



Improve Aesthetics, Quality & Performance

WITH INNOVATIVE MARINE ADHESIVES





Bostik, Your Marine Adhesive & Sealant Provider

Bostik, an Arkema company, is a global adhesive and sealant manufacturer specializing in exterior and interior marine assembly applications. With your goals in mind, our products are specifically formulated to make it easy for you to:



**IMPROVE
AESTHETICS**



**INCREASE
QUALITY**



**ENHANCE
PERFORMANCE**

Additionally, we continue to expand upon our portfolio and bring proven solutions worldwide directly to you, so that you have the type of product you need when and where you need it. Offering innovative solutions that meet evolving trends, such as the shift toward synthetic teak bonding, we work with you to help you easily address tomorrow's needs today.

Marine: Exterior Application Technology

When manufacturing a marine vessel, your chosen materials play an important role your ability to meet exterior application specifications. Here are certain qualities your adhesive should possess in key applications.



DECK BONDING

- Long working time
- High UV and chemical resistance
- Easy tooling

DECK TO HULL

- High strength and elongation
- Long work time
- Low exotherm

WINDOW GLAZING

- High green strength
- Primerless application
- Good UV resistance and aging properties

BACKBEDDING

- High strength
- Long-term durability
- Substrate compatibility

DECK SEALING

- High teak oil resistance
- Low shrinkage
- Salt water resistance

GENERAL BONDING AND SEALING

- Paintability
- Easy tooling
- Low shrinkage

Featured Products by Application

Once you consider your application's adhesive technology needs, it's important to trial specific products. At Bostik, our technical experts will work with you every step along the way to help ensure that the right one is chosen that meets your needs. Here are suggested products that can help.

GENERAL BONDING & SEALING

- 940A
- 940A FS
- STR220A
- STR350A

FEATURED GENERAL BONDING & SEALING PRODUCTS: 940A & 940A FS

Our SMP-based products are **designed for above or below-the-waterline marine applications** where permanent elastic bonding between surfaces is required, such as seam sealing and hatch bonding. One component, these flexible, hybrid polymers possess:

- **Outstanding UV as well as high and low temperature resistance** to increase longevity
- **Solvent and isocyanate free formulation** to improve worker safety
- **Excellent sandable and paintable capabilities** to enhance aesthetics

DECK BONDING & SEALING

- 920FS
- 920
- MSR DC Advanced
- MSR CA SSKF

FEATURED DECK BONDING & SEALING PRODUCT: MSR CA SSKF

Based on SMP technology, our MSR CA SSKF one-component, permanently elastic adhesive meets International Maritime Organization Fire Test Procedures for surface flammability and resolution A.653(16) and offers:

- **Extended open time** to improve workability
- **Multi-substrate adhesion** to increase versatility
- **High bond strength and sealing capabilities** to enhance performance

WINDOW GLAZING & BACKBEDDING

- 70-08A
- STR350A

FEATURED WINDOW GLAZING & BACKBEDDING PRODUCT: 70-08A

Our 70-08A product is based on SMP technology and is for applications where parts have to be transported immediately or shortly after installation, offering:

- **High green strength** to increase production efficiencies
- **Excellent UV and aging properties** to enhance aesthetics
- **Permanent elasticity between -40°F and 248°F** to improve performance

DECK TO HULL BONDING & SEALING

- FIT30 MMA
- Pliogrip 1010C

FEATURED DECK TO HULL BONDING & SEALING PRODUCT: FIT30 120

Based on methyl methacrylate technology and excellent for bonding dissimilar substrates, such as metals, plastics and composites, FIT30 120 is part of our structural adhesive product line and possesses:

- **Non-sagging capabilities on vertical surfaces** to enhance application ease
- **Environmental, weathering and aging resistance** to improve longevity
- **Fast cure and minimal surface preparation needs** to increase operational efficiencies

Best Practices & Tips



DECK BONDING & SEALING

Use a complete teak deck product system with a pretreatment and cleaning solution together to achieve optimal aesthetics and performance.



WINDOW GLAZING & BACKBEDDING

Consider products that adhere well to each other prior to fully curing. This will allow you to conduct both processes at the same time and increase efficiencies.



GENERAL PANEL SEALING

Avoid cleaning the substrates to be bonded and the finished, assembled product with acidic cleaners, including cleaners with citric acid, as this can cause adhesive/sealant failure.

Recommended Marine Exterior Technology

Silyl modified polymer (SMP) is a hybrid adhesive technology that offers the advantages of both silicones and polyurethanes, providing the right combination of flexibility and elasticity while providing excellent durability with limited surface treatment required. In addition to improving aesthetics, performance and quality, SMP also enhances worker safety and is free from isocyanates, solvents and PVC.

Marine: Interior Application Technology Tips

When manufacturing a marine vessel, your chosen materials play an important role your ability to meet interior application specifications. Here are certain qualities your adhesive should possess in key applications.



Featured Products by Application

Once you consider your application's adhesive technology needs, it's important to trial specific products. At Bostik, our technical experts will work with you every step along the way to help ensure that the right one is chosen that meets your needs. Here are suggested products that can help.

MARINE INTERIORS

- **Solvent-Based**

- LIQ. 4045
- 1096MR

- **Hot Melt**

- 9446
- 6239 (glue stick)

- **Instant**

- Born2Bond™ Ultra and Light Lock (one-component)
- Born2Bond™ Structural and Flex (two-component)

FEATURED MARINE INTERIOR PRODUCTS: LIQ. 4045 AND LIGHT LOCK

Our **LIQ 4045** solvent-based product is a fast-drying, general purpose, nitrile adhesive that offers:

- **High plasticizer resistance** to improve bonded assembly reliability on a long-term basis
- **Good adhesion to foams, PVCs and all metal types** to increase design options
- **Ability to be brush, roll or pre-applied** to improve assembly processes

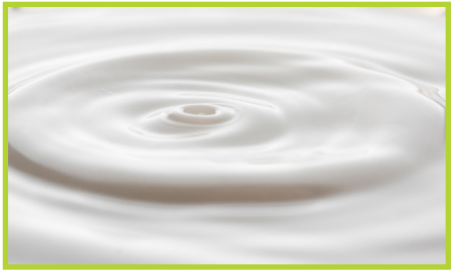
Our **Born2Bond Light Lock** is a patented, dual curing (via contact and light), semi-structural cyanoacrylate adhesive that is available in different viscosity grades and provides:

- **Fast bonding between all applicable substrates** to streamline production speeds
- **Multi-substrate adhesion and low blooming** to increase design options
- **Good weatherability and gap filling** to improve durability



Recommended Marine Interior Technology

While many adhesive technologies will work for interior marine applications, we recommend the following:



SOLVENT-BASED

Ideal for rubber bonding applications, such as neoprene and nitrile, these adhesives offer high strength, are fast drying and can be easily spray or brush applied to improve efficiencies and overall application performance with long service life plasticizer resistance.



HOT MELT

Available in a range of chemistries as well as in glue stick and pellet form, hot melt adhesives offer process flexibility and versatile bonding capabilities to rubbers, plastics, metals, low surface energy substrates, high density polyethylene and more. Hot melts also enable quick repairs to instantly improve aesthetics.



INSTANT

Applied at room temperature and available in convenient, point-of-use packaging, our instant adhesives cure quickly to increase production speeds and offer high bond strength compared to other technologies, making them suitable for applications that need to withstand significant weight or use.



Marine Exteriors

FOR GENERAL BONDING, SEALING AND GASKETING APPLICATIONS

The following products are all clear/transparent in color.

Product	Viscosity @25°C (cP)	Glass Transition Temp.	Service Temp. Range	Fixture Time (for aluminum & PVC)	Lap Shear Strength (for aluminum & PVC) @23°C
Born2Bond™ Ultra (LV, MV, HV, Gel)	LV: 20-50 cP MV: 120-170 cP HV: 700-1,000 cP Gel: 108,000 – 120,000	LV: 87°C (189°F) MV: 84°C (183°F) HV: 79°C (174°F) Gel: 55°C (131°F)	-40 - 80°C (-40 - 176°F)	LV: 5-15 secs. & 10-30 secs. MV: 10-20 secs. & 10-40 secs. HV: 10-20 secs. & 10-40 secs. Gel: 10-40 sec.	LV: 4 +/- 1 & 4 +/- 1 MV: 4 +/- 1 & 7 +/- 2 HV: 4 +/- 1 & 8 +/- 1 Gel: 4 ± 1 & 2 ± 1
Born2Bond™ Light Lock (MV, HV, Gel)	MV: 180-220 cP HV: 600-900 cP Gel: 30,000-45,000	MV: 90°C (194°F) HV: 92°C (198°F) Gel: 94°C (201°F)	-40 - 80°C (-40 - 176°F)	MV & HV: 10-40 secs. & 40-90 secs. Gel: 10-40 secs. & 60-100 secs.	MV: 2 +/- 1 & 6 +/- 1 HV: 4 +/- 1 & 4 +/- 2 Gel: 3 +/- 1 & 7 +/- 2
Born2Bond™ Structural	Part A: 100,000-150,000 @1.5 rpm, 4,000-7,000 @50 rpm Part B: 40,000-80,000 @1.5 rpm, 1,000-3,000 @50 rpm	91°C (196°F)	-40 - 120°C (-40 - 248°F)	15-100 secs. & 15-80 secs	12 +/- 1 & 5 +/- 1
Born2Bond™ Gasketing (GA-10, GA-18, GA-74)	GA-10: 40,000-140,000 GA-18: 200,000-800,000 GA-74: 30,000-50,000 mPa.s	N/A	GA-18 & GA-74: -55°C - 150°C (-67 - 302°F) GA-10: -55°C - 230°C (-67 - 110°F)	GA-10 & GA-18: <12 hrs. GA-74: 15-30 mins.	GA-10: <5 N/mm² GA-18: <5 N/mm² GA-74: >5 - 8.5 N/mm²

FOR THREADED ASSEMBLY APPLICATIONS

Product	Strength Nm	Viscosity (cP)	Fixture Time @20°C w/ activator & w/o activator	Full Cure Time @20°C	Breakaway Torque (Unseated & Pre-torqued) Nm
Born2Bond™ Pipe Sealing (PA-77 & PA-42)	PA-77: 11 PA-42: 15	PA-77: 80,000-90,000 PA-42: 400-800	PA-77: <10 mins. & <60 mins. PA-42: <5 mins. & 10-20 mins.	PA-77: 6-12 hrs. PA-42: 24 hrs.	PA-77 Unseated > 11 PA-42: 25 & 15
Born2Bond™ Threadlocking (TA-22, TA-43, TA-71, TA-90)	TA-22: 6 TA-43: 25 TA-71: 33 TA-90: 12	TA-22: 900-1,500 TA-43: 2,500-3,000 TA-71: 400-600 TA-90: 20-55	TA-22: <15 mins. & <20 mins. TA-43: <15 mins. TA-71: <5 mins. & <10 mins. TA-90: N/A & <10 mins.	12 hrs.	TA-22: 6 & 14 TA-43: 25 & 24 TA-71: 33 & 39 TA-90: 12 & 30
Product	Temp. Range	Worked Penetration (60 strokes @25°C)	K-Factor	Water Washout, % loss	Formulation
Never-Seez® Mariner's Choice	-183-1343°C (-297-2449°F)	260-310	0.11	@40°C/104°F: <1% @80°C/176°F: <2.75%	Calcium complex

Marine Interiors

RECOMMENDED HOT MELT ADHESIVES

Product	Open Time	Application Temp. Range	SAFT Temp.	Description
HM0130	30+ seconds	177 – 204°C (350 – 400°F)	-18 – 67°C (0 – 152°F)	Translucent glue stick with ability to bond to difficult substrates, including ABS
Thermogrip® 2124	30+ seconds	177 – 204°C (350 – 400°F)	-28 – 68°C (-20 – 154°F)	Translucent glue stick with porous and nonporous substrate bonding capabilities
Thermogrip® 6239	Up to 75 seconds	182 – 204°C (360 – 400°F)	-18 – 115°C (0 – 239°F)	Polyamide with excellent resistance to plasticizer migration
Thermogrip® 2999	N/A	163 – 191°C (325 – 375°F)	197°C (92°F)	Foam-in-place with good residual tack
Thermogrip® 2211	N/A	163 – 191°C (325 – 375°F)	91°C (195°F)	Pressure sensitive with good adhesion to metals and most plastics

RECOMMENDED HOT MELT ADHESIVES

Product	Type	Percent Solids	Application Method	Description
LIQ 1531	Polychloroprene	16%	Spray, brush, roll	Used in high-speed applications where large, uniform coverage is needed
LIQ 1685MC	Polychloroprene	29-31%	Brush, roll	Excellent bonding capabilities to polyurethane foam and abrasive grit, rubber to metal, wood to wood and leather
LIQ 1096MR	Polychloroprene	24.5%	Brush, roll	Fast tack with good heat resistance for bonding high-pressure and laminates to wood, particleboard, metal as well as rubber and rigid plastic surfaces
LIQ 4045	Nitrile	26%	Brush, roll	High initial bond strength and non-staining properties for bonding vinyl and plasticizer metals



Marine Exteriors & Interiors

RECOMMENDED PRODUCTS

Product	Type	Skin Time	Elongation at Break	Tensile Strength at Break	Colors	Description
70-08A AP	SMP	<15 mins.	250%	420 psi	Black	High green strength adhesive that passes FMVSS 212 requirements for glass glazing
920	PU	90 mins.	>500%	260 psi	White, Black	High elongation, moisture-cure adhesive/sealant with adhesion to most common marine substrates, including woods, metals, FPR and most plastics for above and below water line applications
920FS	PU	70 mins.	>500%	260 psi	White, Black	
940A	SMP	45 mins.	225%	450 psi	White, Black	Hybrid solution with sandability, paintability and UV resistance, able to be applied primerless to porous/nonporous substrates in most applications
940A FS	SMP	15 mins.	225%	450 psi	White, Black	
STR220A	SMP	40 mins.	800%	120 psi	White, Grey, Black	Sealant with good UV resistance and aging properties for coated and uncoated metals, glass, PVC, polyester and coated wood
STR350A	SMP	20 mins.	400%	350 psi	White, Grey, Black	Primerless adhesive/sealant with good UV resistance and aging properties for elastic joint and sealing applications
Prep G+	Primer	N/A	N/A	N/A	N/A	Blackout primer for glass

With a deep understanding of market trends as well as your goals and challenges, our technical experts work directly with you to help ensure that your marine vessels will offer improved aesthetics, increased quality and enhanced performance overall.

Contact a Bostik expert today to learn how our marine solutions can help you!



BOSTIK

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