

# Technical Data Sheet

## 3M™ Marine Adhesive/Sealant Fast Cure 4000 UV

### Product Description

3M™ Marine Adhesive/Sealant 4000 UV is a one-part adhesive sealant that cures to form a firm, rubbery waterproof seal. Its flexibility allows for the dissipation of stress caused by shock, vibration, swelling or shrinking. Designed for marine applications above and below the waterline. Its superior UV resistance properties makes this an ideal cosmetic adhesive sealant.



### Product Features

- Superior UV resistance.
- Exceptional sealing properties.
- < 1% VOC's
- Low odor.
- Non-shrinking.
- Non-sagging.
- Non-corrosive.
- Non-cracking.
- Caulkable at low temperatures (>40°F [4°C]).
- Fast curing.
- Paintable (test for suitability).

### 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 Physical Properties

Property	Values	Additional Information
Color	White Black	
Approximate Coverage	36.6 lineal m	<a href="#">View</a> 
Notes: 10.5 oz. [310 mm Cartridge]; 1/8 in (3 mm) bead		
Approximate Coverage	120 lineal ft	<a href="#">View</a> 
Notes: 10.5 oz. [310 mm Cartridge]; 1/8 in (3 mm) bead		
Product Construction	10 fl. oz. cartridge (295 ml) 3 fl. oz. tube (90 ml) 400 ml Flex Pack (13.5 fl. oz.)	






### Typical Uncured Physical Properties

Property	Values	Additional Information
Density	11.7 lb/gal	
Base	Polyether	
Consistency	Medium Paste	


### Typical Cured Characteristics

Property	Values	Additional Information
Shore A Hardness	39	View 
Test Method: ASTM C661		

### Typical Performance Characteristics


Property	Values	Additional Information
Tensile Strength	28.1 kg/cm <sup>2</sup>	View 
Notes: A 1/8 inch (0.3175 cm) dumbbell specimen with a 1/8 inch (0.3175 cm) square cross section was tested at 2.0 inches/minute (5.08 cm/minute).		
Tensile Strength	>400 lb/in <sup>2</sup>	View 
Notes: A 1/8 inch (0.3175 cm) dumbbell specimen with a 1/8 inch (0.3175 cm) square cross section was tested at 2.0 inches/minute (5.08 cm/minute).		
Elongation	>300 %	View 
Notes: A 1/8 inch (0.3175 cm) dumbbell specimen with a 1/8 inch (0.3175 cm) square cross section was tested at 2.0 inches/minute (5.08 cm/minute).		
Long Term Temp C	90 °C	View 
Test Condition: Long Term (day, weeks)		
Minimum Long Term Temperature Resistance	-40 °C	
Long Term Temp F	190 °F	View 
Test Condition: Long Term (day, weeks)		
Minimum Long Term Temperature Resistance	-40 °F	
Application Temperature	4 to 38 °C	

Application Temperature 40 to 100 °F

Overlap Shear Strength 13.3 kg/cm<sup>2</sup> View 


Temp C: 23C  
Temp F: 72F  
Substrate: Oak  
Failure Mode: 85/15 (Cohesive/Adhesive)

Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Overlap Shear Strength 190 lb/in<sup>2</sup> View 


Temp C: 23C  
Temp F: 72F  
Substrate: Oak  
Failure Mode: 85/15 (Cohesive/Adhesive)

Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Overlap Shear Strength 14.8 kg/cm<sup>2</sup> View 


Temp C: 23C  
Temp F: 72F  
Substrate: Maple  
Failure Mode: 80/20 (Cohesive/Adhesive)

Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Overlap Shear Strength 210 lb/in<sup>2</sup> View 


Temp C: 23C  
Temp F: 72F  
Substrate: Maple  
Failure Mode: 80/20 (Cohesive/Adhesive)

Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Overlap Shear Strength 13.3 kg/cm<sup>2</sup> View 

Temp C: 23C  
Temp F: 72F  
Substrate: Fir  
Failure Mode: 70/30 (Cohesive/Adhesive)

Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Overlap Shear Strength 190 lb/in<sup>2</sup> View 

Temp C: 23C  
Temp F: 72F  
Substrate: Fir  
Failure Mode: 70/30 (Cohesive/Adhesive)


Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Overlap Shear Strength 11.2 kg/cm<sup>2</sup> View 

Temp C: 23C  
Temp F: 72F

Substrate: Mahogany  
Failure Mode: 60/40 (Cohesive/Adhesive)

Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Overlap Shear Strength 160 lb/in<sup>2</sup> View 

Temp C: 23C  
Temp F: 72F  
Substrate: Mahogany  
Failure Mode: 60/40 (Cohesive/Adhesive)

Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Overlap Shear Strength 15.8 kg/cm<sup>2</sup> View 


Temp C: 23C  
Temp F: 72F  
Substrate: Aluminum  
Failure Mode: 80/20 Cohesive/Adhesive

Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Overlap Shear Strength 225 lb/in<sup>2</sup> View 


Temp C: 23C  
Temp F: 72F  
Substrate: Aluminum  
Failure Mode: 80/20 Cohesive/Adhesive

Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Overlap Shear Strength 14.0 kg/cm<sup>2</sup> View 


Temp C: 23C  
Temp F: 72F  
Substrate: Fiberglass  
Failure Mode: Cohesive

Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Overlap Shear Strength 200 lb/in<sup>2</sup> View 


Temp C: 23C  
Temp F: 72F  
Substrate: Fiberglass  
Failure Mode: Cohesive

Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Overlap Shear Strength 17.6 kg/cm<sup>2</sup> View 


Temp C: 23C  
Temp F: 72F  
Substrate: Gelcoat  
Failure Mode: Cohesive


Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.


Overlap Shear Strength 250 lb/in<sup>2</sup> View 


Temp C: 23C  
Temp F: 72F  
Substrate: Gelcoat  
Failure Mode: Cohesive


Notes: 1in overlap specimens 0.093in thick. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.


180° Peel Adhesion	60 oz/in	<a href="#">View</a> 
Substrate: Gelcoat Failure Mode: Cohesive  Notes: One inch (2.54 cm) wide specimens on canvas. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. This is the desired mode. Adhesive Failure – Adhesive/Sealant releases from substrate.		


180° Peel Adhesion	57 oz/in	<a href="#">View</a> 
Substrate: Fiberglass Failure Mode: Cohesive  Notes: One inch (2.54 cm) wide specimens on canvas. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. This is the desired mode. Adhesive Failure – Adhesive/Sealant releases from substrate.		

180° Peel Adhesion	70 oz/in	<a href="#">View</a> 
Substrate: Aluminum Failure Mode: Cohesive  Notes: One inch (2.54 cm) wide specimens on canvas. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. This is the desired mode. Adhesive Failure – Adhesive/Sealant releases from substrate.		

180° Peel Adhesion	50 oz/in	<a href="#">View</a> 
Substrate: Mahogany Failure Mode: Cohesive  Notes: One inch (2.54 cm) wide specimens on canvas. Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. This is the desired mode. Adhesive Failure – Adhesive/Sealant releases from substrate.		

Temperature Resistance	17.6 kg/cm <sup>2</sup>	<a href="#">View</a> 
Substrate: Fir Failure Mode: 55/45 (Cohesive/Adhesive)  Notes: 1in overlap specimens 0.093in thick. Aged 500 hours @ 190°F (90°C). Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.		

Temperature Resistance	250 lb/in <sup>2</sup>	<a href="#">View</a> 
Substrate: Fir Failure Mode: 55/45 (Cohesive/Adhesive)  Notes: 1in overlap specimens 0.093in thick. Aged 500 hours @ 190°F (90°C). Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.		


Temperature Resistance	28.1 kg/cm <sup>2</sup>	<a href="#">View</a> 
Substrate: Aluminum Failure Mode: 95/5 (Cohesive/Adhesive)  Notes: 1in overlap specimens 0.093in thick. Aged 500 hours @ 190°F (90°C). Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate. Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.		

Temperature Resistance	400 lb/in <sup>2</sup>	<a href="#">View</a> 
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Substrate: Aluminum  
Failure Mode: 95/5 (Cohesive/Adhesive)

Notes: 1in overlap specimens 0.093in thick. Aged 500 hours @ 190°F (90°C). Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate.  
Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Temperature Resistance 19.3 kg/cm<sup>2</sup> View 

Substrate: Gelcoat  
Failure Mode: Cohesive

Notes: 1in overlap specimens 0.093in thick. Aged 500 hours @ 190°F (90°C). Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate.  
Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Temperature Resistance 275 lb/in<sup>2</sup> View 

Substrate: Gelcoat  
Failure Mode: Cohesive

Notes: 1in overlap specimens 0.093in thick. Aged 500 hours @ 190°F (90°C). Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate.  
Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Temperature Resistance 22.8 kg/cm<sup>2</sup> View 

Substrate: Fiberglass  
Failure Mode: 80/20 (Cohesive/Adhesive)

Notes: 1in overlap specimens 0.093in thick. Aged 500 hours @ 190°F (90°C). Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate.  
Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Temperature Resistance 325 lb/in<sup>2</sup> View 

Substrate: Fiberglass  
Failure Mode: 80/20 (Cohesive/Adhesive)

Notes: 1in overlap specimens 0.093in thick. Aged 500 hours @ 190°F (90°C). Cohesive – Adhesive/Sealant fails before adhesive/sealant releases from substrate.  
Desired failure mode. Adhesive Failure – Adhesive/Sealant releases from substrate.

Environmental Resistance

## Product Uses

3M Marine Adhesive Sealant 4000 UV may be used in typical bedding and sealing applications including fiberglass hull, wood to fiberglass, porthole frames, deck fittings, moldings, thru hull and deck hardware.

## Storage and Shelf Life

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

When stored at the recommended conditions in the original, unopened container this product has a shelf life of 15 months from date of manufacture for cartridges and sausage packs. When stored at recommended conditions, the shelf life is 15 months from date of manufacture for 3 ounce tubes.

## Automotive Disclaimer

Automotive Applications: This product is an industrial product and has not been designed or tested for use in certain automotive applications, including, but not limited to, automotive electric powertrain battery or high voltage applications. This product does not fully adhere to typical automotive design or quality system requirements, such as IATF 16949 or VDA 6.3. This product may not be manufactured in an IATF certified facility and may not meet a Ppk of 1.33 for all properties. The product may not undergo an automotive production part approval process (PPAP). Customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer’s automotive application and for conducting incoming inspections before use of the product. Failure to do so may result in injury, death, and/or harm to property. No written or verbal statement, report, data or recommendation by 3M related to automotive use of the product shall have any force or effect unless in an agreement signed by the Technical Director of 3M’s Automotive Division. Customer assumes all responsibility and risk if customer chooses to use this product in an automotive electric powertrain battery or high voltage application, and 3M will not be liable for any loss or damage arising from or related to the 3M product or customer’s use of the product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity or recall costs), regardless of the legal or

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## Bottom Matter

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## Trademarks

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3M is a trademark of 3M Company.

## Handling/Application Information

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### Application Examples

Typical Marine Adhesive Sealant Applications:

Portlights

Hatches

Thru-hulls

Rails

Metal Hardware

Moldings

Wood

Teak

Fiberglass

Gelcoat

Porthole Frames

### Directions for Use

#### 1. Surface Preparation

Surface should be clean, dry and free of contaminants. New surfaces should be solvent wiped with 3M™ General Purpose Adhesive Cleaner 08984\*, or equivalent. Other than new surfaces should be sanded with a fine grade abrasive to enhance bond strength.

#### 2. Sealing and bedding application

Apply 3M™ Marine Adhesive/Sealant 4000 UV to the seam or part to be bonded. Position parts. Tool and squeeze out material to desired appearance. Remove excess with 3M general purpose adhesive cleaner 08984.\*

#### 3. Cleanup

For cleaning 3M marine adhesive/sealant 4000 UV before it is cured, use a dry cloth to remove the majority, followed by a cloth damp with 3M general purpose adhesive cleaner, toluene, acetone, or other good cleaning solvent.\*

Cured 3M marine adhesive/sealant 4000 UV can be removed mechanically with a knife, razor blade, piano wire or by sanding.

\*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer's precautions and directions for use.

Cure:

\*Higher temperature and humidity conditions will accelerate the tack free time and cure. Please plan accordingly.

## References

Property	Values
3m.com Product Page	<a href="https://www.3m.com/3M/en_US/p/d/b40066991/">https://www.3m.com/3M/en_US/p/d/b40066991/</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=4000 UV">https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=4000 UV</a>

## Family Group

Link Tags:

- 4000 UV

Products	Color	Long Term Temp C	Minimum Long Term Temperature Resistance	Long Term Temp F
4000 UV	White	90 °C	-40 °C	190 °F

## 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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