping from the assemblies? ☐ Yes ☐ No

Were the fittings in compliance with all the requirements of section 3.5? ☐ Yes ☐ No

3.6 Bending Test for Rigid Tubing (CPVC and Copper)

3.6.2 What was the concentrated load applied to the center of the test span? _____ lbf (_____ N)
What was the hydrostatic internal-pressure applied? _____ psi (_____ kPa)
How long was the pressure applied? _____ hours
What was the temperature of the water used for the pressure source? _____°F (_____°C)

3.6.3 Was there any indication of leakage or weeping from the assembly? ☐ Yes ☐ No

Were the fittings in compliance with all the requirements of Section 3.6? ☐ Yes ☐ No

3.7 Hydraulic Shock (Water Hammer) Test

3.7.2 What was the water pressure used for each type of tubing?

PEX: _____ psi (_____ kPa)
Copper: _____ psi (_____ kPa)
CPVC: _____ psi (_____ kPa)

How many cycles was the fitting subjected to? _____ cycles

What was the temperature of the water used to subject the fitting to pressure?

PEX: _____ °F (_____ °C)
Copper: _____ °F (_____ °C)
CPVC: _____ °F (_____ °C)

The hydraulic shock consisted of what pressure being applied to the fitting?

PEX: _____ psi (_____ kPa)
Copper: _____ psi (_____ kPa)
CPVC: _____ psi (_____ kPa)

3.7.3 Was there any indication of leakage, damage or separation from the tubing during the shock test?

PEX: ☐ Yes ☐ No
Copper: ☐ Yes ☐ No
CPVC: ☐ Yes ☐ No

Were the fittings in compliance with all the requirements of Section 3.7? ☐ Yes ☐ No

4.0 Materials

4.1

4.1.1 Did any copper alloys in contact with potable water exceed 8% lead? ☐ Yes ☐ No

4.1.2 Do all components of the fitting in contact with potable water comply with applicable requirements of NSF/ANSI 61? ☐ Yes ☐ No

4.1.3 Are all stainless components made of Series 300 s/s complying with ASTM A240? ☐ Yes ☐ No

4.1.4 Do all polymers comply with ASTM Standards? ☐ Yes ☐ No

4.1.4 Do all springs have a corrosion resistance at least equal to Series 300 s/s? ☐ Yes ☐ No

4.2 Transition Fitting Connections

Do fittings comply with the applicable requirements of this section? ☐ Yes ☐ No

4.3 Marking Instructions

List the markings on the fittings: _____

How were the markings applied to the device? _____

4.4 Installation Instructions

Were installation instructions supplied with the fittings? ☐ Yes ☐ No

TESTING AGENCY _____

ADDRESS _____

PHONE: _____ FAX: _____

TEST ENGINEER(S) _____

We certify that the evaluations are based on our best judgments and that the test data recorded is an accurate record of the performance of the device on test.

Signature of the official of the agency: _____

Title of the official: _____ Date: _____

Signature and seal of the Registered Professional Engineer supervising the laboratory evaluation:

_____
Signature

Seal