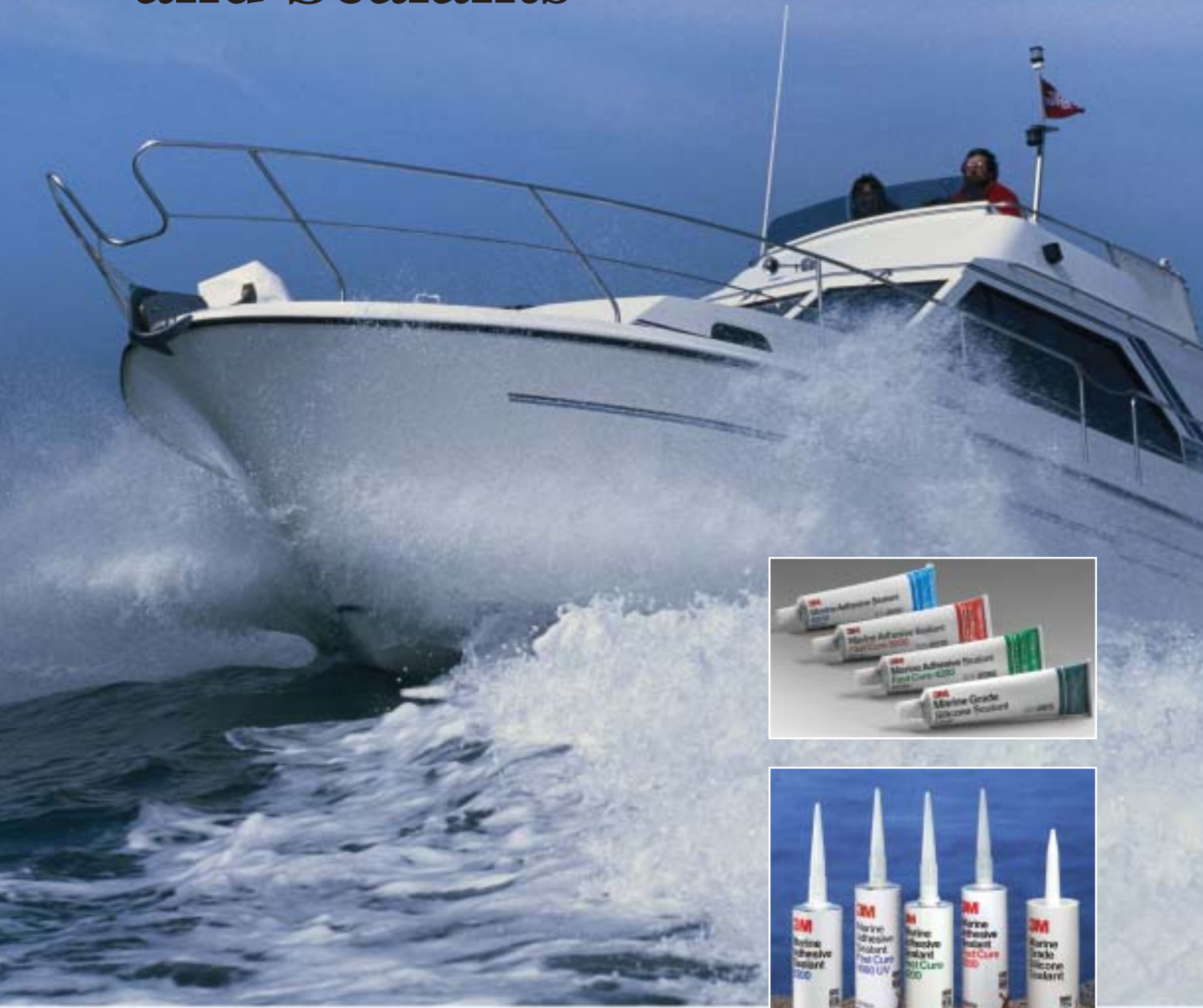




Marine Adhesives and Sealants



For Demanding Marine Environments

Providing secure bonds, in the water or out.






Almost no environment is harsher than the beating sun and pounding waves of the open water. So don't trust your watercraft to just any sealant. 3M's full line of marine adhesives and sealants are time-tested to withstand all the hardships nature gives out. Whether your application is above the water or below, 3M's sure to have the right product for the job.



BONDING
Applications
• Toe Rails
• Hull to Deck
• Deck Fittings
• Trim
Substrates
• Gelcoat
• FRP (Fiber Reinforced Plastic)
• Wood
• Primed Metal

SEALING
Applications
• Thru Hulls
• Hatches
• Rub Rails
• Hinges
• Door Flanges
• Trim
• Porthole Frames
• Trunk Joints
• Struts & Planking
• Stern Joints
• Slip Rails
• Electrical Assemblies
• Port Lights
Substrates
• Gelcoat
• FRP (Fiber Reinforced Plastic)
• Wood
• Metal
• Most Plastics
• Glass

P R O D U C T S

PROPERTIES					
DESCRIPTION	 <p>Extremely Strong Non-Shrinking Permanent Bond</p>	 <p>Flexible Non-Shrinking General Purpose</p>	 <p>Extremely Strong Non-Shrinking Permanent Bond</p>	 <p>Flexible UV-Resistant Weatherproof</p>	 <p>Flexible Non-Sagging Mildew Resistant</p>
APPLICATION TEMPERATURE	40°–100°F (5°–38°C)	40°–100°F (5°–38°C)	40°–100°F (5°–38°C)	40°–100°F (5°–38°C)	40°–100°F (5°–38°C)
CONSISTENCY	Medium Paste	Medium Paste	Medium Paste	Medium Paste	Non-Sagging Paste
COLOR	White Black Mahogany Tan	White Black	White	White	White Clear
TACK-FREE*	48 Hours	1–2 Hours	1–2 Hours	<2 Hours	20 Minutes
CURE***	7–14 Days	24–48 Hours	24–48 Hours	24–48 Hours	24–48 Hours
TENSILE STRENGTH	700psi	300psi	600psi	300psi	220psi
% ELONGATION BEFORE BREAK	1350%	900%	925%	800%	350%
SANDABLE	Yes	Yes	Yes	Yes	No
DISCOLORATION RESISTANCE	Better	Good	Better	Excellent	Excellent
GELCOAT	H	G	H	G	B
FIBERGLASS	H	G	H	G	B
WOOD	H	G	H	G	B
METAL	H**	G**	H**	H	B
RUBBER	G	G	G	B	B
PLASTICS	G/B	G/B	G/B	B	B

Protect from direct sunlight and rain until cured. H=High Strength Bonding G=General Bonding B=Bedding Sealing
*at 75°F/50% RH **Primer recommended ***at 1/4" depth

APPLICATIONS QUESTIONS

- Am I making a structural, general, bedding or sealing bond?
- Will I ever have to disassemble?
- Have I cleaned and/or scuffed the surfaces to be bonded/sealed?
- How soon do I need the adhesive sealant to skin over? cure?
- Do I need to apply a primer?
- How much do I need? (Hint: a 1/10th gallon container provides 30 linear feet @ 1/4" bead, 120 feet @ 1/8" bead)



3M™ Marine Adhesive Sealant Fast Cure 4000 UV

This one-part sealant 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 make this an ideal cosmetic sealant.

FLEX PACK-400ML SIZE

Part Number	Color	Units/Case
051135-06586	White	12

CARTRIDGES-1/10 GALLON SIZE

Part Number	Color	Units/Case
051135-06580	White	12

TUBES-CARDED

Part Number	Color	Units/Case
051135-05280	White	6

3M™ Marine Adhesive Sealant Fast Cure 4200



A one-part, general all-purpose polyurethane that chemically reacts with moisture to deliver flexible bonds with good adhesion to wood, fiberglass, gelcoat, plastics and metals. Forms watertight, weather-resistant seals on

joints and boat hardware above or below the waterline. This product is approximately half the strength of 3M™ Marine Adhesive Sealant 5200, which allows for disassembly of parts.



TUBES-CARDED

Part Number	Color	Size	Units/Case
051135-05260	White	3 oz.	12

CARTRIDGES-1/10 GALLON SIZE

Part Number	Color	Units/Case
051135-06560	White	12
051135-06564	Black	12

3M™ Marine Adhesive Sealant 5200



This high-performance polyurethane adhesive sealant becomes tack-free in 24-48 hours, and completely cures in 5-7 days with no shrinking. The seal is extremely strong, retaining its strength above or below the waterline. Stays flexible—allows for structural movement. Stress caused by shock, vibration, swelling or shrinking is effectively absorbed. Has excellent resistance to weathering and salt water. Check the bonding and sealing jobs this product can handle for you:

3M™ Marine Adhesive Sealant Fast Cure 5200



This fast cure version of 3M™ Marine Adhesive Sealant 5200 becomes tack-free in one hour and completely cures within 24 hours. Delivering strong, flexible seals, 3M Marine Adhesive Fast Cure 5200 is ideal for applications where a fast,

TUBES-CARDED			
Part Number	Color	Size	Units/Case
051135-05220	White	3 oz.	12

CARTRIDGES-1/10 GALLON SIZE		
Part Number	Color	Units/Case
051135-06520	White	12

long-term seal is needed above or below the waterline, such as hull to deck seams, wood to fiberglass, marine hardware, and hull and stern joints. Remains flexible, allowing structural movement, and has excellent resistance to weathering and the marine environment. Available in tubes and cartridges.

3M™ Marine Grade Silicone Sealant

A mildew resistant non-sagging, moisture-curing silicone rubber sealant. Remains flexible with excellent resistance to the marine environment. Adheres to bare and painted metal, fiberglass, glass, non-oily woods and many plastics and abraded rubbers.

Ideal for head sealing applications. Also excellent gasket adhesive and formed-in-place gasket material.



TUBES-CARDED			
Part Number	Color	Size	Units/Case
051135-08016	Clear	1 oz.	12
051135-08017	White	3 oz.	12
051135-08019	Clear	3 oz.	12

CARTRIDGES-1/10 GALLON SIZE		
Part Number	Color	Units/Case
051135-08027	White	12
051135-08028	Black	12
051135-08029	Clear	12

fiberglass deck to fiberglass hull, wood to fiberglass, portholes and deck fittings, under mouldings, hull seams above or below waterline, center board trunk joints, between struts and planking, stern joints, deck housing, etc. Easy to apply with manual caulking gun. Remains workable with trowel or spatula up to four hours after application. Won't sag or flow in vertical or horizontal seams. Available in tubes, cartridges and 5-gallon pails.

TUBES-CARDED			
Part Number	Color	Size	Units/Case
051135-05207	Black	1 oz.	12
051135-05206	White	1 oz.	12
051135-05203	White	3 oz.	12
051135-05205	Black	3 oz.	12

CARTRIDGES-1/10 GALLON SIZE		
Part Number	Color	Units/Case
051135-06500	White	12
051135-06501	Tan	12
051135-06502	Mahogany	12
051135-06504	Black	12

PAILS-5 GALLON			
Part Number	Color	Size	Units/Case
021200-21463	White	5 gallon	1
021200-21450	Tan	5 gallon	1
021200-21456	Mahogany	5 gallon	1



For uncured adhesive sealant, use 3M™ General Purpose Adhesive Cleaner PN 08984 or 3M™ Citrus Cleaner PN 08889 or PN 76394.

Coverage Charts for Adhesive Sealant Products

Given the desired diameter of a bead or the dimensions of a seam, the coverage obtained from a cartridge or flex pack can be looked up in the following charts. Note that the values are calculated for "no waste." The actual coverage will be based on application technique and overfill.

Bead Diameter (inch)		Length of Bead (lineal feet)	
fractional	decimal	for 10 fl.oz.	for 400 ml
1/8	0.1250	126.2	165.7
3/16	0.1875	56.1	73.7
1/4	0.2500	31.6	41.4
5/16	0.3125	20.2	26.5
3/8	0.3750	14.0	18.4
7/16	0.4375	10.3	13.5
1/2	0.5000	7.9	10.4

Lineal Feet of Seam

Seam Depth (inch)	Seam Width (inch)			
	1/8	1/4	3/8	1/2
1/8	96.2 (130.1)	48.1 (65.1)	32.1 (43.4)	24.1 (32.5)
3/16	64.2 (86.8)	32.1 (43.4)	21.4 (28.9)	16.0 (21.7)
1/4	48.1 (65.1)	24.1 (32.5)	16.0 (21.7)	12.0 (16.3)
5/16	38.5 (52.1)	19.2 (26.0)	12.8 (17.4)	9.6 (13.0)
3/8	32.1 (43.4)	16.0 (21.7)	10.7 (14.5)	8.0 (10.8)
7/16	27.5 (37.5)	13.8 (18.6)	9.2 (12.4)	6.9 (9.3)
1/2	24.1 (32.5)	12.0 (16.3)	8.0 (10.8)	6.0 (8.1)

Values given for 10 fl. oz. cartridge and 400 ml (in parentheses).

Lineal Meters of Seam

Seam Depth (mm)	Seam Width (millimeters)				
	4	6	8	10	12
4	18.4 (25.0)	12.3 (16.7)	9.2 (12.5)	7.4 (10.0)	6.1 (8.3)
5	14.8 (20.0)	9.8 (16.3)	7.4 (10.0)	5.9 (8.0)	4.9 (6.7)
6	12.3 (16.7)	8.2 (11.1)	6.1 (8.3)	4.9 (6.7)	4.1 (5.6)
7	10.5 (14.3)	7.0 (9.5)	5.3 (7.1)	4.2 (5.7)	3.5 (4.8)
8	9.2 (12.5)	6.1 (8.3)	4.6 (6.3)	3.7 (5.0)	3.1 (4.2)
10	7.4 (10.0)	4.9 (6.7)	3.7 (5.0)	3.0 (4.0)	2.5 (3.3)
12	6.1 (8.3)	4.1 (5.6)	3.1 (4.2)	1.5 (3.3)	2.0 (2.8)

Area Coverage

Should it be necessary to cover an area with the adhesive sealant, the material should be dispensed from the container and spread with a trowel. Most trowels for spreading adhesives will have a notched edge to facilitate control of the thickness being applied. When the notch depth is known or can be measured the coverage area can be determined from the following tables. Should it be necessary to apply a solid layer of a specific thickness, take the value given in the following table and divide the area by two.

Square Foot Coverage

Package Size	Notch Depth (inch)			
	1/16	1/8	3/16	1/4
3 oz. tube	1.2	0.6	0.4	0.3
10 oz. cartridge	4.0	2.0	1.3	1.0
400 ml flex pack	5.4	2.7	1.8	1.4
5 gallon pail	257	128	86	64

Square Meter Coverage

Package Size	Notch Depth (centimeters)			
	0.30	0.40	0.50	0.60
3 oz. tube	0.06	0.04	0.04	0.03
10 oz. cartridge	0.20	0.15	0.12	0.10
400 ml flex pack	0.27	0.20	0.16	0.13
5 gallon pail	12.62	9.46	7.57	6.31



Minimum 10%
Post-Consumer Fiber