



## Thread Sealing

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### WANGDEX

Wang Daeng Industrial Supplies Co.,Ltd.  
116/98 Moo3 T.Bowin A.Sriracha Chonburi 20230  
Tel: (038) 337 838-9, Mobile 081-564-8315

### WHY USE A LOCTITE® THREAD SEALANT?

LOCTITE® Thread Sealants prevent leakage of gasses and liquids. Designed for low- and high-pressure applications, they fill the space between threaded parts and provide an instant, low-pressure seal. When fully cured they seal to the burst pressure of most pipe systems.

### LOCTITE® SEALANTS ARE MUCH SUPERIOR TO TRADITIONAL SEALANT TYPES:

- Solvent-based sealing compounds: Shrink during cure as solvents evaporate. Fittings must be re-torqued to minimize voids. They lock the assembly by a combination of friction and deformation.
- PTFE tape: Lubricates in off direction, allowing fittings to loosen under dynamic loads resulting in loss of clamping force and leakage. Dynamic loads may accelerate creep, causing leakage over time. The lubricating effect of PTFE frequently results in over-tightening of fasteners, adding stress or causing breakage of parts. Application requires good professional skills to avoid stressing fittings or castings.

### ADVANTAGES OF LOCTITE® THREAD SEALANTS AS COMPARED TO TRADITIONAL SEALANT TYPES:

- Single-component – clean and easy to apply
- Do not creep, shrink or block systems
- Can be used on any size of pipe fitting
- Replace all types of tape and paste sealants
- The seal resists vibration and shock loads
- Products are available with potable water and gas approvals
- Protect mated threaded areas against corrosion and galling

Henkel Adhesive and Sealant Product Specialists are available to assist you with new product designs, or to help you re-engineer an existing application for improved performance and cost savings. They can also set up testing of your parts at the Henkel Customer Engineering Center. For application assistance, call 1-800-LOCTITE (562-8483); within Canada, call 1-800-263-5043; or, contact us through the web at [www.henkelna.com/loctite](http://www.henkelna.com/loctite).

**STRAIGHT FROM** *The Source*

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## Thread Sealing

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Thread Sealing

### Old Way: Pastes, Tapes & Dopes



### Better Way: Loctite® Thread Sealants



- Complete contact between threads, 100% seal
- Will not creep, shrink, shred or block systems
- Easy disassembly
- Prevent corrosion

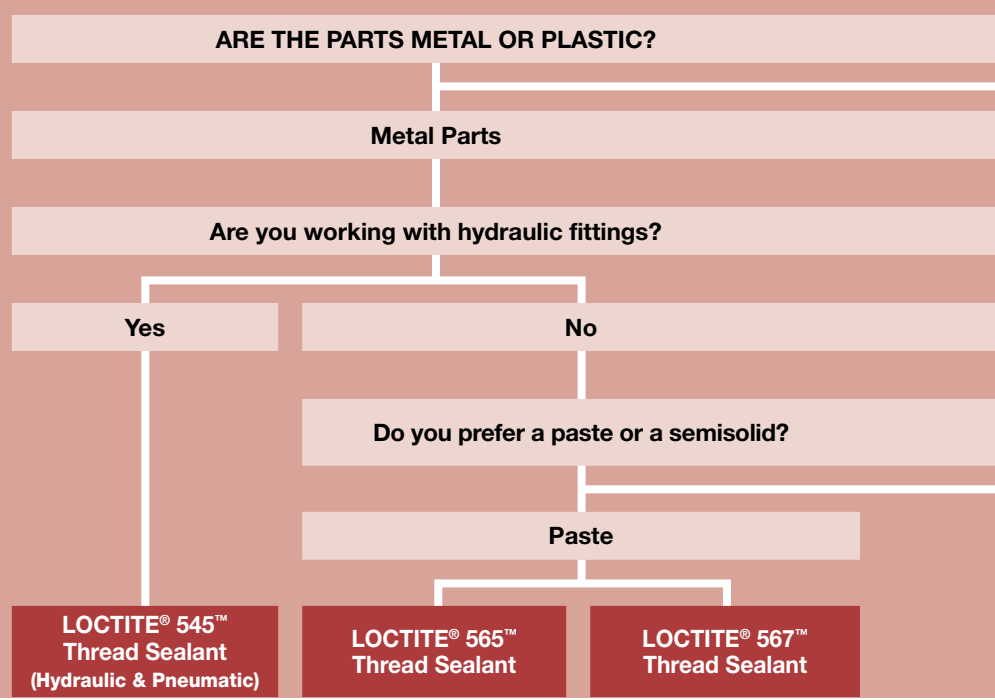
# Thread Sealants



## Your Application

- Prevent leaks
- Single component – quick and easy to apply
- Can be used on any size pipe fitting and seal to the burst strength of most piping systems
- Prevent thread corrosion
- Seal and secure metal pipes and fittings, filling the space between threaded metal parts and hardening to prevent leakage
- Designed for high- and low-pressure applications
- Controlled strength for ease of disassembly

## Solution



	LOCTITE® 545™ Thread Sealant (Hydraulic & Pneumatic)	LOCTITE® 565™ Thread Sealant	LOCTITE® 567™ Thread Sealant
<b>Chemistry</b>	Anaerobic	Anaerobic	Anaerobic
<b>Color</b>	Purple	White	White
<b>Viscosity (cP)</b>	14,000	300,000	540,000
<b>Pressure Resistance (psi)</b>	10,000	10,000	10,000
<b>Cure Time (hours)</b>	24 hours	24 hours	24 hours
<b>Temperature Resistance</b>	-65°F to 300°F	-65°F to 300°F	-65°F to 400°F
<b>Recommended Primer</b>	7088™, 7649™ or 7471™	7088™, 7649™ or 7471™	7088™, 7649™ or 7471™

## Product Description

### LOCTITE® 545™ Thread Sealant

Recommended for fine threaded fittings as used in hydraulic and pneumatic installations and small fittings in general.

**ABS Approved.**  
**CFIA Listed.**

P/N	Package Size
54505	5 ml capsule
32429	10 ml bottle
54531	50 ml bottle
54541	250 ml bottle

### LOCTITE® 565™ Thread Sealant

A general-purpose instant sealant for tapered and straight/ tapered fittings.

**CSA 3319-81 and 3319-01.**  
**UL MH007(N).**

**NSF/ANSI 61 Certified.**  
**ULC-Canada Approved.**  
**CFIA Listed.**

P/N	Package Size
56507	6 ml tube
56531	50 ml tube
56541	250 ml tube
56571	300 ml cartridge
56543	1 liter bottle
56566	10 liter bottle

### LOCTITE® 567™ Thread Sealant

A general-purpose instant sealant for tapered and straight/ tapered fittings. Rated to 400°F.

**UL MH007(N).**  
**NSF/ANSI 61 Certified.**  
**ULC-Canada Approved.**  
**CFIA Listed.**

P/N	Package Size
56707	6 ml tube
56747	50 ml tube
56765	250 ml tube
33241	350 ml brush-top can
56790	1 liter bottle



Plastic

Semisolid

LOCTITE® 561™ Pipe Sealant with PTFE

LOCTITE® No More Leaks™

Anaerobic	Non-Anaerobic
White	White
Semisolid	90,000 to 110,000
10,000	5,000
24 hours	24 hours
-65°F to 300°F	-65°F to 300°F
7088™, 7649™ or 7471™	N/A

**LOCTITE® 561™ Pipe Sealant with PTFE**

Semisolid stick form is convenient, portable and less messy. Formulated for fast, reliable curing on metal, tapered pipe threads and fittings. Provides high pressure sealing and withstands continuous operating temperatures of -65°F to 300°F (-54°C to 150°C). **NSF/ANSI 61 Certified.**

**P/N Package Size**  
37127 19 g stick

**LOCTITE® No More Leaks™**

Recommended for use on threaded plastic fittings carrying hot or cold water, i.e., industrial and agricultural plastic water pipe systems, or drainage systems.

**P/N Package Size**  
1537780 16 oz. brush-top can

**WHEN SHOULD A LOCTITE® PRIMER BE USED?**

LOCTITE® anaerobic thread sealants cure (1) in the absence of air, and (2) in the presence of metal ions. When assembling inactive metal parts – which are low in metal ions – use of a LOCTITE® Primer is strongly recommended to ensure proper performance.

HELPFUL HINTS

INACTIVE METALS (PRIMERS RECOMMENDED)		ACTIVE METALS (PRIMERS OPTIONAL)
PLATED PARTS	SILVER	IRON
ANODIZED ALUMINUM (ALODINE®, IRIDITE™)	GOLD	PLAIN STEEL
TITANIUM	ZINC	COPPER
STAINLESS STEEL	PURE	BRASS
GALVANIZED STEEL	ALUMINUM†	BRONZE
MAGNETITE STEEL	CADMIUM	MANGANESE
INCONEL™	MAGNESIUM	MONEL™
NICKEL	NATURAL OR CHEMICAL BLACK OXIDE	KOVAR™

Primers also help speed up cure rates. Fixture time can be reduced from several hours to minutes, allowing faster assembly and production throughput.

LOCTITE® primers are also recommended when assembling metal parts that are cold, have large gaps or deep threads.

**NOTE:** Using a primer will decrease ultimate bond strength.



**THREAD SEALING PREP STEPS**

- Clean parts with LOCTITE® ODC-Free Cleaner & Degreaser before applying thread sealant.
- If the parts were in contact with aqueous washing solutions or cutting fluids, which leave a protective layer on the surface, wash with hot water before use.
- If the thread sealant will be applied below 40°F, pretreat parts with LOCTITE® 7649™ Primer N™.

HELPFUL HINTS

† Pure aluminum is an inactive metal. Alloys of aluminum containing copper are considered active metals.

# Thread Sealants



LOCTITE® Liquid Anaerobic Thread Sealant Properties Chart

	LOCTITE® PRODUCT	ITEM NUMBER	PACKAGE TYPE & SIZE	TYPICAL USE	COLOR & APPEARANCE	VISCOSITY (cP)	TEMPERATURE RANGE	PRESSURE RESISTANCE (psi)	RECOMMENDED PRIMER	AGENCY APPROVALS
GENERAL-PURPOSE	561™	37127	19 g stick	General-purpose, portable, overhead	White Paste	Semisolid	-65°F to 300°F	10,000	7088™, 7649™ or 7471™	UL Classified for U.S., CFIA Listed, NSF/ANSI 61
	565™	56507 56531 56541 56571 56543 56566	6 ml tube 50 ml tube 250 ml tube 300 ml cartridge 1 liter bottle 10 liter bottle	Controlled strength	White	300,000	-65°F to 300°F	10,000	7088™, 7649™ or 7471™	CSA International, UL Classified for U.S., NSF/ANSI 61, CFIA Listed, ULC Classified for Canada
	577™	21456 21457	50 ml tube 250 ml tube	Medium strength, coarse threads	Yellow	24,000/80,000 Thixotropic	-65°F to 300°F	10,000	7088™, 7649™ or 7471™	N/A
HIGH TEMPERATURE	567™	56707 56747 56765 33241 56790	6 ml tube 50 ml tube 250 ml tube 350 ml brush-top can 1 liter bottle	For stainless steel and all other metal fittings	White	540,000	-65°F to 400°F	10,000	7088™, 7649™ or 7471™	UL Classified for U.S., ABS, CFIA Listed, NSF/ANSI 61, ULC Classified for Canada
	5770™	1138284 1138281	50 ml tube 250 ml tube	High temperature	Off-White Paste	Paste	-65°F to 530°F	N/A	7088™, 7649™ or 7471™	N/A
	592™	59214 59231 59241 59243	6 ml tube 50 ml tube 250 ml tube 1 liter bottle	Medium strength	White	350,000	-65°F to 400°F	10,000	NF™	CFIA Listed
HYDRAULIC & PNEUMATIC	545™	54505 32429 54531 54541	0.5 ml capsule 10 ml bottle 50 ml bottle 250 ml bottle	Pneumatic hydraulic sealant, no fillers	Purple	14,000	-65°F to 300°F	10,000	7088™, 7649™ or 7471™	ABS, CFIA Listed
	5452™ FAST CURE	1265769 1265770	50 ml tube 250 ml tube	Pneumatic hydraulic sealant, no fillers	Purple	29,000/200,000 Thixotropic	-65°F to 300°F	10,000	7088™, 7649™ or 7471™	N/A
	569™	56931 56941	50 ml bottle 250 ml bottle	Original hydraulic sealant	Brown	400	-65°F to 300°F	10,000	7088™, 7649™ or 7471™	CFIA Listed
LOW HALOGEN	580™	58031	50 ml tube	Low halogen, low sulfur, PTFE-free	White	600,000	-65°F to 300°F	10,000	N/A	N/A
	5772™	25524	50 ml bottle	Low halogen, low sulfur, medium strength, fast cure	Yellow	7,500	-65°F to 300°F	10,000	N/A	N/A
	5802™	1313319	50 ml tube	Low halogen, high purity, medium strength, high viscosity	Off-White	Paste	-65°F to 300°F	10,000	N/A	N/A
CHEMICAL RESISTANCE	554™	25882 55441	10 ml bottle 250 ml bottle	Refrigerant sealant, high strength	Red	2,500	-65°F to 300°F	10,000	7088™, 7649™ or 7471™	CFIA Listed

ITEMS IN RED = Source's PICK or NEW

= Indicates Worldwide Availability

## LOCTITE® Liquid Non-Aerobic Thread Sealant Properties Chart

	LOCTITE® PRODUCT	ITEM NUMBER	PACKAGE TYPE & SIZE	TYPICAL USE	COLOR AND APPEARANCE	VISCOSITY (cP)	TEMPERATURE RANGE	PRESSURE RESISTANCE (psi)	RECOMMENDED PRIMER	AGENCY APPROVALS
SOLVENT-BASED	THREAD SEALANT WITH PTFE	1527514	1 pint brush can	General-purpose, metal pipes, added lubricity	White Paste	50,000 to 60,000	-65°F to 300°F	5,000	N/A	CFIA Listed
	PIPE JOINT COMPOUND	1534294	1 pint brush can	General-purpose, non-shredding, chemical resistant	Black Paste	35,000 to 45,000	-65°F to 400°F	5,000	N/A	N/A
	NO MORE LEAKS™	1537780	16 oz. brush-top can	Plastic pipes, easy disassembly	White Paste	90,000 to 110,000	-65°F to 300°F	5,000	N/A	CFIA Listed
NON-CURING	55™ PIPE SEALING CORD	35082	5,700"	Metal and plastic compatible, allows post-adjustment	White Coated Cord	N/A	Up to 300°F	10,000	N/A	NSF-61
	THREAD SEAL TAPE WITH PTFE	39904	1/2" x 520" x 0.003"	General-purpose, oxygen service compatible	White Tape	N/A	Up to 500°F	Pressure Rating for Pipe	N/A	N/A

## LOCTITE® Activator Properties Chart

	LOCTITE® PRODUCT	ITEM	PACKAGE TYPE & SIZE	COLOR	VISCOSITY (cP)	BASE	ON-PART LIFE	DRY TIME	APPLICATION	AGENCY APPROVALS
ACTIVATORS	7088™ PRIMER	1069258	17 g stick	Teal	Semisolid	No solvent	30 days	None	Anaerobics	CFIA Listed
	7090™ PRIMER	19368 12695	1 fl. oz. bottle 1 liter bottle	Dark Blue	17.5	No solvent	1 hour	None	Anaerobics	N/A
	7471™ PRIMER T™	19267 22477 19268	1.75 fl. oz. bottle 4.5 oz. net wt. aerosol can 1 gallon can	Amber	2	Acetone/ Isopropanol	7 days	30 to 70 seconds	Anaerobics	MIL-S-22473E for existing designs, ASTM D-5363 for new designs, CFIA Listed
	7649™ PRIMER N™	19269 21347 21348 19266	1.75 fl. oz. glass bottle 25 g net wt. aerosol can 4.5 oz. net wt. aerosol can 1 gallon can	Clear/ Green	2	Acetone	30 days	30 to 70 seconds	Anaerobics	MIL-S-22473E for existing designs, ASTM D-5363 for new designs, NSF/ANSI 61, NSF P1, CFIA Listed

🌐 = Indicates Worldwide Availability










# Thread Sealant Equipment


## YOUR EQUIPMENT *Source*

For more details, see the *LOCTITE® Equipment Sourcebook, LT-3669*, or visit us on the web for additional information, diagrams, products and our full line of equipment at [www.equipment.loctite.com](http://www.equipment.loctite.com).









LOCTITE® PRODUCT		ITEM NUMBER	USED TO DISPENSE	PACKAGE TYPES & SIZES	VISCOSITY RANGE	PACKAGE TYPES & SIZES	CONSUMABLES – DISPENSE ACCESSORIES
<b>HANDHELD APPLICATORS</b>	<b>BOTTLE DISPENSING</b>						
	 <b>50 ML AND 250 ML HAND PUMPS</b>	98414 97001	Retaining Compounds, Threadlockers	50 ml bottle 250 ml bottle	Low to Medium	Manual	Dispense Tips and Accessories – Pages 176-177
<b>HANDHELD APPLICATORS</b>	<b>TUBE DISPENSING</b>						
	 <b>50 ML-F TUBE SQUEEZE DISPENSER</b>	1083845	Any 50 ml tube	50 ml tubes	Low to High	Manual	N/A








LOCTITE® PRODUCT		ITEM NUMBER	PRESSURE REGULATION	USED TO DISPENSE	PACKAGE TYPES & SIZES	VISCOSITY RANGE	LOW LEVEL SENSING	CONSUMABLES – DISPENSE ACCESSORIES	
<b>CONTROLLERS &amp; RESERVOIRS</b>	<b>INTEGRATED RESERVOIR CONTROLLERS</b>								
		<b>INTEGRATED SEMI-AUTOMATIC DISPENSER</b>	1390322	0 to 15 psi	Gel Adhesives, Instant Adhesives, Light Cure/Acrylics, Retaining Compounds, Threadlockers	250 ml bottle 1 lb. bottle 1 liter bottle 2 kg bottle 200 g squeeze tube	Low to Medium	Yes	Dispense Tips and Accessories – Pages 176-177
			1390321	0 to 100 psi				Medium to High	
		<b>RESERVOIRS</b>							
		<b>BOND-A-MATIC® 3000 RESERVOIR</b>	982720	0 to 15 psi	Gel Adhesives, Instant Adhesives, Light Cure/Acrylics, Retaining Compounds, Threadlockers	250 ml bottle 1 lb. bottle 1 liter bottle 2 kg bottle 200 g squeeze tube	Low to Medium	Yes	Dispense Tips and Accessories – Pages 176-177
			982726					No	
			982723	0 to 100 psi			Medium to High	Yes	
	982727		No						
		<b>SHOT MISER™ RESERVOIR</b>	98090	0 to 100 psi	Instant Adhesives, Light Cure/Acrylics, Retaining Compounds, Threadlockers	250 ml bottle 1 lb. bottle 200 g squeeze tube	Low to High	No	
		<b>4 LITER GRAVITY FEED RESERVOIR</b>	982880	N/A	Retaining Compounds, Threadlockers	Direct Fill	Low to Medium	Yes	
<b>DISPENSE SYSTEMS</b>	<b>MULTI-FUNCTION CONTROLLER</b>								
		<b>LOCTITE® SPRAY VALVE CONTROLLER</b>	1406023	0 to 100 psi	Primers, Accelerators, Activators	250 ml bottle 1 lb. bottle 1 liter bottle 2 kg bottle 200 g squeeze tube	Low	No	Use with LOCTITE® Spray Valve 98520

LOCTITE® PRODUCT		ITEM NUMBER	DISPENSE PATTERNS	USED TO DISPENSE	PACKAGE TYPES & SIZES	VISCOSITY RANGE	VACUUM SUCK-BACK	CONSUMABLES – DISPENSE ACCESSORIES
<b>DISPENSE SYSTEMS</b>	<b>PINCH TUBE APPLICATORS</b>							
		<b>DIAL-A-SEAL® APPLICATORS</b>	998400	N/A	Pipe Sealants	50 ml tube 250 ml tube 1 liter bottle	Medium to High	N/A

ITEMS IN RED = Source's PICK or NEW

LOCTITE® PRODUCT		ITEM NUMBER	DISPENSE PATTERNS	USED TO DISPENSE	PACKAGE TYPES & SIZES	VISCOSITY RANGE	VACUUM SUCK-BACK	CONSUMABLES – DISPENSE ACCESSORIES
DISPENSE SYSTEMS	<b>COMPLETE PRESSURE-TIME BOTTLE DISPENSE SYSTEM</b>							
		BOND-A-MATIC® 3000 DISPENSER 0-15 PSI	982719	Dot, Drop, Bead	Gel Adhesives, Instant Adhesives, Light Cure/Acrylics, Retaining Compounds, Threadlockers	200 ml bottle 1 lb. bottle 1 liter bottle 2 kg bottle 200 g squeeze tube	Low	N/A
	BOND-A-MATIC® 3000 DISPENSER 0-100 PSI	982722				Medium to High		

LOCTITE® PRODUCT		ITEM NUMBER	TYPE	VISCOSITY RANGE	DISPENSE PATTERNS	USED TO DISPENSE	STROKE ADJUSTMENT	ACTUATION	CONSUMABLES – DISPENSE ACCESSORIES	
HANDHELD VALVES	<b>GENERAL-PURPOSE APPLICATORS</b>									
		LV HAND-HELD APPLICATOR	97130	Pneumatic	Low	Drop, Dot, Bead	Instant Adhesives, Retaining Compounds, Threadlockers	Yes	Foot	Dispense Tips and Accessories – Pages 176-177
	<b>GENERAL-PURPOSE APPLICATORS</b>									
		MANUAL HAND-HELD APPLICATOR	97111	Manual	Low to Medium	Drop, Dot, Bead	Light Cure/Acrylics, Retaining Compounds, Threadlockers	Yes	Finger	Dispense Tips and Accessories – Pages 176-177
		PNEUMATIC HAND-HELD APPLICATOR	97112	Pneumatic	Low to Medium	Drop, Dot, Bead	Light Cure/Acrylics, Retaining Compounds, Threadlockers	Yes	Foot	
	PNEUMATIC HAND-HELD APPLICATOR	97116	Pneumatic	Low to Medium	Drop, Dot, Bead	Light Cure/Acrylics, Retaining Compounds, Threadlockers	Yes	Finger		
<b>GENERAL-PURPOSE APPLICATORS</b>										
	VARI-DROP™ APPLICATORS	97131 97132	Pinch Tube	Low to Medium	Drop, Dot, Bead	Instant Adhesives, Retaining Compounds, Threadlockers	Yes	Finger	Dispense Tips and Accessories – Pages 176-177	

LOCTITE® PRODUCT		ITEM NUMBER	TYPE	VISCOSITY RANGE	DISPENSE PATTERNS	USED TO DISPENSE	STROKE ADJUSTMENT	SUCK-BACK	CONSUMABLES – DISPENSE ACCESSORIES	
VALVES & PUMPS	<b>HIGH PRECISION VALVES</b>									
		LOCTITE® SPRAY VALVE	98520	Spray Valve	Low	Spray	Primers, Accelerators, Activators	Yes	No	989268 – 0.014" Nozzle Kit 989269 – 0.028" Nozzle Kit
	<b>HIGH PRECISION VALVES</b>									
		STATIONARY APPLICATOR VALVE	97113 97114	High Precision	Low to Medium	Drop, Dot, Bead	Gel Instant Adhesives, Instant Adhesives, Retaining Compounds, Threadlockers	Yes	Yes	Dispense Tips and Accessories – Pages 176-177
	<b>HIGH PERFORMANCE DIAPHRAGM VALVES</b>									
		LIGHT CURE DISPENSE VALVE	98009	High Performance Diaphragm	Low to Medium	Drop, Dot, Bead	Instant Adhesives, Retaining Compounds, Threadlockers	Yes	No	Dispense Tips and Accessories – Pages 176-177
		CYANOACRYLATE DISPENSE VALVE	98013	High Performance Diaphragm	Low to Medium	Drop, Dot, Bead, Microdot	Instant Adhesives, Retaining Compounds, Threadlockers	Yes	No	
	<b>GENERAL DUTY DIAPHRAGM VALVES</b>									
		DIAPHRAGM VALVE	97135 97136	General Duty Diaphragm	0 to 2,500 cP 2,500 to 5,000 cP	Drop, Dot, Bead	Light Cure/Acrylics, Instant Adhesives, Retaining Compounds, Threadlockers	No	No	Dispense Tips and Accessories – Pages 176-177
	<b>HIGH VISCOSITY FLUID AND PASTE VALVES</b>									
	POPPET VALVE	986300	High Viscosity Fluid and Paste	Medium to High	Drop, Bead	Anaerobic Gasketing, Retaining Compounds, Threadlockers	Yes	Yes	Dispense Tips and Accessories – Pages 176-177	
<b>POSITIVE DISPLACEMENT PUMP</b>										
	POSITIVE DISPLACEMENT PUMP	983330	Positive Displacement Pump	Low to Medium	Drop	Retaining Compounds, Threadlockers, Any single-component, non-moisture-curing, low- to medium-viscosity fluid (<100,000 cP)	Yes	No	Dispense Tips and Accessories – Pages 176-177	

For more Loctite® branded equipment, go to page 165. Can't find what you're looking for? Visit [www.equipment.loctite.com](http://www.equipment.loctite.com).