

XXI-1100 INTRODUCTION**XXI-1110 SCOPE**

This Appendix provides qualification procedures for the adhesive attachment of nameplates. The use of adhesive systems for the attachment of nameplates is permitted only under the following conditions:

- (a)* The adhesive used is a pressure-sensitive acrylic adhesive that has been preapplied by the nameplate manufacturer to a nominal thickness of at least 0.005 in. (0.13 mm) and that is protected with a moisture stable liner
- (b)* The nameplate has a nominal thickness not less than 0.020 in. (0.5 mm)
- (c)* The item to which the nameplate is being attached has a Design Temperature within the range of -40°F to 300°F (-40°C to 150°C), inclusive
- (d)* The nameplate is applied to a clean, bare metal surface, and attention is given to removal of antiweld spatter compound that may contain silicone
- (e)* The nameplate application procedure is prequalified as outlined in XXI-1120
- (f)* The preapplied adhesive is used within 2 yr after adhesive application on the nameplate

ASME BPVC.III.A-2019

MANDATORY APPENDIX XXI ADHESIVE ATTACHMENT OF NAMEPLATES

Replace XXI-1110 with the proposal shown on page 1.

ARTICLE XXI-1000 REQUIREMENTS

XXI-1100 INTRODUCTION

XXI-1110 SCOPE

This Appendix provides minimum requirements for the use of adhesive systems for the attachment of nameplates, limited to

- (a) the use of pressure sensitive acrylic adhesives that have been preapplied by the nameplate manufacturer to a normal thickness of at least 0.005 in. (0.13 mm) and that are protected with a moisture stable liner
- (b) use on items with Design Temperatures within the range of -40°F to 300°F (-40°C to 150°C), inclusive
- (c) application to clean, bare metal surfaces, with removal of antiweld spatter compound which may contain silicone
- (d) nameplate nominal thickness not less than 0.020 in. (0.5 mm)
- (e) use of prequalified application procedures as outlined in this Article
- (f) use of the preapplied adhesive within an interval of 2 yr after adhesive application

(19) XXI-1120 NAMEPLATE APPLICATION PROCEDURE QUALIFICATION

(a) The Certificate Holder's Quality Assurance Manual shall require that written procedures, acceptable to the Authorized Inspection Agency, for the application of adhesive backed nameplates shall be prepared and qualified.

(b) The application procedure qualification shall include the following essential variable, using the adhesive and nameplate manufacturers' recommendations where applicable:

- (1) description of the pressure sensitive acrylic adhesive system employed, including generic composition

(2) the qualified temperature range [the cold box test temperature shall be -40°F (-40°C) for all applications]

(3) materials of nameplate and item when the mean coefficient of expansion at design temperature of one material is less than 85% of that for the other material

(4) finish of the nameplate and item surfaces to which the nameplate is to be attached

(5) the nominal thickness and modulus of elasticity at application temperature of the nameplate when nameplate preforming is employed. A change of more than 25% in the quantity $[(\text{nameplate nominal thickness})^2 \times \text{nameplate modulus of elasticity at application temperature}]$ will require requalification

(6) the qualified range of preformed nameplate and companion item contour combinations when preforming is employed

(7) cleaning requirements for the item prior to attachment of the nameplate

(8) application temperature range and application pressure technique

(9) application steps and safeguards

(c) Each procedure used for nameplate attachment by pressure sensitive acrylic adhesive systems shall be qualified for outdoor exposure in accordance with Standard UL-969-82, Marking and Labeling Systems, with the following additional requirements.

(1) Width of nameplate test strip shall not be less than 1 in. (25 mm).

(2) Nameplates shall have an average adhesion of not less than 8 lb/in. (1.4 N/mm) of width after all exposure conditions, including low temperature.

(d) Any change in (b) above shall require requalification.

(e) Each package of nameplates shall be identified with the adhesive application date.