

FORM Q-115

**RECOMMENDED FORM FOR QUALIFYING THE DESIGN AND THE PROCEDURE SPECIFICATION USED IN
ADHESIVE BONDING OF PARTS OF FIBER-REINFORCED PLASTIC PRESSURE VESSELS (CLASS I)
(Revision D — 2023)**

Procedure Specification Number _____

A change in any of the essential variables denoted by an asterisk below requires a new Procedure Specification.

* Adhesive _____
(Manufacturer and Designation)

* Curing Agent _____
(Type, Manufacturer, and Designation)

* Preparation of Surfaces _____
(Machining, Grinding, Degreasing)

* Application of Adhesive _____
(Dip) (Brush)

* Cure _____
(Hours and Minutes) (Temperature)

Laminate Used in Test
(a) From Cylindrical Shell: Outside Diameter _____ Wall Thickness _____

Length of Lap[†] L _____ Fiber Content _____ Other Information _____

(b) From Fabricated Flat Laminate: Thickness _____ Fiber Content _____

Length of Lap[†] L _____ Other Information _____

[†]As required for tensile test per Figure Q-115.1.

REDUCED SECTION TENSION SPECIMEN OF BONDED JOINT DIMENSIONED SAME AS TYPE1 SPECIMEN OF ASTM D 638

U.S. Customary Units				SI Units			
Thickness of Wall, in.	Reduced Width, in.	Width Grip, in.	Overall Length, in.	Thickness of Wall, mm	Reduced Width, mm	Width Grip, mm	Overall Length, mm
1/4 or under	1/2	3/4	8.5	6 or less	13	19	216
Over 1/4 to 1/2, incl.	3/4	1 1/8	9.7	Over 6 to 13, incl.	19	28	246
Over 1/2 to 1, incl.	1	1 1/2	12	Over 13 to 25, incl.	25	38	305

CONDITION OF SPECIMEN

Specimen shall be wiped dry; no other conditioning is required.

RECORD OF SPECIMENS TESTED

Specimen No.	Thickness	Reduced Width	Length of Bond Overlap	Area of Bond	Total Load	Shear Stress
1						
2						
3						

FORM Q-115 (CONT'D)
(Revision D — 2023)

Qualification of Vessel With Bonded Joints

Vessel(s) Serial Number(s) _____

Design Report Number and Revision _____

Test Report Number _____

ASME Section X _____
Edition Year _____ Code Case Number _____

CERTIFICATION OF QUALIFICATION OF DESIGN AND FABRICATION PROCEDURE

We certify that the statements made in this Specification are correct.

Qualification Vessel by _____ at _____
(Fabricator) (Location)

Date _____ Signature _____

Our Certificate of Authorization No. _____ To use the Certificate Mark with RP Designator expires _____

CERTIFICATION OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and employed by _____ of _____ have witnessed the tests by which the design of the vessel(s) and the fabrication procedure have been qualified and state that, to the best of my knowledge and belief, these tests of the prototype vessel(s) and the fabrication procedure employed in constructing the vessel(s) satisfy the requirements of Section X of the ASME BOILER AND PRESSURE VESSEL CODE, Fiber-Reinforced Plastic Pressure Vessels.

By signing this certificate, neither the Inspector nor the Inspector's employer makes any warranty, expressed or implied, concerning the design or procedure covered by the Fabricator's Design Report. Furthermore, neither the Inspector nor Inspector's employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date _____ Commission _____
(National Board Authorized Inspector Number)

(Authorized Inspector's Signature)