

Advanced Materials

Bond 1308 Resin with Hardener 95 A6 Triple Blue or Hardener 95 A6 or Hardener 15 AX

Structural Adhesives

BOND 1308 Resin with Hardener 95A6 Triple Blue or Hardener 95A6 or Hardener 15AX

EPOXY FILTER-BONDING ADHESIVES

- Key properties:**
- High Strength
 - Good Stability

Description: Bond 1308 resin with Hardeners 95A6 Triple Blue, 95A6 or 15AX epoxy structural adhesive is a tough, two-component system that is well suited for a broad range of filter bonding applications. The high-strength epoxy adhesive features good stability in the presence of heat as well as flexural and compressive stresses. Bond 1308 resin/hardener systems bond well to metals and plastics. In addition to performing as adhesives, the products are suitable for use in potting and encapsulating applications.

Product data:

<u>Property</u>	<u>Bond 1308 Resin</u>	<u>95A6 Hardener Triple Blue</u>	<u>95A6 Hardener</u>	<u>15AX Hardener</u>
Color (visual)	Off-white	Blue	Hazy-Light yellow	Bronzish-red
Specific gravity	1.88	1.03	1.03	1.02
Viscosity at 77°F (cP)	85,000	870	555	45

Processing:

Pretreatment:

The strength and durability of a bonded joint is dependant on proper pretreatment of the surfaces to be bonded. At the very least, joint surfaces should be cleaned with a good degreasing agent such as acetone or other proprietary degreasing agents in order to remove all traces of oil, grease and dirt. Low grade alcohol, gasoline, or paint thinners should never be used. The strongest and most durable joints are obtained by either mechanically abrading or chemically etching ("pickling") the degreased surfaces. Abrading should be followed by a second degreasing treatment.

Mix ratio:	<u>Parts by Weight</u>	<u>Parts by Volume</u>
Bond 1308	100	100
95A6 Triple Blue	10	18
95A6	10	18
15AX	10	18

Application of adhesive:

The resin/hardener mix may be applied manually or robotically to the pretreated and dry joint surfaces. Huntsman's technical support group can assist the user in the selection of a suitable application method as well as suggest a variety of reputable companies that manufacture and service adhesive dispensing equipment. A layer of adhesive 0.002 to 0.004 in (0.05 to 0.10 mm) thick will normally impart the greatest lap shear strength to the joint. Huntsman stresses that proper adhesive joint design is also critical for a durable bond. The joint components should be assembled and secured in a fixed position as soon as the adhesive has been applied.

Equipment maintenance:

All tools should be cleaned with hot water and soap before adhesives residues have had time to cure. The removal of cured residues is a difficult and time-consuming operation. If solvents such as acetone or MEK are used for cleaning, operators should take the appropriate precautions and, in addition, avoid skin and eye

Typical cured properties:

Unless otherwise stated, the figures given below were all determined by testing standard specimens made by lap-jointing 4.5 x 1 x 0.063 in (114 x 25 x 1.6 mm) strips of aluminum alloy. The joint area was 0.5 x 1 in (12.5 x 25 mm) in each case. The figures were determined with typical production batches using standard testing methods. They are provided solely as technical information and do not constitute a product specification.

Key Properties: Cured for 7 days at 77°F(25°C) and tested at 77°F (25°C); Pretreatment - Sand blasting and Acetone Wiped

<u>Test</u>	System 1 Bond1308/ 95A6 Triple Blue	System 2 Bond1308/ 95A6	System 3 Bond 1308/ 15AX
Gel time, 100 g @ 77°F	30	43	> 6 hrs.
Hardness, Shore D	92	92	91
Mixed Viscosity	28,000	15,400	13,000
Lap Shear Strength, psi (MPa)			
at 77°F (25°C)	2,642	1,958	1,892
at 180°F (82°C)	713	576	795
at -40°F (-40°C)	1,976	1,934	997

Typical cured properties:

(Not for specification purposes) (Systems 1 and 2 tested after curing for 24 hours at 140°F/ 60°C; System 3 tested after curing for 20 minutes at 302°F/150°C).

Test	System 1 Bond 1308/ 95A6 Triple Blue	System 2 Bond 1308/ 95A6	System 3 Bond 1308/ 15AX
Lap Shear Strength, psi (MPa)			
at 77°F	2,651	2,516	2,684
at 180°F	732	800	2,471
at -40°F	2,567	2,494	2,624

Storage:

Bond 1308 Resin, 95A6 Triple Blue, 95A6, and 15AX Hardeners are structural adhesives that may be stored for up to 12 months room temperature provided the components are stored in sealed containers. The expiry date is indicated on the label.

Handling precautions:**Caution**

To protect against any potential health risks presented by our products, the use of proper personal protective equipment (PPE) is recommended. Eye and skin protection is normally advised. Respiratory protection may be needed if mechanical ventilation is not available or is insufficient to remove vapors. For detailed PPE recommendations and exposure control options consult the product MSDS or a Huntsman EHS representative.

Huntsman Advanced Materials warrants only that its products meet the specifications agreed with the user. Typical properties, where stated, are to be considered as representative of current production and should not be treated as specifications.

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