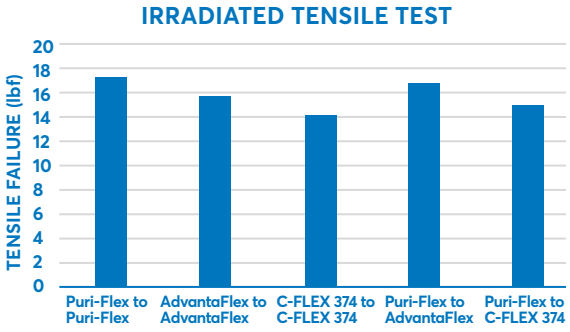
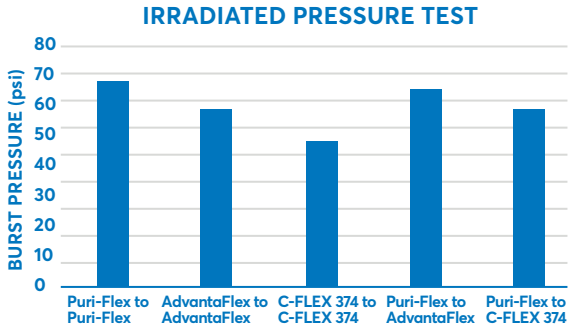
# Puri-flex Tube Testing:
# Weld Burst and Tensile Failure

## Weld Burst and Tensile Testing Results Gamma Irradiated – Puri-flex Tubing™

**GAMMA IRRADIATED TUBE WELD TEST DATA (.125 I.D by .250 O.D Tubing) - Sartorius Welder**

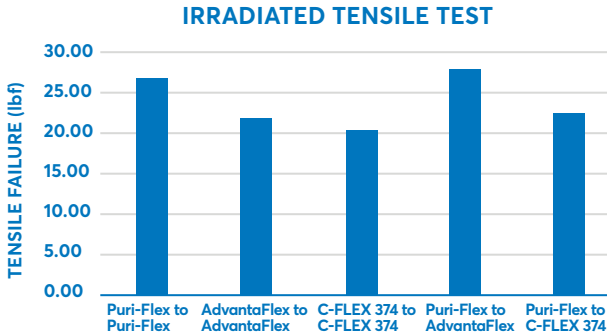
| Tube | Samples Tested | Average Tensile Failure (lbf) | Average Burst Pressure (psi) |
|---|---|---|---|
| Puri-Flex™to Puri-Flex™ | 10 | 17.29 | 106.21 |
| AdvantaFlex® to AdvantaFlex® | 10 | 15.6 | 91.26 |
| C-FLEX 374 to C-FLEX 374 | 10 | 14.22 | 77.33 |
| Puri-Flex to AdvantaFlex | 10 | 16.88 | 99.50 |
| Puri-Flex™to C-FLEX 374 | 10 | 15.04 | 82.19 |

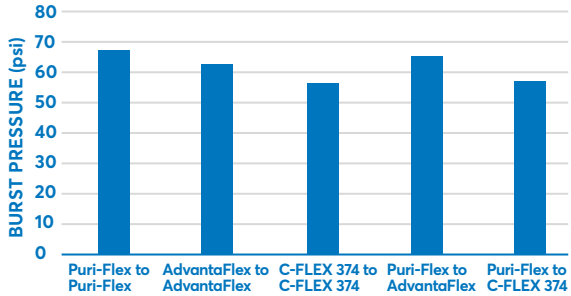



**GAMMA IRRADIATED TUBE WELD TEST DATA (.250 I.D by .375 O.D Tubing) - Sartorius Welder**

| Tube | Samples Tested | Average Tensile Failure (lbf) | Average Burst Pressure (psi) |
|---|---|---|---|
| Puri-Flex™ to Puri-Flex™ | 10 | 27.66 | 67.72 |
| AdvantaFlex® to AdvantaFlex® | 10 | 21.96 | 65.05 |
| C-FLEX 374 to C-FLEX 374 | 10 | 20.31 | 55.34 |
| Puri-Flex to AdvantaFlex | 10 | 27.79 | 65.27 |
| Puri-Flex to C-FLEX 374 | 10 | 22.61 | 57.86 |




## Test Procedure

### Gamma Irradiation

All tubes were dosed between 25 kGy and 50 kGy.

### Welding Procedure

All tubes were welded In a Sartorius welder with standard settings. Puri-Flex did not have a setting optimized for it, so the C-Flex 374 setting was used. Tensile samples were created with a first use blade, and pressure samples with a second use blade. Samples for tensile and pressure testing were made to be 4" and 6" long respectively.

### Tensile Test Procedure

All samples were pulled in a MARK 10 test stand at 20 inches/ minute until failure occurred. The failure mode and force at which a failure occurred was recorded.

### Pressure Test Procedure

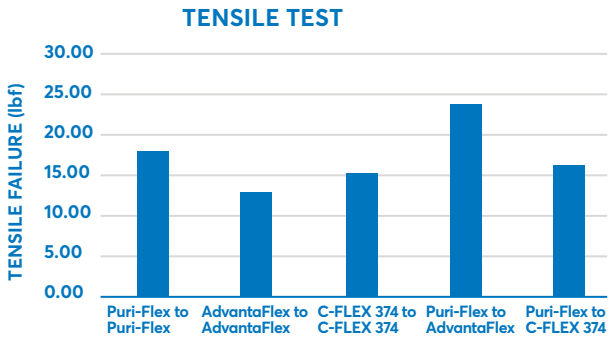
All tubes were tested with a closed loop hydrostatic testing system on barbed fittings, secured with nylon Handy Clamps. Tubes are bled of all air to maintain consistent accurate results. Pressure is slowly increased until failure is observed. Failure mode and maximum pressure is recorded.

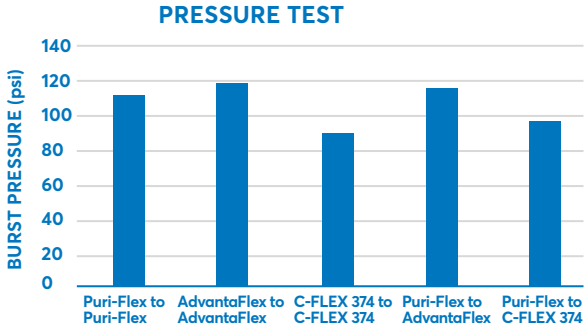
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## Weld Burst and Tensile Testing Results Non-Irradiated – Puri-flex Tubing™

**TUBE WELD TEST DATA (.125 I.D by .250 O.D Tubing) - Sartorius Welder**

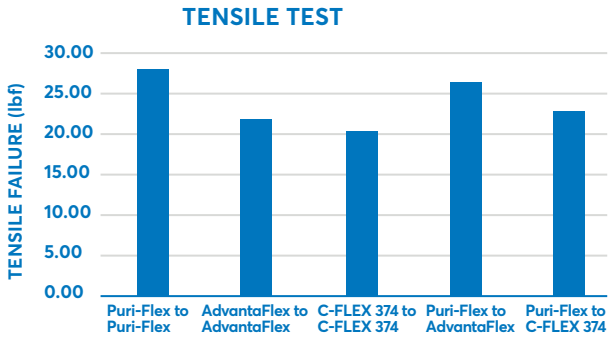
| Tube | Samples Tested | Average Tensile Failure (lbf) | Average Burst Pressure (psi) |
|---|---|---|---|
| Puri-Flex™to Puri-Flex™ | 6 | 17.98 | 110.31 |
| AdvantaFlex® to AdvantaFlex® | 6 | 12.90 | 119.21 |
| C-FLEX 374 to C-FLEX 374 | 6 | 15.09 | 89.49 |
| Puri-Flex to AdvantaFlex | 6 | 23.92 | 116.18 |
| Puri-Flex™to C-FLEX 374 | 6 | 16.23 | 97.80 |

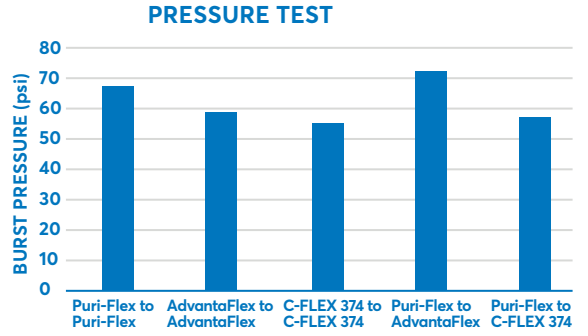



**TUBE WELD TEST DATA (.250 by .375 O.D Tubing) - Sartorius Welder**

| Tube | Samples Tested | Average Tensile Failure (lbf) | Average Burst Pressure (psi) |
|---|---|---|---|
| Puri-Flex™to Puri-Flex™ | 6 | 27.18 | 67.77 |
| AdvantaFlex® to AdvantaFlex® | 6 | 21.11 | 59.94 |
| C-FLEX 374 to C-FLEX 374 | 6 | 20.49 | 57.34 |
| Puri-Flex to AdvantaFlex | 6 | 26.48 | 71.64 |
| Puri-Flex™to C-FLEX 374 | 6 | 22.56 | 58.54 |




## Test Procedure

### Welding Procedure

All tubes were welded In a Sartorius welder with standard settings. Puri-Flex did not have a setting optimized for it, so the C-Flex 374 setting was used. Tensile samples were created with a first use blade, and pressure samples with a second use blade. Samples for tensile and pressure testing were made to be 4" and 6" long respectively.

### Tensile Test Procedure

All samples were pulled in a MARK 10 test stand at 20 inches/ minute until failure occurred. The failure mode and force at which a failure occurred was recorded..

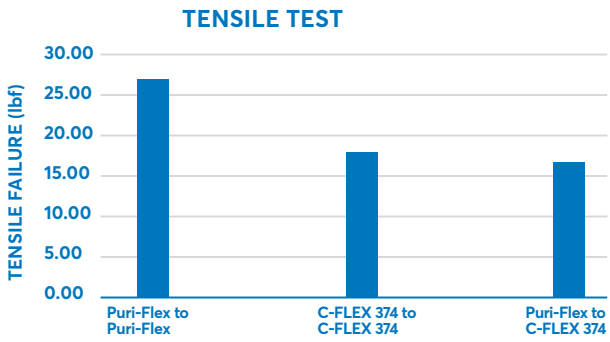
### Pressure Test Procedure

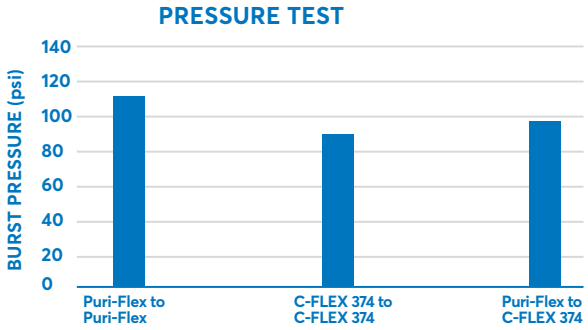
All tubes were tested with a closed loop hydrostatic testing system on barbed fittings, secured with nylon Handy Clamps. Tubes are bled of all air to maintain consistent accurate results. Pressure is slowly increased until failure is observed. Failure mode and maximum pressure is recorded.

## Weld Burst and Tensile Testing Results Non-Irradiated – Puri-flex Tubing™

**TUBE WELD TEST DATA (.125 I.D by .250 O.D Tubing) - Terumo Welder**

| Tube | Samples Tested | Average Tensile Failure (lbf) | Average Burst Pressure (psi) |
|---|---|---|---|
| Puri-Flex™to Puri-Flex™ | 10 | 26.80 | 117.05 |
| C-FLEX 374 to C-FLEX 374 | 10 | 18.30 | 85.20 |
| Puri-Flex™to C-FLEX 374 | 10 | 16.76 | 90.35 |

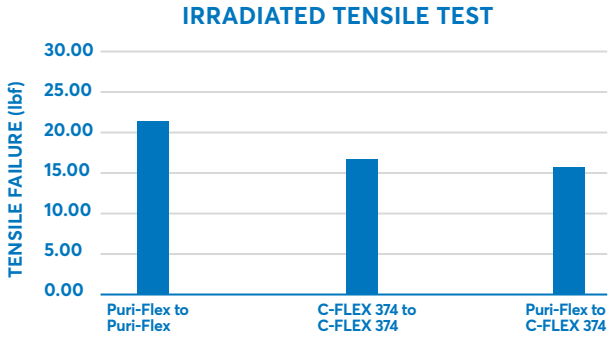


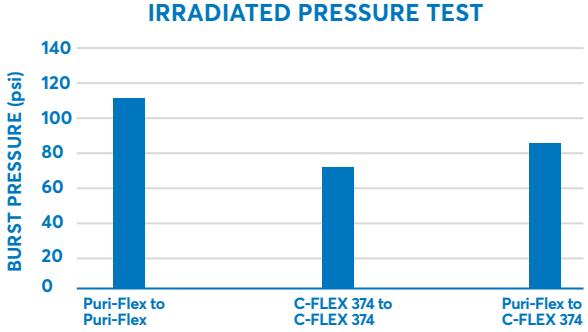




## Weld Burst and Tensile Testing Results Gamma Irradiated – Puri-flex Tubing™

**GAMMA IRRADIATED TUBE WELD TEST DATA (.125 I.D by .250 O.D Tubing) - Terumo Welder**

| Tube | Samples Tested | Average Tensile Failure (lbf) | Average Burst Pressure (psi) |
|---|---|---|---|
| Puri-Flex™to Puri-Flex™ | 10 | 20.88 | 109.22 |
| C-FLEX 374 to C-FLEX 374 | 10 | 16.85 | 77.98 |
| Puri-Flex™to C-FLEX 374 | 10 | 16.16 | 85.32 |




## Test Procedure

### Gamma Irradiation

All tubes were dosed between 25 kGy and 50 kGy.

### Welding Procedure

All tubes were welded using a Terumo SCD-IIB with standard settings. Samples for tensile and pressure testing were made to be 4" and 6" long respectively.

### Tensile Test Procedure

All samples were pulled in a MARK 10 test stand at 20 inches/minute until failure occurred. The failure mode and force at which a failure occurred was recorded.

### Pressure Test Procedure

All tubes were tested with a closed loop hydrostatic testing system on barbed fittings, secured with nylon Handy Clamps. Tubes are bled of all air to maintain consistent accurate results. Pressure is slowly increased until failure is observed. Failure mode and maximum pressure is recorded.

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