



# Technical Data Sheet

## 3M™ Scotch-Weld™ Urethane Adhesive 3549 B/A

### Product Description

- 3M™Scotch-Weld™ Urethane Adhesives 3535 B/A is a two-component, polyurethane adhesives which cure at room temperature or with heat to form tough, impact-resistant structural bonds. Their adhesion properties are identical and they vary only in work life, cure time and color. They provide excellent adhesion to many primed or painted metal and plastic substrates and are designed to develop sag resistance approximately 30 seconds after mixing.
- 3M™Scotch-Weld™ Structural Adhesive Primer EC-3901 is suggested for use on metal surfaces to achieve maximum resistance to water, humidity and salt spray. (See Primer Information in Directions for Use section)

### Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

### Typical Uncured Physical Properties

Property	Values	Additional Information
Color	Brown	View

Notes: Colors may vary from nearly white to yellow/amber. Adhesive performance is not affected by color variation.


Base Color	Off-White	
Accelerator Color	Brown	
Base Density	10.3 lb/gal	
Accelerator Density	11.2 lb/gal	
Base Viscosity	10,000-40,000 cP	View
Temp C: 23C Temp F: 72F Notes: Brookfield RVF #6 sp. @ 10 rpm		
Accelerator Viscosity	15,000-40,000 cP	View

Temp C: 23C  
Temp F: 72F



Notes: Brookfield RVF #5 sp. @ 10 rpm

Base Resin	Polyol
Accelerator Resin	Isocyanate
Mix Ratio by Volume (B:A)	100:100
Mix Ratio by Weight (B:A)	100:109


### Typical Physical Properties

Property	Values	Additional Information
Color	Brown	View 
Test Name: Cured		

### Typical Mixed Physical Properties

Property	Values	Additional Information
Worklife, 100g mixed	45 to 70 min	View 
Temp C: 23C Temp F: 73F		
Time to Full Cure	7 day	View 
Temp C: 23C Temp F: 73F		

### Typical Cured Characteristics


Property	Values	Additional Information
Tensile Strength	3000 lb/in <sup>2</sup>	View 
Test Method: ASTM D738		
Test Name: At Break Dwell/Cure Time: 60.0 Dwell Time Units: min Temp C: 121C Temp F: 250F Environmental Condition: +30 min @ 285F(141C)		
Notes: tested at 2 inches/min.		
Elongation	96 %	View 

Test Method: ASTM D738

Environmental Condition: 60 min at 250°F(121°C), 30 min at 285°F(141°C)

Notes: tested at 2 inches/min.

## Typical Performance Characteristics

Property	Values	Additional Information
Overlap Shear Strength 7day Aluminum	1000 lb/in <sup>2</sup>	<a href="#">View</a> 

Test Method: ASTM D1002

Test Name: Overlap Shear Strength

Dwell/Cure Time: 7.0

Dwell Time Units: day

Temp C: 23C


Temp F: 73F

Environmental Condition: 50%RH

Substrate: Aluminum

Surface Preparation: Solvent Wipe

Notes: 1in wide 1/2in overlap specimens. 2 panels of 0.05-0.064in x 4in x 7in 2024T-3 clad aluminum bonded and cut to 1in wide samples after 24hr. Jaw separation 0.1 in/min, 0.005-0.008in bondline. Cohesive (CF), Adhesive (AF), and Substrate (SF) Failure

Overlap Shear Strength	700 lb/in <sup>2</sup>	<a href="#">View</a> 
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Test Method: ASTM D1002

Dwell/Cure Time: 7.0

Dwell Time Units: day

Temp C: 23C

Temp F: 73F

Environmental Condition: 50%RH

Substrate: Steel

Surface Preparation: Solvent Wipe

Notes: All aluminum data were developed on .063-inch thick 2024 T-3 clad aluminum and all steel data on .035-inch cold rolled steel. Test specimens were 1/2-inch overlap, 1-inch wide, pulled at a testing rate of .1-inch/min.

## Storage and Shelf Life

Store product at 60-80°F (16-27°C) for maximum storage life. Higher temperatures reduce normal storage life. Lower temperatures cause increased viscosity of a temporary nature. Rotate stock on a “first in-first out” basis.

These products have a shelf life of 18 months from date of manufacture when properly stored in their unopened containers.

## Bottom Matter

3M

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## Automotive Disclaimer

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## Handling/Application Information

### Application Equipment

These products may be applied with spatula, trowel, or flow equipment. Appropriate two-part metering and mixing equipment is also commercially available.

### Directions for Use

1. Surfaces to be bonded must be dry and free from rust, oil, grease and wax. Surfaces can be cleaned with an abrasive such as 3MTM Coated Abrasives (240 grit) followed by wiping with a solvent such as Scotch-Grip™ Solvent No. 3.\*

### 2. Primer Information:

3M™Scotch-Weld™ Structural Adhesive Primer EC-3901 may be applied by spray or brush. Air dry cycles for periods as short as 1/2 hour have been used successfully with the force dry cycle. Humidity contributes greatly to satisfactory use of this primer. Relative humidity of 25% or lower may cause difficulties and should be thoroughly evaluated in the customers' application. The primed surface, after cooling to ambient temperatures, is ready for adhesive bonding. The primed surface should be protected from contamination introduced by dust, fingerprints, oil, etc.

See Data Sheet for Scotch-Weld Structural Adhesive Primer EC-3901 for directions for use.

\*Note: When using solvents, extinguish all ignition sources and follow the manufacturer's precautions and directions for use when handling such materials.

## References

Property	Values
3m.com Product Page	<a href="https://www.3m.com/3M/en_US/p/d/b40066531/">https://www.3m.com/3M/en_US/p/d/b40066531/</a>
Safety Data Sheet SDS	<a href="https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=3549 B/A">https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=3549 B/A</a>

## Family Group

Link Tags:

- [3535 B/A](#)
- [3549 B/A](#)

Products	Color
3535 B/A	Off-White
3549 B/A	Brown

## ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

## Precautionary Information

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.

## Information

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