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Adhesives, Sealants and Surface Treatments for RV Manufacturing
Recreational Vehicles Applications Guide



Henkel

Excellence is our Passion

PROUD MEMBER



INTRODUCTION

HENKEL IS A WORLD LEADER in adhesive, sealant, and surface treatment technologies for the recreational vehicle industry. Our ongoing commitment to innovation and development of breakthrough formulations enables our customers to compete successfully in today's challenging manufacturing environment.

WORLD-CLASS SURFACE TREATMENT TECHNOLOGIES

Our surface treatment materials have been used around the world in the automotive, railroad, and general transportation industries for many years.

In fact, RV manufacturers have grown to rely on Henkel's vast experience and in-depth knowledge in metal treatments to improve the design, assembly, productivity, and profitability of their operations.

As part of Henkel's broad portfolio, we offer pretreatment products that clean, condition, coat, and protect light metals, plastics, and steel. Our advanced materials thoroughly clean metal surfaces, provide long-lasting corrosion protection, and significantly improve adhesion and durability of paint finishes for both steel and aluminum frames.

NOISE, VIBRATION, AND HARSHNESS (NVH) SOLUTIONS

Our line of engineered products and components is geared to meet the demands of today's NVH sealing and structural designs. With a variety of forms, films, and foils, our high performing materials can be applied at any stage of manufacturing assembly, allowing greater flexibility to the user.



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Henkel's highly sophisticated Acoustics Laboratory provides detailed analytical reports that lead to the optimum solutions for noise reduction, structural reinforcement, and vibration dampening.

MARKET-LEADING TECHNOLOGY AND INNOVATION

With adhesive, sealant, and surface treatment centers strategically located across North America, and a team of experienced, professional field sales engineers, we work in partnership with our customers to create tailored solutions that meet the most stringent application requirements.

From providing metal treatments for the chassis to laminating adhesives for walls, roofs, and floors, Henkel assists RV manufacturers in streamlining operations, improving quality, increasing productivity, and, most importantly, saving money.

Henkel works in **PARTNERSHIP** with our
CUSTOMERS to create tailored solutions that meet
the most stringent application **REQUIREMENTS.**



ASSEMBLY

IN EVERY RECREATIONAL VEHICLE, the walls, floors, and roof assemblies must all be strong, structural components that resist moisture penetration. Henkel provides its customers with unmatched products to bond and seal these parts, as well as other assemblies such as cabinets, valances, sport flooring, and door assemblies.

These assembly adhesives offer fast cure times and superior strength as well as moisture and chemical resistance. The structural adhesives in Henkel's portfolio also help eliminate the need for fasteners or welds. Our urethane and modified silane technologies reduce the cost of using mechanical gaskets and improve window glazing operations.



ASSEMBLY APPLICATIONS PRODUCT LISTING

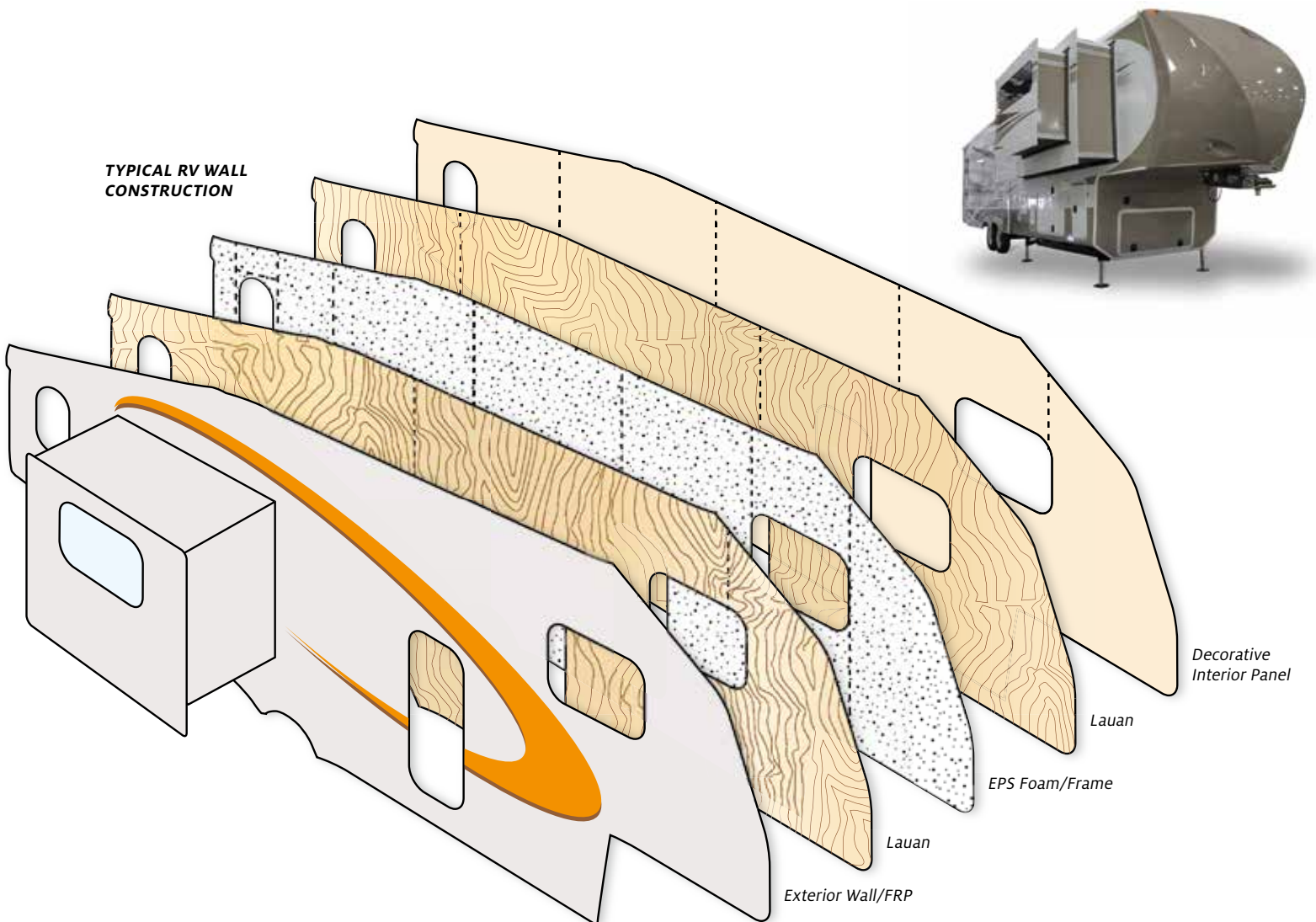
APPLICATION	SUBSTRATE	PRODUCT	CHEMISTRY	CONTAINER	PROCESS	BENEFITS
WALLS/FLOOR SEALING	Aluminum/Aluminum	TEROSON® RB 477™	Multipolymer	Cartridge	Extruded	Good Adhesion
WALLS/FLOOR BONDING	Aluminum/Aluminum	LOCTITE® AA H8000™ Structural Adhesive	Acrylic	Cartridge/Pail	Extruded	Fastest Set
		TEROSON® PU 3370™ Adhesive	Urethane	Cartridge/Sausage/Pail/Drum	Extruded	Fast Fixturing
ROOF/WALLS	Aluminum/Aluminum	TEROSON® PU 3370™ Adhesive	Urethane	Cartridge/Sausage/Pail/Drum	Extruded	Fast Fixturing
CABINETS	HPL/Particle Board	LOCTITE® MR 511™ Adhesive	Solvent Borne	Drum	Sprayed	Fast Set
		AQUENCE® CD 301™	Waterborne	Drum/Tote	Sprayed	Environmentally Safe/ Excellent Coverage
VALANCES	Fabric/Foam/Plywood	LOCTITE® MR 511™ Adhesive	Solvent Borne	Drum	Sprayed	Fast Set
		AQUENCE® CD 381Y™	Waterborne	Box	Sprayed	Fast Set
VENEER PLYWOOD	Veneer/Plywood	LOCTITE® UR 110™ Series (Various Speeds) Adhesive	Urethane	Drum/Tote	Extruded/ Roll Coat	Cost Efficient/Structural
		LOCTITE® UR 8340™ Series (9 Speeds) Adhesive	Urethane	Drum/Tote	Roll Coat	Excellent Strength
CARGO FLOOR SURFACING	Wood or Steel	LOCTITE® Big Foot® Vehicle Grade Coating	Urethane	Kits	Roll/Spray/ Trowel	Water and Chemical Resistant
CARGO DOOR SEALING	Aluminum/Aluminum	TEROSON® RB 477™	Multipolymer	Cartridge	Extruded	Cost Efficient
CARGO DOOR BONDING	Aluminum/Aluminum	LOCTITE® AA H8000™ Structural Adhesive	Acrylic	Cartridge/Pail	Extruded	High Strength
		TEROSON® PU 3370™ Adhesive	Urethane	Cartridge/Sausage/Pail/Drum	Extruded	Fast Fixturing
WINDOW AFFIXING	Aluminum/FRP	TEROSON® Structural Hot Melts	Butyl	Cartridge	Extruded	Eliminates Fasteners
DOORS: FRP	FRP/Aluminum Frame/ EPS	TECHNOMELT® PUR™ 834A™ Adhesive	Urethane	Drum/Keg	Roll Coat	Fast Set
		TEROSON® PU 3370™ Adhesive	Urethane	Cartridge/Sausage/Pail/Drum	Extruded	Fast Fixturing
WINDOW GLAZING	Glass/Metal	TEROSON® PU 8599™	Urethane	Cartridge/Pail/Drum	Extruded	High Strength
		TEROSON® MS 9360™	Modified Silane	Cartridge/Pail/Drum	Extruded	No Primer Required
		TECHNOMELT® PUR™ 2578™	Urethane	Pail/Drum	Extruded	Fast Set

WALLS

IN TODAY'S COMPETITIVE BUSINESS

ENVIRONMENT, lowering manufacturing costs is vital to a company's success. Whether your wall bonding application consists of laminating, hanging, or stick and tin, Henkel's experience in formulating panel bonding adhesives can help bring your product to market faster. We can lower project costs by reducing or eliminating expensive fasteners and providing for a more efficient assembly process.

With the durability of our moisture cure urethanes and reactive hot melts, as well as our hung glass mastics and general assembly hot melts, Henkel is committed to becoming your one-source supplier.



WALL APPLICATIONS PRODUCT LISTING

APPLICATION	SUBSTRATE	PRODUCT	CHEMISTRY	CONTAINER	PROCESS	BENEFITS
LAMINATED	FRP/Lauan/ EPS/Lauan	LOCTITE® UR 110™ Series (Various Speeds) Adhesive	Urethane	Drum/Tote	Extruded/Roll Coat	Cost Efficient/Structural
		LOCTITE® UR 8340™ Series (9 Speeds) Adhesive	Urethane	Drum/Tote	Extruded/Roll Coat	Cost Efficient/Structural
		TECHNOMELT® PUR™ 798A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
		TECHNOMELT® PUR™ 913A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
		TECHNOMELT® PUR™ 834A™ Adhesive	Urethane	Drum	Roll Coat	Excellent Green Strength
		TECHNOMELT® PUR™ 862A™ Adhesive	Urethane	Drum	Roll Coat	Excellent Green Strength
EPS AFFIXING	EPS/Aluminum Frame	TECHNOMELT® GA 6538™ Adhesive	Hot Melt	Box	Sprayed (Hot)	Replaces Masking Tape
EGS AFFIXING	EGS/EPS	TECHNOMELT® PS 5621™ Adhesive	Hot Melt	Box	Sprayed (Hot)	Productivity
		TECHNOMELT® GA 6538™ Adhesive	Hot Melt	Box	Sprayed (Hot)	Productivity
		TECHNOMELT® PS 713A™ Adhesive	Hot Melt - PSA	Box	Sprayed (Hot)	Productivity
MOLD RELEASE	FRP and Fiberglass	LOCTITE® FREKOTE® WOLO™ Release Agent	Solvent	PT, 1/5 GL	Wipe On/Leave On	Multiple Release
		LOCTITE® FREKOTE® 700-NC™ Release Agent	Solvent	PT, 1/5/55 GL	Wipe On/Wipe Off	Multiple Release
		LOCTITE® FREKOTE® 770-NC™ Release Agent	Solvent	PT, 1/5/55 GL	Wipe On/Wipe Off	Multiple Release/High Gloss
		LOCTITE® FREKOTE® 915WB™ Cleaner	Water Based	GL	Wipe On	Cleans/Polishes Molds
		LOCTITE® FREKOTE® FMS™ Mold Sealer	Solvent	PT, 1/5 GL	Wipe On	Mold Sealer
HUNG GLASS	Skins (FRP/Lauan)	TECHNOMELT® PUR™ 798A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
		TECHNOMELT® PUR™ 913A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
		TECHNOMELT® PUR™ 834A™ Adhesive	Urethane	Drum	Roll Coat	Excellent Green Strength
		TECHNOMELT® PUR™ 862A™ Adhesive	Urethane	Drum	Roll Coat	Excellent Green Strength
	Skin/Wood	TEROSON® PU 3370™ Adhesive	Urethane	Cartridge/Sausage/ Pail/Drum	Extruded	Strong Bond/Structural
	Skin/Aluminum Frame	TEROSON® PU 3370™ Adhesive	Urethane	Cartridge/Sausage/ Pail/Drum	Extruded	Durable
	Batt Insulation Affixing	TECHNOMELT® PS 5621™ Adhesive	Hot Melt	Box	Sprayed (Hot)	Cost Efficient
		LOCTITE® MR 511™ Adhesive	Solvent Borne	Drum	Sprayed	Ambient Curing
STICK AND TIN	Batt Insulation/ Lauan	TECHNOMELT® PS 5621™ Adhesive	Hot Melt	Box	Sprayed (Hot)	Cost Efficient
		LOCTITE® MR 511™ Adhesive	Solvent Borne	Drum	Sprayed	Ambient Curing

CHASSIS

HENKEL OFFERS A WIDE RANGE OF PRODUCTS to clean and prep prime steel and aluminum, secure bolt threads, bond components to the frame, and affix cargo liners and fabrics. We have a proven track record of providing structural bonding solutions resulting in substantial cost savings for our customers. Our unique portfolio offers a variety of structural adhesives to increase frame strength and a line of rugged undercoatings to prevent corrosion and reduce road noise. The result of using these products is a more comfortable, quieter, and worry-free ride for today's recreational vehicle enthusiast.



The result of using **HENKEL** products is a more **COMFORTABLE**, quieter, and worry-free ride for today's **RV ENTHUSIAST**.



CHASSIS APPLICATIONS PRODUCT LISTING

APPLICATION	SUBSTRATE	PRODUCT	CHEMISTRY	CONTAINER	PROCESS
Metal Cleaning	Steel/Aluminum	BONDERITE® C-SO 263™ Cleaning Wipes	Solvent Borne	Case	Wipe On
Metal Converting (priming)	Steel	BONDERITE® M-PT 7100™ Post Treatment	Waterborne	Pail/Drum	Sprayed
	Aluminum	BONDERITE® M-NT 5700™ Conversion Coating	Waterborne	Wipes/Pail/Drum	Wipe On or Dip
Threadlocking	Steel Nuts and Bolts	LOCTITE® 2760™ Threadlocker	Proprietary	Bottle	Squeeze from Bottle
Pipe Thread Sealing	Hydraulic/Pneumatic	LOCTITE® 545™ Thread Sealant	Proprietary	Bottle	Squeeze from Bottle
	Plastic Pipe	LOCTITE® No More Leaks™	Proprietary	Tube/Brush Can	Wipe On
	Copper	LOCTITE® 565™ Thread Sealant	Proprietary	Tube	Squeeze from Tube
	Black Pipe	LOCTITE® 561™ Pipe Sealant	Proprietary	White Stick	Wipe On
Frame Stiffener	Steel/Aluminum	TEROSON® Terocore® Structural Epoxy Foam	Two-Part Epoxy	Pail/Drum	Injected, Pumped
Cargo Lining	Steel/Carpet	LOCTITE® MR 511™ Adhesive	Solvent Borne	Drum	Sprayed
		TECHNOMELT® PS 8845™ Adhesive	Hot Melt	Box	Sprayed (Hot)
Structural Bonding	Steel/Galvanized	LOCTITE® AA H8600™ Structural Adhesive	Acrylic	Cartridge/Pail	Extruded
	Aluminum	LOCTITE® AA H8000™ Structural Adhesive	Acrylic	Cartridge/Pail	Extruded
Undercoating	Steel/Aluminum	LOCTITE® HD Rubberized Undercoating	Solvent Borne	16 oz. Spray Can	Sprayed
Floor Affixing	Steel/Polymax	TEROSON® PU 3370™ Adhesive	Urethane	Cartridge/Sausage/ Pail/Drum	Extruded
		LOCTITE® SI 5510™ Sealant	Flex Tech	Cartridge	Extruded
Sealing	Various	TEROSON® RB 477™ Sealant	Multipolymer	Cartridge	Extruded
		LOCTITE® SI 5510™ Sealant	Flex Tech	Cartridge	Extruded



FLOORS

HENKEL PROVIDES A BROAD ARRAY of structural bonding adhesives, which can be used to laminate and bond floors instead of mechanical fastening. Use of these products avoids vibrational loosening of bolts. Our sealant technologies can also assist in reducing structural noise and resisting environmental elements.



FLOOR APPLICATIONS PRODUCT LISTING

APPLICATION	SUBSTRATE	PRODUCT	CHEMISTRY	CONTAINER	PROCESS	BENEFITS
FLOOR LAMINATION	Belly Metal/ Steel/OSB	LOCTITE® UR 110™ Series (Various Speeds) Adhesive	Urethane	Drum/Tote	Extruded/ Roll Coat	Cost Efficient/Structural
		LOCTITE® UR 8340™ Series (9 Speeds) Adhesive	Urethane	Drum/Tote	Bead Applicator	Cost Efficient/Structural
	TPO Liner/ Steel/OSB	LOCTITE® UR 110™ Series (Various Speeds) Adhesive	Urethane	Drum/Tote	Extruded/ Roll Coat	Cost Efficient/Structural
		LOCTITE® UR 8340™ Series (9 Speeds) Adhesive	Urethane	Drum/Tote	Bead Applicator	Cost Efficient/Structural
	EPS	TECHNOMELT® PUR™ 798A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
	Lauan	TECHNOMELT® PUR™ 913A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
	OSB	TECHNOMELT® PUR™ 834A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
		TECHNOMELT® PUR™ 862A™ Adhesive	Urethane	Drum	Roll Coat	Excellent Green Strength
EPS AFFIXING	EPS/Frame	TECHNOMELT® GA 6538™ Adhesive	Hot Melt	Box	Sprayed (Hot)	Fast Set
SEALANTS	Various	TEROSON® RB 477™ Sealant	Multipolymer	Cartridge	Extruded	Good Adhesion
		TEROSON® PU 3370™ Adhesive	Multipolymer	Cartridge	Extruded	Fast Fixturing
SOUND DEADENING	Floor to Chassis Bonding	TEROSON® PU 3370™ Adhesive	Multipolymer	Cartridge	Extruded	Fast Fixturing
	Floor to Chassis Sealing	LOCTITE® SI 5510™ Sealant	Flex Tech	Cartridge	Extruded	Cost Efficient
	Steel	TEROSON® AL 2700™ MK	Acrylic	Pail/Drum/Tote	Sprayed	Replaces Bitumen-Based Melt Sheets



ROOFS

HENKEL OFFERS STRUCTURAL ADHESIVES

that will improve your assembly process, whether you laminate or use “stick and tin” construction with trusses. Our moisture cure urethane lamination adhesives have passed rigorous, independent laboratory tests for all load-bearing applications. These products provide RV manufacturers with the flexibility to bond to multiple substrates. Henkel also offers a wide range of Frekote® mold release technologies for your fiberglass-reinforced plastic and composite fabrication processes.



ROOF APPLICATIONS PRODUCT LISTING

APPLICATION	SUBSTRATE	PRODUCT	CHEMISTRY	CONTAINER	PROCESS	BENEFITS
LAMINATED:						
Flat	FRP/Lauan/ EPS/Lauan	LOCTITE® UR 110™ Series (Various Speeds) Adhesive	Urethane	Drum/Tote	Extruded/Roll Coat	Cost Efficient/Structural
		LOCTITE® UR 8340™ Series (9 Speeds) Adhesive	Urethane	Drum/Tote	Extruded	Cost Efficient/Structural
		TECHNOMELT® PUR™ 798A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
		TECHNOMELT® PUR™ 913A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
		TECHNOMELT® PUR™ 834A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
		TECHNOMELT® PUR™ 862A™ Adhesive	Urethane	Drum	Roll Coat	Excellent Green Strength
Radius	FRP/Lauan X2/ EPS/Lauan	LOCTITE® UR 110™ Series (Various Speeds) Adhesive	Urethane	Drum/Tote	Extruded/Roll Coat	Cost Efficient/Structural
		LOCTITE® UR 8340™ Series (9 Speeds) Adhesive	Urethane	Drum/Tote	Bead	Cost Efficient/Structural
		TECHNOMELT® PUR™ 798A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
		TECHNOMELT® PUR™ 913A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
		TECHNOMELT® PUR™ 834A™ Adhesive	Urethane	Drum	Roll Coat	Long Open Time/Excellent Machinability
		TECHNOMELT® PUR™ 862A™ Adhesive	Urethane	Drum	Roll Coat	Excellent Green Strength
FRP Roof	FRP/Lauan	LOCTITE® UR 110™ Series (Various Speeds) Adhesive	Urethane	Drum/Tote	Extruded/Roll Coat	Cost Efficient/Structural
		LOCTITE® UR 8340™ Series (9 Speeds) Adhesive	Urethane	Drum/Tote	Bead	Cost Efficient/Structural
Block Affixing	EPS Blocks	TECHNOMELT® PS 8845™ Adhesive	Hot Melt	Box	Hot Spray	Fast Set
		TECHNOMELT® GA 6538™ Adhesive	Hot Melt	Box	Sprayed (Hot)	Productivity
HEADLINERS:						
Fabric	Fabric/Lauan	AQUENCE® CD 381Y™ Adhesive	Waterborne	Cubitainer	Spray	Quick Grab
		LOCTITE® MR 511™ Adhesive	Solvent Borne	Drum	Spray	Quick Grab
F.B. Vinyl	Vinyl/Lauan	AQUENCE® CD 381Y™ Adhesive	Waterborne	Cubitainer	Spray	Quick Grab
Mold Release	FRP/Fiberglass	LOCTITE® Frekote® WOLO™ Release Agent	Solvent	PT, 1/5 GL	Wipe On/Leave On	Multiple Release
		LOCTITE® Frekote® 700-NC™ Release Agent	Solvent	PT, 1/5/55 GL	Wipe On/Wipe Off	Multiple Release
		LOCTITE® Frekote® 770-NC™ Release Agent	Solvent	PT, 1/5/55 GL	Wipe On/Wipe Off	Multiple Release/High Gloss
		LOCTITE® Frekote® 915WB™ Cleaner	Water Based	GL	Wipe On	Cleans and Polishes Molds
		LOCTITE® Frekote® FMS™ Mold Sealer	Solvent	PT, 1/5 GL	Wipe On	Mold Sealer

SEALING

HENKEL OFFERS AN EXTENSIVE LINE OF HIGH PERFORMANCE SILICONES, multipolymer and new modified silane chemistries for multipurpose seam sealing. These products provide superior quality and high bond strength, overcoming difficulties posed by dissimilar substrates, temperature changes, and joint movement. Henkel also offers anti-wick coatings and sealants for both interior and exterior applications. Our exceptional sales and engineering staff can help you select the appropriate products for each sealing application to increase the longevity of your recreational vehicle.



SEALING APPLICATIONS PRODUCT LISTING

APPLICATION	SUBSTRATE	PRODUCT	CHEMISTRY	CONTAINER	PROCESS	BENEFITS
Exterior Openings	Windows/Doors/Vents	TEROSON® RB 477™	Multipolymer	Cartridge	Extruded	Quick Skin
		LOCTITE® SI 5510™ Sealant	Flex Tech	Cartridge/Pail/Drum	Extruded	Paintable Sealant
Anti-Wicking Compounds	Any Cross-Section Opening	AQUENCE® 485™ Black Adhesive	Waterborne	Drum/Pail	Hand Rolled	Good Filling
Interior	Bath/Kitchens	TEROSON® RB-477™	Multipolymer	Cartridge	Extruded	Quick Skin
General Seam Sealing	Various	LOCTITE® Silatech® Adhesive	RTV Silicone	Cartridge	Extruded	Temperature and Water Resistance
		TEROSON® RB 477™	Multipolymer	Cartridge	Extruded	Quick Skin





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