

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 C — 2017)

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 _____
(Time) (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 Fig. Q-115.1.

REDUCED SECTION TENSION SPECIMEN OF BONDED JOINT DIMENSIONED SAME AS TYPE 1 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, lb	Shear Stress
1	_____	_____	_____	_____	_____	_____
2	_____	_____	_____	_____	_____	_____
3	_____	_____	_____	_____	_____	_____

FORM Q-115 (CONT'D)
(Revision C — 2017)

Qualification of Vessel With Bonded Joints

Vessel(s) Serial Number(s) _____

Design Report Number _____

Test Report Number _____

ASME Section X _____
[Edition and Addenda (if applicable) Date] (Code Case Number)

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

Date _____ Signed _____
(Fabricator)

By _____

Certificate of Authorization Number _____ Expires _____

**CERTIFICATION BY SHOP INSPECTOR
OF QUALIFICATION OF ADHESIVE-BONDING PROCEDURE**

Procedure Specification of _____ at _____

for _____ process of fabricating vessel(s) described in

_____ Design Specification and _____
(User) (Fabricator)

_____ Design Report Number _____

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 joint(s) and the adhesive-bonding procedure have been qualified and state that, to the best of my knowledge and belief, these tests of the prototype joint(s) and the adhesive-bonding 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 his employer makes any warranty, expressed or implied, concerning the design or procedure covered by the Fabricator's Design Report. Furthermore, neither the Inspector nor his 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)