

Manufacturer	Part number, brand name or description	One- or two-part	Primer	Primer dry time	Minimum installation temperature, degrees Fahrenheit	Minimum drive-away time with dual air bags	Lap shear at drive-away	Ultimate cure time	Lap shear at ultimate cure	Recommended uses, additional comments from company representatives
Adco Products Inc. www.adcocorp.com	Titan Pro1 primerless, all-weather, one-hour isocyanate-free urethane.	One	Primerless. Pinchweld scratches and rust should be sealed with Titan UP-100 or WIP 40.	10 minutes	0 F Adhesive must be warm enough to gun	1 hour per safe drive-away chart	Not applicable	Less than 24 hours at 72 F and 50 percent relative humidity	Greater than 550 pounds per square inch (psi)	Full windshield and backlite installations. Primerless, non-conductive, all-weather, one-hour adhesive. Isocyanate-free for enhanced installation safety. Exceeds FMVSS 212 standard and meets original equipment manufacturer (OEM) standards.
	Titan Pro2 primerless, all-weather, two-hour isocyanate-free urethane.	One	Primerless. Pinchweld scratches and rust should be sealed with Titan UP-100 or WIP 40.	10 minutes	0 F Adhesive must be warm enough to gun	2 hours per safe drive-away chart	Not applicable	Less than 24 hours at 72 F and 50 percent relative humidity	Greater than 550 psi	Full windshield and backlite installations. Primerless, non-conductive, all-weather, two-hour adhesive. Isocyanate-free for enhanced installation safety. Exceeds FMVSS 212 standard and meets OEM standards.
	Titan 660 primerless, high modulus, isocyanate-free urethane. Lynx approved.	One	Primerless. Pinchweld scratches and rust should be sealed with Titan UP-100 or WIP 40.	10 minutes	20 F Adhesive must be warm enough to gun	3 hours per safe drive-away chart	Not applicable	Less than 36 hours at 72 F and 50 percent relative humidity	Greater than 450 psi	Full windshield and backlite installations. Improved Titan 660 formula now with three-hour safe drive-away time. Heavy body formulation is sag resistant and maintains bead profile. Exceeds FMVSS 212 standard and meets OEM standards.
	Titan 380 primerless, high modulus, isocyanate-free urethane. Lynx approved.	One	Primerless. Pinchweld scratches and rust should be sealed with Titan UP-100 or WIP 40.	10 minutes	40 F Adhesive must be warm enough to gun	4 hours at 72 F and 50 percent relative humidity	Not applicable	Less than 36 hours at 72 F and 50 percent relative humidity	Greater than 550 psi	Full windshield and backlite installations. Easy to apply, primerless and guns without sagging. Exceeds FMVSS 212 standard and meets OEM standards.
C.R. Laurence Co. www.crlaurence.com	CRL900HV high viscosity, fast-curing, cold-applied in 10.5-fluid-ounce cartridge and CRL915HV in 15.2-fluid-ounce sausages; part of the Lynx Services program.	One	CRL9P pinchweld primer, CRL9GC glass primer, PWR22 automotive glass cleaner.	10 minutes at 40 F plus	15 F	8 hours at 72 F and 40 percent relative humidity	Not applicable	3/8-inch bead per 24 hours at 72 F and 50 percent relative humidity	650 psi	High strength and best value. Passes Federal Motor Vehicle Safety Standard Nos. 208 and 212 with dual air bags and unrestrained dummies.
	CRL950FC high viscosity, fast-curing with high initial strength, cold-applied; part of the Lynx Services program.	One	CRL9P pinchweld primer, CRL9GC glass primer, PWR22 automotive glass cleaner.	10 minutes at 40 F plus	15 F	4 hours at 72 F and 40 percent relative humidity	Not applicable	3/8-inch bead per 24 hours at 72 F and 50 percent relative humidity	More than 500 psi	Acceptable for nonconductive applications. Passes FMVSS Nos. 208 and 212 with dual air bags and unrestrained dummies.
	CRL700 high viscosity, hot-applied; part of the Lynx Services program.	One	CRL9P pinchweld primer, CRL9GC glass primer, PWR22 automotive glass cleaner.	10 minutes at 40 F plus	15 F	4 hours at 70 F and 60 percent relative humidity	Not applicable	3/8-inch bead per 24 hours at 72 F and 50 percent relative humidity	700 psi	Heat-accelerated, easiest gunning CRL urethane. Acceptable for nonconductive applications. Passes FMVSS Nos. 208 and 212 with dual air bags and unrestrained dummies.
	PP301HV high viscosity, primerless-to-glass; part of the Lynx Services program.	One	PP3MP pinchweld primer, PP3UV EPDM/PVC primer ultraviolet blocker, PWR22 automotive glass cleaner.	10 minutes	40 F	3 hours at 70 F and 50 percent relative humidity	150 psi	3/8-inch bead per 24 hours at 70 F and 50 percent relative humidity	More than 550 psi	Crash tested; passes FMVSS Nos. 212, 216 and 208. Primerless-to-glass with superior decking support. Fast green strength build-up. Isocyanate-free. Formula self-produces moisture during curing for faster cure rates. Premium value.
	PP302MV medium viscosity, primerless-to-glass; part of the Lynx Services program.	One	PP3MP pinchweld primer, PP3UV EPDM/PVC primer ultraviolet blocker, PWR22 automotive glass cleaner.	10 minutes	40 F	4 hours at 70 F and 50 percent relative humidity	150 psi	3/8-inch bead per 24 hours at 70 F and 50 percent relative humidity	More than 550 psi	Primerless-to-glass with great superior decking support. Fast green strength build-up. Isocyanate-free. Formula self-produces moisture during curing for faster cure rates. Premium value.
Dow Automotive www.dowautomotiveaftermarket.com	BetaSeal* Express, Express EP and Express BP advanced-cure urethane adhesive	One	Glass: BetaPrime* 5500/5500SA one-step glass and frit primer, or U-401 urethane glass and frit prep No. 1 and U-402 glass and frit primer No. 2. Body: BetaPrime 5404A pinchweld and encapsulation primer, or U-413 urethane pinchweld primer.	6 minutes	0 F	1 hour	Not applicable	Less than 24 hours at 72 F and 50 percent relative humidity	More than 500 psi	Suitable for structurally bonded or direct-glazed glass such as windshields, backlites, quarter glass and other stationary glass; also channel bonding, attaching hardware to glass and backfilling to install reveal moldings or other trim.

Manufacturer	Part number, brand name or description	One- or two-part	Primer	Primer dry time	Minimum installation temperature, degrees Fahrenheit	Minimum drive-away time with dual air bags	Lap shear at drive-away	Ultimate cure time	Lap shear at ultimate cure	Recommended uses, additional comments from company representatives
Dow Automotive	BetaSeal One all-application auto glass urethane adhesive	One	Glass: BetaPrime* 5500/5500SA one-step glass/frit primer, or U-401 urethane glass and frit prep No. 1 and U-402 glass and frit primer No. 2. Body: BetaPrime 5404A pinchweld and encapsulation primer, or U-413 urethane pinchweld primer.	6 minutes	0 F	1 hour	Not applicable	Less than 24 hours at 72 F and 50 percent relative humidity	More than 500 psi	Suitable for all applications, including high modulus and nonconductive, structurally bonded or direct-glazed glass such as windshields, backlites, quarter glass and other stationary glass; also channel bonding, attaching hardware to glass and backfilling to install reveal moldings or other trim.
	BetaSeal U-216 two-component urethane adhesive	Two	Same as above.	6 minutes	0 F	1 hour	Not applicable	Less than 24 hours at 72 F and 50 percent relative humidity	More than 500 psi	Suitable for structurally bonded or direct-glazed glass such as windshields, backlites, quarter glass and other stationary glass; also channel bonding, attaching hardware to glass and backfilling to install reveal moldings or other trim.
	BetaSeal U-400HV and U-400BP rapid-cure urethane adhesive	One	Same as above.	6 minutes	40 F	2 hours	Not applicable	Less than 24 hours at 72 F and 50 percent relative humidity	More than 500 psi	Suitable for structurally bonded or direct-glazed glass such as windshields, backlites, quarter glass and other stationary glass; also channel bonding, attaching hardware to glass and backfilling to install reveal moldings or other trim. OEM approved and used.
	BetaSeal U-418 quick-cure, primerless-to-glass urethane adhesive	One	Glass: None required. Body: BetaPrime 5404A pinchweld and encapsulation primer, or U-413 urethane pinchweld primer.	6 minutes	40 F	3 hours	Not applicable	Less than 24 hours at 72 F and 50 percent relative humidity	More than 500 psi	Suitable for structurally bonded or direct-glazed glass such as windshields, backlites, quarter glass and other stationary glass; also channel bonding, attaching hardware to glass and backfilling to install reveal moldings or other trim. Primerless-to-glass.
	BetaSeal U-418HV quick-cure, primerless-to-glass urethane adhesive	One	Same as above.	6 minutes	40 F	3 hours	Not applicable	Less than 24 hours at 72 F and 50 percent relative humidity	More than 500 psi	Suitable for structurally bonded or direct-glazed glass such as windshields, backlites, quarter glass and other stationary glass; also channel bonding, attaching hardware to glass and backfilling to install reveal moldings or other trim. Primerless-to-glass. High viscosity.
Eftec Aftermarket www.eftecna.com	D-410	One	Primerless-to-glass, paint, metal.	Not applicable	Best if used at moderate temperature	Not applicable	Not applicable	More than 24 hours	260 psi	Primerless urethane for rubber gaskets, sealing leaks, bonding trims and moldings and backfill.
	D-500MV D-500MVFW	One	One-step D-528 primer, two-step D-520 glass activator and cleaner and D-530 glass and pinchweld primer. For PVC, use D-560 primer. For pre-applied adhesive system and encapsulated parts, use D-540 primer.	10 minutes	40 F	3 hours	Not applicable	More than 24 hours	910 psi	Medium viscosity, OEM-approved and used, crash tested.
	D-500 D-500FW	One	Same as above.	10 minutes	40 F	3 hours	Not applicable	More than 24 hours	910 psi	Medium viscosity, OEM-approved and used, crash tested.
	D-500SA	One	Same as above.	10 minutes	40 F	3 hours	Not applicable	More than 24 hours	880 psi	High viscosity, OEM-approved and used.
	D-501HV D-501HVFW	One	Same as above.	10 minutes	40 F	1.5 hours	Not applicable	More than 24 hours	1,100 psi	High viscosity, OEM-approved and used.
	D-501HVHM D-501HVHMFW	One	Same as above.	10 minutes	40 F	1 hour	Not applicable	More than 24 hours	1,300 psi	High modulus, high viscosity, OEM-approved and used, crash tested.
	D-506	One	Same as above.	10 minutes	0 F	1 hour	Not applicable	More than 24 hours	1,070 psi	Heated, high modulus, high viscosity, excellent decking, OEM-approved and used, crash tested.
	D-9000 D-9000FW	One	Same as above.	10 minutes	0 F	1 hour	Not applicable	More than 24 hours	910 psi	Cold applied, high modulus, nonconductive, high viscosity, superior decking properties, OEM-approved and used, crash tested.

Manufacturer	Part number, brand name or description	One- or two-part	Primer	Primer dry time	Minimum installation temperature, degrees Fahrenheit	Minimum drive-away time with dual air bags	Lap shear at drive-away	Ultimate cure time	Lap shear at ultimate cure	Recommended uses, additional comments from company representatives
PPG Rapid Seal www.ppgautoglass.com/catalog/cat_RapidSeal.htm	RS100HV	One	Glass: RS25 Pinchweld and encapsulated parts: RS23	RS25: 10 minutes RS23: 5 minutes	41 F or greater	2 hours	Not applicable	4 millimeters per 24 hours at 73 F and 50 percent relative humidity	1,015 psi	Cold-applied, cost-effective, high viscosity polyurethane windshield adhesive.
	RS200HV	One	Glass: RS25 Pinchweld and encapsulated parts: RS23	RS25: 10 minutes RS23: 5 minutes	0 F	1 hour	Not applicable	4 millimeters per 24 hours at 73 F and 50 percent relative humidity	725 psi	Cold-applied, high viscosity polyurethane windshield adhesive offering a 1-hour drive-away time at 0 F.
	RS400HV	One	Glass: RS25 Pinchweld and encapsulated parts: RS23	RS25: 10 minutes RS23: 5 minutes	41 F or greater	2 hours	Not applicable	4 millimeters per 24 hours at 73 F and 50 percent relative humidity	>435 psi	Cold-applied, high modulus, nonconductive polyurethane windshield adhesive.
Shat R Proof Corp. www.shatproof.com	SRP101EZ	One	Primerless-to-glass adhesive SRP5025 pinchweld primer might be required.	5-to-10 minutes for SRP5025	40 F	3 hours	144 psi	Less than 24 hours at 72 F and 50 percent relative humidity	More than 725 psi	The SRP101EZ is a primerless-to-glass product designed to speed up installation times without cutting corners or using questionable practices.
	SRP160HT	One	SRP7016 glass prep and SRP5028 glass primer or SRP7000 One-step for glass. SRP pinchweld primer.	5-to-10 minutes for SRP5025 and SRP5028. 3 minutes needed for SRP7000 and SRP7016.	15 F	1 hour	144 psi	Less than 24 hours at 72 F and 50 percent relative humidity	More than 725 psi	This preheated urethane is designed to give installers an accelerated safe drive-away time and superior decking. Achieves dual air-bag drive-away times in as little as one hour.
	SRP180HV SRP180FP	One	SRP7016 glass prep and SRP5028 glass primer or SRP7000 One-step for glass. SRP pinchweld primer.	5-to-10 minutes for SRP5025 and SRP5028. 3 minutes needed for SRP7000 or SRP7016.	20 F	1 hour	144 psi	Less than 24 hours at 72 F and 50 percent relative humidity	More than 725 psi	The SRP180HV is a dependable, everyday adhesive with quick drive-away times and superior decking. Achieves dual air-bag drive-away times in as little as one hour.
	SRP360HV	One	SRP7016 glass prep and SRP5028 glass primer or SRP7000 One-step for glass. SRP pinchweld primer.	5-to-10 minutes for SRP5025 and SRP5028. 3 minutes needed for SRP7000 and SRP7016.	0 F	1 hour	144 psi	Less than 24 hours at 72 F and 50 percent relative humidity	More than 725 psi	New for 2006, the SRP360 ^o is required when installing auto glass on many of today's sports and luxury vehicles. The high-modulus formula adds torsional stiffness to the vehicle's windshield, while the nonconductive aspect protects the electronics embedded in the glass or encapsulation of the windshield. Also required on vehicles with aluminum body frames.
	SRP Velocity	One	SRP7016 glass prep and SRP5028 glass primer or SRP7000 One-step for glass. SRP pinchweld primer.	5-to-10 minutes for SRP5025 and SRP5028. 3 minutes needed for SRP7000 or SRP7016.	0 F	1 hour	144 psi	Less than 24 hours at 72 F and 50 percent relative humidity	More than 725 psi	The SRP Velocity offers one-hour drive-away times year-round and in all weather conditions.
Sika Corp. www.sikaindustry.com	SikaTack ASAP hot-applied windshield adhesive	One	Sika Aktivator, Sika primer 206 G+P.	10 minutes at 40 F plus	0 F	45 minutes	Not supported	$\frac{3}{16}$ -inch bead in 24 hours at 73 F and 50 percent relative humidity	500 psi	Acceptable for nonconductive applications. Use Sika primer 206 G+P on pinchweld scratches.
	SikaTack Ultrafast II hot-applied windshield adhesive	One	Sika Aktivator, Sika primer 206 G+P.	10 minutes at 40 F plus	15 F	2 hours	Not supported	$\frac{3}{16}$ -inch bead in 24 hours at 73 F and 50 percent relative humidity	500 psi	Acceptable for nonconductive applications. Use Sika primer 206 G+P on pinchweld scratches.
	SikaTack COOL fast-curing, cold-applied, "all-in-one" windshield adhesive	One	Sika Aktivator, Sika primer 206 G+P.	10 minutes at 40 F plus	32 F	2 hours	Not supported	$\frac{3}{16}$ -inch bead in 24 hours at 73 F and 50 percent relative humidity	650 psi	Acceptable for all applications, including nonconductive and high modulus. Use Sika primer 206 G+P on pinchweld scratches.
	Sikaflex 220+ fast-curing, cold-applied windshield adhesive	One	Sika Aktivator, Sika primer 206 G+P.	10 minutes at 40 F plus	15 F	8 hours	Not supported	$\frac{3}{16}$ -inch bead in 24 hours at 73 F and 50 percent relative humidity	600 psi	Contact a Sika representative for additional technical information. Use Sika primer 206 G+P on pinchweld scratches.

Manufacturer	Part number, brand name or description	One- or two-part	Primer	Primer dry time	Minimum installation temperature, degrees Fahrenheit	Minimum drive-away time with dual air bags	Lap shear at drive-away	Ultimate cure time	Lap shear at ultimate cure	Recommended uses, additional comments from company representatives
Sommer & Maca Industries www.somaca.com	PowrBond One-Hour, No. 121-4002	One	Glass: Universal One-Step primer No. 121-4006 and No. 121-1001 glass prep Glass and pinchweld: No. 121-2001.	One-Step: 10-plus minutes Other primers: 5-plus minutes at 73 F and 50 percent relative humidity	0 F	1 hour above 0 F	450 psi with air bags	Less than 24 hours at 70 F and 50 percent relative humidity	600 psi	Newest product provides 1-hour drive-away time above 0 F. Meets FMVSS No. 212 and No. 208. Lynx approved. Product liability insurance. User Guide contains drive-away charts, installation instructions and cross-brand technical data.
	PowrBond, regular viscosity cartridge, No. 121-7449	One	Glass: Universal One-Step primer No. 121-4006 and No. 121-1001 glass prep Glass and pinchweld: No. 121-2001.	One-Step: 10-plus minutes Other primers: 5-plus minutes at 73 F and 50 percent relative humidity	41 F	6 hours, depending on temperature and humidity	150 psi with air bags	24 hours at 70 F and 50 percent relative humidity	800 psi	Regular viscosity passed FMVSS No. 212 and meets No. 208. Lynx approved. Product liability insurance. User Guide contains drive-away charts, installation instructions and cross-brand technical comparative data. Drive-away charts available at www.somaca.com.
	PowrBond, high viscosity cartridge, No. 121-7349	One	Glass: Universal One-Step primer No. 121-4006 and No. 121-1001 glass prep Glass and pinchweld: No. 121-2001.	One-Step: 10-plus minutes Other primers: 5-plus minutes at 73 F and 50 percent relative humidity	41 F	3 hours, depending on temperature and humidity	150 psi with air bags	Less than 24 hours at 70 F and 50 percent relative humidity	800 psi	High viscosity meets FMVSS No. 212 at 35 miles per hour and meets No. 208. Lynx approved. Product liability insurance. User Guide contains drive-away charts, installation instructions and cross-brand technical comparative data.
	PowrBond, heated, high modulus No. 121-4001	One	Glass: Universal One-Step primer No. 121-4006 and No. 121-1001 glass prep Glass and pinchweld: No. 121-2001.	One-Step: 10-plus minutes Other primers: 5-plus minutes at 73 F and 50 percent relative humidity	10 F	2 hours, depending on temperature and humidity	150 psi with air bags	Less than 24 hours at 70 F and 50 percent relative humidity	650 psi	Meets FMVSS No. 212 and No. 208. Lynx approved. Product liability insurance. User Guide contains drive-away charts, installation instructions and cross-brand technical comparative data.
	PowrBond Quik, high modulus, low-conductive No. 121-7500	One	Glass: Universal One-Step primer No. 121-4006 and No. 121-1001 glass prep Glass and pinchweld: No. 121-2001.	One-Step: 10-plus minutes Other primers: 5-plus minutes at 73 F and 50 percent relative humidity	41 F	2 hours, depending on temperature and humidity	150 psi with air bags	Less than 24 hours at 70 F and 50 percent relative humidity	600 psi	Popular product for fast start of curing. Working time is 10 minutes; meets FMVSS No. 212 and No. 208. Lynx approved. Product liability insurance. User Guide contains drive-away charts, installation instructions and cross-brand technical comparative data.
3M www.3m.com	3M Auto Glass Urethane—HMNC PN08667-310ml Cartridge	One	3M Single-Step Primer PN08681-125ml bottle PN08682-30ml bottle PN08708-7ml applicator.	10 minutes at 70 F, 50 percent relative humidity	40 F	Not specified	250 psi	72 hours at 70 F, 50 percent relative humidity	> 500 psi	High modulus/non-conductive product specifically designed to be used with later model European vehicles and/or vehicles with glass-embedded telematics.
	3M Fast Cure Auto Glass Urethane PN08690 - 310ml Cartridge PN08689 - 450ml FlexPack PN08566 - 600ml FlexPack	One	3M Single-Step Primer PN08681-125ml bottle PN08682-30ml bottle PN08708-7ml applicator.	10 minutes at 70 F, 50 percent relative humidity	40 F	Not specified	250 psi	48 hours at 70 F, 50 percent relative humidity	> 500 psi	Fastest curing cold-applied 3M auto glass urethane. GM Approved, exceeding OEM strength requirements.
	3M Auto Glass Urethane—MV PN08693 - 310ml Cartridge PN08695 - 450ml FlexPack PN08564 - 600ml FlexPack	One	3M Single-Step Primer PN08681 - 125ml bottle PN08682 - 30ml bottle PN08708 - 7ml applicator.	10 minutes at 70 F, 50 percent relative humidity	40 F	Not specified	250 psi	72 hours at 70 F, 50 percent relative humidity	> 500 psi	Medium viscosity auto glass urethane, appropriate for most vehicle makes/models.