

LOCTITE®

Loctite® Instant Adhesives

***INSTANT SOLUTIONS** for Your
Assembly Challenges*



INSTANT
solutions™ 

INSTANT
solutions



TOTAL SOLUTIONS

Loctite® Instant Adhesives are the most diverse line of instant adhesives available, providing you with fast assembly solutions for a variety of materials, including plastics, elastomers and metals.

Combined with our process capabilities and technical support, you can rely on Henkel to be your total solutions provider from start to finish.

BONDING SOLUTIONS *Faster. Stronger. Superior.*

The most complete line of instant adhesives in the industry is now even better with faster and more consistent cure times, greater surface versatility, tougher performance, improved shelf life and a new bottle that's easier to use and improves dispense accuracy.

PG. 3-10

PROCESS SOLUTIONS

Henkel offers a wide range of primers and accelerators to increase adhesion on difficult-to-bond substrates and to increase cure speeds. In addition, Henkel offers a complete line of semi and fully automated dispensing and curing equipment to optimize your assembly process.

PG.11-13

TECHNICAL SOLUTIONS

Henkel's technical services are unparalleled in the industry. From your design and product development to the final manufacturing process, Henkel personnel and test facilities provide a wealth of expertise for your instant bonding challenges.

PG. 14

Make no mistake about it, when it comes to instant adhesives, Henkel is your total solutions provider.

TRY OUR INSTANT SOLUTIONS FOR YOURSELF!

INNOVATIVE SOLUTIONS

NEW

Toughened

Loctite® 435™ Prism® Instant Adhesive

- New Clear Rubber Toughened
- Surface Insensitive

Loctite® 438™ Prism® Instant Adhesive

- New Black Rubber Toughened
- Surface Insensitive

IMPROVED

General Purpose

Loctite® 401™, 431™, 454™ Prism® Instant Adhesives

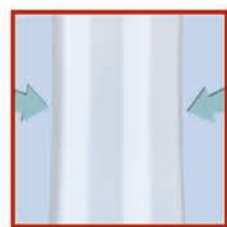
- Improved Fixture Speed and Stability

Low Odor, Low Bloom

Loctite® 403™, 408™, 460™ Prism® Instant Adhesives

- Improved Fixture Speed, Bond Strength and Stability

**NEW
LOCTITE®
BOTTLE**



Highly flexible package provides flow control and ease of use



New nozzle for optimal dispensing accuracy and control



Positive seal cap – seals with a click

FASTER SOLUTIONS

for high speed assembly



GENERAL PURPOSE

Loctite® 406™
Prism® Instant Adhesive

- Low viscosity
- Color: Clear

Loctite® 401™
Prism® Instant Adhesive

- Medium viscosity
- Color: Clear

Loctite® 431™
Prism® Instant Adhesive

- High viscosity
- Color: Clear

Loctite® 454™
Prism® Instant Adhesive

- Gel
- For vertical and overhead surfaces and/or larger gaps
- Color: Clear

TOP FEATURES

- Improved fixture speed
- Particularly suited for bonding a wide variety of materials, including metals, plastics and elastomers
- For porous substrates such as paper, leather, cork and fabric
- For acidic surfaces such as wood and chromate plated parts
- Bonds most plastics
- For elastomers and rubbers, including EPDM, NBR, SBR, Nitrile
- For difficult-to-bond materials: PE, PP, PTFE, thermoplastic rubbers or silicone rubbers when combined with a Loctite® Polyolefin Primer

LIGHT CURING

Loctite® 4306™
Flashcure® Light Cure Adhesive

- Low viscosity
- Color: Light amber, faint green

Loctite® 4307™
Flashcure® Light Cure Adhesive

- High viscosity
- Color: Light amber, faint green

TOP FEATURES

- Extremely fast cure with UV/Visible light
- Good cosmetic appearance
- Fluorescent for inspection purposes
- Cures in shadowed areas
- Eliminates need for accelerators
- Good adhesion to plastics, elastomers and metals
- ISO 10993 Biocompatible



APPLICATIONS

- Synthetic rubber feet to ABS housing
- Absorbing material to steel sheet
- Safety rubber pads to aluminum ladder steps
- PVC to paper for packaging materials
- Rubber seals
- Braided sleeve to rubber heater hose
- Plastic housing base to fire extinguisher bottle
- Aluminum potentiometer scale to painted steel control box
- Small bearings into plastic/metal housings
- Tacking strain gauges in position
- Abrasive tips to machine tools



APPLICATIONS

- PVC tube to ABS connector
- PC windows to ABS housing
- Logos and plastic parts in the cosmetic industry
- Polyurethane foam to PVC plastics
- Wide variety of medical devices



Loctite® 7700 Hand Held Light Curing System. pg. 12

STRONGER SOLUTIONS

for challenging environments



TOUGHENED

TOP FEATURES

Loctite® 380™
Black Max® Instant Adhesive

- Low viscosity
- Color: Black

Loctite® 410™
Prism® Instant Adhesive

- High viscosity
- Color: Black

Loctite® 426™
Prism® Instant Adhesive

- Gel ■ Color: Black
- Suitable for porous surfaces and vertical or overhead applications

NEW Loctite® 435™
Prism® Instant Adhesive

- Low viscosity
- Color: Clear

NEW Loctite® 438™
Prism® Instant Adhesive

- Low viscosity
- Color: Black

- Excellent peel, impact and shear strength
- Excellent resistance in humid and/or chemical environments
- Designed to bond plastics, elastomers and metals
- Surface insensitive for faster cure on a wide variety of materials
- Good impact, fracture toughness, peel and shear strength
- Good chemical, humidity, thermal and shock resistant
- Designed to bond plastics, elastomers and metals

HIGH TEMPERATURE

TOP FEATURES

Loctite® 4203™
Prism® Instant Adhesive

- Low viscosity
- Color: Clear

Loctite® 4204™
Prism® Instant Adhesive

- Medium viscosity
- Color: Clear

Loctite® 4205™
Prism® Instant Adhesive

- Gel ■ Color: Clear
- Suitable for porous surfaces and vertical or overhead applications

- Excellent hot strength and heat aging capabilities
- Excellent resistance to impact and peel loads



APPLICATIONS

- Rubber tire to ABS wheel on model car
- Rubber tube to rubber fitting
- Ferrite magnets to plastic and metal housing
- Loudspeaker parts
- Tacking o-rings in metal grooved enclosures
- Aluminum to EPDM
- Steel to epoxy composite
- Rubber to rubber
- Rubber to metal gaskets
- Metal to metal
- Plastic to plastic



APPLICATIONS

- E-cores
- Steel cover plates in transformers
- Plastic or metal housings of electric motors
- Disk drives



SUPERIOR SOLUTIONS

for demanding applications



LOW ODOR, LOW BLOOM

TOP FEATURES

Loctite® 408™
Prism® Instant Adhesive

- Low viscosity
- Color: Clear

Loctite® 460™
Prism® Instant Adhesive

- Medium viscosity
- Color: Clear

Loctite® 403™
Prism® Instant Adhesive

- High viscosity
- Color: Clear

Loctite® 455™
Prism® Instant Adhesive

- Gel
- Color: Clear
- Suitable for porous surfaces and vertical or overhead applications

- Low odor for improved work environment
- Low blooming for improved cosmetic appearance
- Improved fixture speed on metals and plastics
- For porous and absorbent substrates and acidic surfaces

FLEXIBLE

TOP FEATURES

Loctite® 4851™
Prism® Instant Adhesive

- Medium viscosity
- Color: Clear

Loctite® 4861™
Prism® Instant Adhesive

- High viscosity
- Color: Clear

- Specifically designed for bonding delicate, soft or flexible substrates
- Ensures flexibility even through the bond line
- Suitable for porous and absorbent substrates
- ISO 10993 Biocompatible



APPLICATIONS

- Connector plug in stainless steel sensor housing
- ABS inner part on wooden body of a fountain pen
- Clear plastic display systems
- Housing components of electrical appliances



APPLICATIONS

- Flexible rubber profile to painted steel refrigerator door
- Flexible gaskets and seals
- Loudspeaker parts
- Flexible tubing or balloons in medical devices



Needle tip adapters used on adhesive bottles, pg. 12

PRODUCT SELECTOR CHART

PRIMARY FEATURE	PRODUCT	SUBSTRATE						
		Plastics	Elastomers	Metals	Porous Surfaces	Acidic Surfaces	Polyolefins	
Faster Solutions for High Speed Assembly	General Purpose Surface Insensitive Low Viscosity, Wicking Grade	Loctite® 406™ Prism® Instant Adhesive	G	VG	VG	NR	VG	GPR
	Medium Viscosity, Close Fitting Parts	Loctite® 401™ Prism® Instant Adhesive	VG	VG	VG	G	VG	GPR
	High Viscosity Gap Filling	Loctite® 431™ Prism® Instant Adhesive	VG	VG	G	G	VG	GPR
	Non-Running Gel, Vertical or Porous Surfaces	Loctite® 454™ Prism® Instant Adhesive	VG	VG	VG	VG	VG	GPR
	Light Cure Low Viscosity, Close Fitting Parts, ISO 10993 Compliant	Loctite® 4306™ Flashcure® Light Cure Adhesive	G	G	G	NR	G	GPR
	High Viscosity, Gap Filling, ISO 10993 Compliant	Loctite® 4307™ Flashcure® Light Cure Adhesive	G	G	G	G	G	GPR
Stronger Solutions for Challenging Environments	Toughened Medium Viscosity, Close Fitting Parts	Loctite® 380™ Black Max® Instant Adhesive	G	VG	VG	NR	G ¹	GPR
	High Viscosity, Gap Filling	Loctite® 410™ Prism® Instant Adhesive	G	VG	VG	G	G ¹	GPR
	Non-Running Gel, Vertical or Porous Surfaces	Loctite® 426™ Prism® Instant Adhesive	G	G	G	VG	G	GPR
	Toughened Surface Insensitive Clear, Medium Viscosity for Close Fitting Parts	Loctite® 435™ Prism® Instant Adhesive	VG	G	G	NR	VG	GPR
	Black, Medium Viscosity for Close Fitting Parts	Loctite® 438™ Prism® Instant Adhesive	VG	G	VG	NR	VG	GPR
	High Temperature Medium Viscosity, Close Fitting Parts	Loctite® 4203™ Prism® Instant Adhesive	G	G	G	NR	G	GPR
Superior Solutions for Demanding Applications	Low Odor/ Low Bloom Surface Insensitive Non-Running Gel, Vertical or Porous Surfaces	Loctite® 455™ Prism® Instant Adhesive	G	VG	G	VG	G	GPR
	Medium Viscosity, Close Fitting Parts	Loctite® 460™ Prism® Instant Adhesive	G	VG	G	NR	VG	GPR
	High Viscosity, Gap Filling	Loctite® 403™ Prism® Instant Adhesive	G	VG	G	G	VG	GPR
	Low Viscosity, Wicking Grade	Loctite® 408™ Prism® Instant Adhesive	G	VG	G	NR	VG	GPR
	Flexible Medium Viscosity, Close Fitting Parts	Loctite® 4851™ Prism® Instant Adhesive	G	G	G	G	VG	GPR
	High Viscosity, Gap Filling	Loctite® 4861™ Prism® Instant Adhesive	G	G	G	G	VG	GPR

The above information is presented as a guideline only. Henkel recommends evaluating the selected product in your application to determine suitability.

LEGEND

G = Good **VG** = Very Good **GPR** = Good in Combination with Loctite® 770™ Prism® Primer **NR** = Not Recommended

¹ Data generated using grit blasted steel except where noted

² Full Cure = 24 hours without UV/VIS exposure, with UV/VIS exposure see technical data sheets

³ Data generated using Polycarbonate

⁴ Accelerator required

			TYPICAL PROPERTIES					
ITEM NUMBER	Container	Color	GAP (inches)	Viscosity (cP)	Shear Strength (PSI) ¹	Temp. Range	Fixture Speed ²	
40604 40640 40661	3 g tube 20 g bottle 1 lb. bottle	Clear	0.004	20	3,200	-65°F to 180°F	15 sec.	
40104 40140 40161	3 g tube 20 g bottle 1 lb. bottle	Clear	0.005	110	3,200	-65°F to 180°F	15 sec.	
41254 41255 41256	3 g tube 20 g bottle 1 lb. bottle	Clear	0.008	1,000	2,300	-65°F to 180°F	15 sec.	
45404 21925 45440 45474 45478	3 g tube 10 g syringe 20 g tube 200 g tube 300 g cartridge	Clear	0.010	Gel	3,200	-65°F to 180°F	15 sec.	
37439 37442	1 oz. bottle 1 lb. bottle	Clear/Pale Green/ Fluorescent	0.004	20	2,000 ³	-65°F to 180°F	<5 sec.	
37441 37443	1 oz. bottle 1 lb. bottle	Clear/Pale Green/ Fluorescent	0.008	900	2,000 ³	-65°F to 180°F	<5 sec.	
38004 38050 38061	3 g tube 20 g bottle 1 lb. bottle	Black	0.006	300	3,750	-65°F to 225°F	90 sec.	
41004 41045 41061	3 g tube 20 g bottle 1 lb. bottle	Black	0.008	3,500	3,200	-65°F to 225°F	90 sec.	
21921 18398 17451 17529	10 g syringe 20 g tube 200 g tube 300 g cartridge	Black	0.010	Gel	3,000	-65°F to 210°F	20 sec.	
41005 40994 40995	3 g tube 20 g bottle 1 lb. bottle	Clear	0.005	200	2,700	-65°F to 240°F	30 sec.	
41006 40997 40996	3g tube 20 g bottle 1 lb. bottle	Black	0.005	200	2,800	-65°F to 240°F	30 sec.	
28026 28027	20 g bottle 1 lb. bottle	Clear	0.006	375	2,200	-65°F to 250°F	20 sec.	
26324 26325	20 g bottle 1 lb. bottle	Clear	0.008	4,000	2,000	-65°F to 250°F	25 sec.	
28028 28029 28030	20 g tube 200 g tube 300 g cartridge	Clear	0.010	Gel	2,300	-65°F to 250°F	20 sec.	
22309 17421	10 g syringe 200 g tube	Clear	0.010	Gel	2,600	-65°F to 160°F	50 sec.	
46004 46040 46061	3 g tube 20 g bottle 1 lb. bottle	Clear	0.004	45	2,600	-65°F to 160°F	50 sec.	
40304 40340 40361	3 g tube 20 g bottle 1 lb. bottle	Clear	0.008	1,000	2,600	-65°F to 160°F	50 sec.	
40840 40861	20 g bottle 1 lb. bottle	Clear	0.002	5	2,600	-65°F to 160°F	50 sec.	
37732 37733	20 g bottle 1 lb. bottle	Clear	0.006	400	1,900	-65°F to 212°F	15 sec.	
37708 37701	20 g bottle 1 lb. bottle	Clear	0.008	4,000	2,000	-65°F to 212°F	15 sec.	

PROCESS SOLUTIONS




DISPENSING & CURING EQUIPMENT

From manually operated devices to fully automated systems, Henkel offers a complete line of Loctite® brand dispensing and light curing equipment which can easily be integrated into your manufacturing process. Selection of a Loctite® brand system is based on the product being used, viscosity, package size, and process requirements. For more information on our complete equipment offering, visit our equipment website at www.equipment.loctite.com or call 1-800-LOCTITE in the U.S. or 1-800-263-5043 in Canada to speak with a technical representative.


MODULAR DISPENSE SYSTEMS

Henkel offers a complete line of controllers, reservoirs and dispense valves allowing you to create a custom dispensing system to meet your specific needs and manufacturing goals.





Reservoir Controllers

PRODUCT	Item Number	Pressure Regulation	Package Types & Sizes	Viscosity Range	Low Level Sensing	
INTEGRATED RESERVOIR CONTROLLERS – Space saving and economical, combined controller and reservoir for valve dispensing.						
	Loctite® Integrated Semi-Automatic Dispenser	97010	0 to 15 psi	1 lb. bottle 2 kg bottle 200 g squeeze tube	0-3,000 cP	No
		97020				
		97007	0 to 100 psi		>3,000 cP	No
		97017				Yes

Hand Held Valves

PRODUCT	Item Number	Type	Viscosity Range	Dispense Patterns	Stroke Adjustment	Actuation	
LOW VISCOSITY CYANOACRYLATE APPLICATOR							
	Loctite® LV Hand Held Applicator	97130	Pneumatic	0-10,000 cP	Drop, Dot, Bead	Yes	Foot




Mounted Valves

PRODUCT	Item Number	Type	Viscosity Range	Dispense Patterns	Used to Dispense	Stroke Adjustment	Suck-Back	
HIGH PRECISION VALVES								
	Loctite® Stationary Applicator Valve	97113	High Precision	Low to Medium	Drop, Dot, Bead	Gel Instant Adhesives, Instant Adhesives, Retaining Compounds, Threadlockers	Yes	Yes
		97114						
	Loctite® Micro Needle Valve	98084	High Precision	Low to Medium	Drop, Dot, Bead, Microdots	Light Cure/Acrylics	Yes	No
HIGH PERFORMANCE DIAPHRAGM VALVES								
	Loctite® Light Cure Dispense Valve	98009	High Performance Diaphragm	Low to Medium	Drop, Dot, Bead	Light Cure/Acrylics, Retaining Compounds, Threadlockers	Yes	No
	Loctite® Cyanoacrylate Dispense Valve	98013	High Performance Diaphragm	Low to Medium	Drop, Dot, Bead, Microdots	Instant Adhesives, Retaining Compounds, Threadlockers	Yes	No




COMPLETE DISPENSE SYSTEM


These Loctite® brand dispense systems are ready for immediate operation and offer the manufacturing flexibility and reliability you're looking for.

PRODUCT	Item Number	Dispense Patterns	Package Types & Sizes	Viscosity Range	
VOLUMETRIC BOTTLE DISPENSERS – <i>Dispense adhesive directly from product bottle with no reservoirs required.</i>					
	Loctite® Benchtop Peristaltic Dispenser	98548	Dots, Drops, Beads	Any	0 to 5,000 cP
PRESSURE-TIME BOTTLE DISPENSE SYSTEMS – <i>Equipped with all components needed to dispense a wide range of products in a variety of adhesive bottle sizes.</i>					
	Loctite® Bond-A-Matic® 3000 Dispenser 0-15 psi	982719	Dots, Drops, Beads	1 lb. bottle 2 kg bottle	0-3,000 cP
	Loctite® Bond-A-Matic® 3000 Dispenser 0-100 psi	982722		200 g squeeze tube	>3,000 cP
	Loctite® Shot Miser™ Dispense System	98116	Dots, Drops, Beads	1 lb. bottle	0-80,000 cP

LIGHT CURE SOLUTIONS

Henkel offers the widest selection of light curing equipment available from any one company on the market today. Our Loctite® brand ensures you have the most innovative and dependable systems for all your light curing adhesive applications.

PRODUCT	Item Number	Lamp Type	
LED CURING DEVICES – <i>High powered and portable for light cure adhesives, providing effective spot curing solutions for both manual or integrated automatic systems.</i>			
	Loctite® 7700 Hand Held Light Source	98591	LED

PRODUCT	Item Number	Lamp Type	
ENCLOSED CHAMBER AND FLOOD SYSTEMS – <i>This system is ideal for batch processing. UV and alternate visible light bulb options are available.</i>			
	Loctite® ZETA® 7411-S UV Flood System	98413	400 watt Metal Halide



DISPENSE TIPS

Henkel offers a comprehensive line of Loctite® brand dispense tips which include high precision stainless steel, tapered polyethylene, and flexible polypropylene tips. All feature a positive locking helical thread design to ensure the tip will stay intact during the toughest applications. For your less critical applications, we offer more economical general purpose tips that still provide reliable and consistent dispensing shot after shot.

www.equipment.loctite.com

PROCESS SOLUTIONS



When your application involves difficult-to-bond substrates or requires increased cure speeds, Henkel offers a full line of primers and accelerators to provide the solutions you require.

Surface Primers

Improve adhesion on difficult-to-bond substrates

PRODUCT	Base	Features	On-Part Life
Loctite® 770™ Prism® Primer	n-heptane	<ul style="list-style-type: none"> Adhesion promoter Especially for polyolefins such as PE and PP Suitable for PTFE and thermoplastic elastomers Long on-part life Fluorescent under UV light / black light 	≤8 hours
Loctite® 793™ Prism® Primer	propylene glycol ether, n-butoxy propanol and water	<ul style="list-style-type: none"> Adhesion promoter Especially for polyolefins such as PE and PP Suitable for PTFE and thermoplastic elastomers Non-flammable 	≤2 hours
Loctite® 7951™ Prism® Primer	perfluorocarbon and chlorobenzotrifluoride	<ul style="list-style-type: none"> Adhesion promoter Especially for polyolefins such as PE and PP Suitable for PTFE and thermoplastic elastomers Non-flammable and non-combustible 	≤8 hours

Accelerators

Increase cure speed of Loctite® Instant Adhesives

PRODUCT	Base	Features	On-Part Life
Loctite® 7452™ Tak Pak® Accelerator	acetone	<ul style="list-style-type: none"> Provides fast cure when post-applied Excellent for cosmetic applications, for clear and transparent adhesive beads or fillets Suitable for securing wires or coils to PCBs 	1 minute
Loctite® 7109™ Tak Pak® II Accelerator	perfluorocarbon	<ul style="list-style-type: none"> Provides fast cure when post-applied Excellent for cosmetic applications, for clear and transparent adhesive beads or fillets Non-flammable and non-combustible 	1 minute
Loctite® 712™ Tak Pak® Accelerator	isopropanol	<ul style="list-style-type: none"> Provides fast cure when post-applied Excellent for cosmetic application, for clear and transparent adhesive beads or fillets Suitable for securing wires or coils to PCBs 	1 minute
Loctite® 7113™ Accelerator	n-heptane	<ul style="list-style-type: none"> Provides fast cure when post-applied Excellent for cosmetic applications, for clear and transparent adhesive beads or fillets Suitable for loudspeaker assembly bonding and coil to ferrite magnet bonding Long on-part life 	≤24 hours

Clean-up Solvent

PRODUCT	Features
Loctite® 768™ X-NMS™	<ul style="list-style-type: none"> Loctite® 768™ X-NMS™ quickly and safely dissolves cured cyanoacrylate-based adhesives

TECHNICAL SOLUTIONS

Henkel is in the business of solving customers' problems. When customers buy Loctite® brand instant adhesives, they get more than a product – they get a partner who will work side by side with them to find innovative solutions to their manufacturing problems.

Rapidly emerging, innovative processes and materials mandate an unprecedented breadth and depth of engineering savvy. Not every company can provide the equipment and engineering staff necessary to compete in today's marketplace. Henkel's Engineering Services understands the necessity of partnering with manufacturers and sharing this expertise with the industry.

From design and product development to simulated testing of the manufacturing process and dispensing trials, Henkel brings a wealth of expertise and experience to its customers. In a design-through-assembly partnership, no one adds value like Henkel.

ENGINEERING SERVICES

- Process Consultations
- Customer Teardowns
- Custom Equipment
- Customer Line Surveys
- Material Properties Testing
- Adhesive Performance
- Surface Analysis
- Process Optimization
- Equipment Support

To access these and other Henkel Engineering Services, contact our Adhesive and Sealant Specialists by calling 1-800-LOCTITE (562-8483) in the U.S. and 1-800-263-5043 in Canada.





Henkel – Your partner worldwide

Henkel can serve as your one-stop supplier, providing adhesives and sealants in all technologies and dispensing and curing equipment for any application with an unparalleled level of knowledge, innovation, and quality, as well as application diversity, reliability, and customer support.

Our approach is one of flexibility – enabling us to adapt a solution in order to support your specific goals. We continuously invest in research and development so that we can meet, and in many cases, anticipate our customer's needs and goals.

Contact us:

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Engineering Adhesives
1001 Trout Brook Crossing
Rocky Hill, Connecticut 06067
Tel: 860.571.5100
Fax: 860.571.5465
Customer Service: 1.800.LOCTITE

In addition, our extensive network of global technical centers and sales personnel worldwide provides you with unrivaled assistance when you need it.

So, when you choose Henkel, you get a partner who will work with you to find cost-effective solutions to all your industrial challenges. From design and product development through manufacturing process simulations, no one adds more value to your business than Henkel.

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