

# Defence Industries Product Guide



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Recommended Stock Holding

Technology	Grade	Product Description	Colour	Pack size	Nato Stock Number
Threadlocking	222	Loctite® 222 low strength	Purple	50ml	8030-99-762-3278
Threadlocking	243	Loctite® 243 medium strength oil tolerant	Blue	50ml	8030-99-834-1892
Threadlocking	243	Loctite® 243 medium strength oil tolerant	Blue	250ml	8030-99-253-6699
Threadlocking	268	Loctite® 268 high strength threadlocking stick	Red	19g	8030-99-261-5682
Threadlocking	270	Loctite® 270 high strength oil tolerant	Green	10ml	8030-99-224-8707
Threadlocking	270	Loctite® 270 high strength oil tolerant	Green	50ml	8030-99-224-9318
Threadlocking	290	Loctite® 290 medium strength post application	Green	10ml	8030-99-224-8995
Threadlocking	290	Loctite® 290 medium strength post application	Green	50ml	8030-99-224-9317
Thread Sealing	542	Loctite® 542 medium strength for fine threads	Blue	50ml	8030-12-172-5459
Thread Sealing	572	Loctite® 572 low strength pipe sealant	White	50ml	8030-99-225-0249
Thread Sealing	577	Loctite® 577 medium strength pipe sealant	Yellow	50ml	8030-99-257-3495
Gasketing	574	Loctite® 574 medium strength for machined flanges	Orange	50ml	5330-99-225-3058
Gasketing	5900	Loctite® 5900 oil resistant flexible sealant	Black	50ml	8040-99-773-4080
Gasketing	5900	Loctite® 5900 oil resistant flexible sealant	Black	310ml	8030-01-487-5273
Retaining	641	Loctite® 641 medium strength	Yellow	50ml	8040-99-225-1152
Retaining	648	Loctite® 648 high strength high temperature	Green	50ml	8040-99-225-1714
Instant Adhesives	3090	Loctite® 3090 2K instant adhesive	Clear	10g	8040-99-379-2076
Instant Adhesives	406	Loctite® 406 plastic & rubber	Clear	20g	8040-99-729-3250
Instant Adhesives	O Ring Kit	O Ring kit – Loctite® 406, O ring cord, knife & jig	~	kit	5330-99-978-4778
Structural Bonding	330	Loctite® 330 Multibond kit	Clear	50ml	8040-99-745-4691
Structural Bonding	Double Bubble	Loctite® Double Bubble fast epoxy sachets	Clear	50 x 3g	8040-00-092-2816
Cleaner	7061	Loctite® 7061 solvent cleaner	Clear	400ml	6850-99-701-4574
Cleaner	7200	Loctiite® 7200 Gasket Remover	Clear	400ml	6850-99-225-6907
Cleaner	7070	Loctite® 7070 cleaner - low flammability	Clear	400ml	6850-99-075-6660
Expedient Repair	3463	Loctite® 3643 Metal Magic Steel™ Stick	Grey	114g	8030-99-613-6437
Expedient-Repair	5070	Loctite® 5070 Pipe Repair	Yellow	2” x 6’	4730-12-371-0891
Lubricant	8040	Loctite® 8040 Freeze & Release	Amber	400ml	8040-99-301-2979
Lubricant	8065	Loctite® 8065 Copper Antiseize stick	Copper	20g	8030-99-553-4101
Activators	7649	Loctite® 7649 anaerobic activator	Clear	150ml	8030-99-256-3436

Products by Technology

- ▲ Breakaway Torque
- Tensile Strength
- ◆ Compressive Shear Strength
- Tensile Shear

Technology	Grade	Product Description	Pack size	Colour	Typical Strength Mean Value	Gap Fill mm	Max Operating Temp °C	Nato stock Number	Specification	Submarine Approval	Store Code H1 - Army 0425 - Navy	Grade
Threadlocking	932	Loctite® 932 very low strength	50ml	Brown	1.5 Nm ▲	na	150	8030-99-224-9389	DTD 5629/1		H1 / 0425	932
Threadlocking	221	Loctite® 221 low strength	10ml	Purple	8.5 Nm ▲	na	150	8030-99-224-8425	DTD 5630/1	BLI	H1 / 0425	221
Threadlocking	221	Loctite® 221 low strength	50ml	Purple	8.5 Nm ▲	na	150	8030-12-160-0570	DTD 5361/1	BLI	H1 / 0425	221
Threadlocking	222	Loctite® 222 low strength	50ml	Purple	6 Nm ▲	na	150	8030-99-762-3278	AFS 1737A	BLI	H1 / 0425	222
Threadlocking	225	Loctite® 225 low strength high viscosity	50ml	Purple	6 Nm ▲	na	150	8030-99-224-7305	DTD 5630/3	G	H1 / 0425	225
Threadlocking	241	Loctite® 241 medium strength	10ml	Blue	11.5 Nm ▲	na	150	8030-99-224-8261	DTD5631/1	LI	H1 / 0425	241
Threadlocking	241	Loctite® 241 medium strength	50ml	Blue	11.5 Nm ▲	na	150	8030-99-224-8992	DTD5631/1	LI	H1 / 0425	241
Threadlocking	242	Loctite® 242 medium strength	50ml	Blue	11.5 Nm ▲	na	150	8030-99-225-0248	AFS 1737A	BLI	H1	242
Threadlocking	243	Loctite® 243 medium strength oil tolerant	50ml	Blue	26 Nm ▲	na	180	8030-99-834-1892	AFS 1993	CI	H1	243
Threadlocking	243	Loctite® 243 medium strength oil tolerant	250ml	Blue	26 Nm ▲	na	180	8030-99-253-6699	AFS 1993	CI	H1	243
Threadlocking	245	Loctite® 245 medium strength high viscosity	50ml	Blue	13 Nm ▲	na	150	8030-99-224-8993	DTD 5631/4		H1 / 0425	245
Threadlocking	268	Loctite® 268 high strength threadlocking stick	19g	Red	17 Nm ▲	na	150	8030-99-261-5682			H1 / 0425	268
Threadlocking	270	Loctite® 270 high strength oil tolerant	10ml	Green	33 Nm ▲	na	180	8030-99-224-8707	DTD 5633/3	BLI	H1 / 0425	270
Threadlocking	270	Loctite® 270 high strength oil tolerant	50ml	Green	33 Nm ▲	na	180	8030-99-224-9318	DTD 5633/3	BLI	H1 / 0425	270
Threadlocking	275	Loctite® 275 high strength high viscosity	50ml	Green	25 Nm ▲	na	150	8030-99-227-7304	DTD 5633/4		H1 / 0425	275
Threadlocking	290	Loctite® 290 medium strength post application	10ml	Green	10 Nm ▲	na	150	8030-99-224-8995	DTD5633/1	BLI	H1 / 0425	290
Threadlocking	290	Loctite® 290 medium strength post application	50ml	Green	10 Nm ▲	na	150	8030-99-224-9317	DTD5633/1	BLI	H1 / 0425	290
Thread Sealing	542	Loctite® 542 medium strength for fine threads	50ml	Blue	15 Nm ▲	na	150	8030-12-172-5459	DTD 5631/3	BLI	H1 / 0425	542
Thread Sealing	561	Loctite® 561 low strength pipe sealant stick	19g	White	2 Nm ▲	na	150	8030-01-581-4600				561
Thread Sealing	572	Loctite® 572 slow cure low strength pipe sealant	50ml	White	7 Nm ▲	na	150	8030-99-225-0249	AFS 1374B	CI	H1 / 0425	572
Thread Sealing	577	Loctite® 577 fast cure medium strength pipe sealant	50ml	Amber	11 Nm ▲	na	150	8030-99-257-3495	AFS 1433B	G	H1 / 9AHY	577
Gasketing	518	Loctite® 518 medium strength for machined aluminium flanges	50ml	Red	7.5 N/mm² ●	0.3	150	8040-99-701-8040			H1	518
Gasketing	573	Loctite® 573 low strength for machined flanges	50ml	Green	1.3 N/mm² ●	0.1	150	5330-99-225-1979		CI	H1 / 0425	573
Gasketing	574	Loctite® 574 medium strength for machined flanges	50ml	Orange	8.5 N/mm² ●	0.25	150	5330-99-225-3058	AFS1628A	BLI	H1 / 0425	574
Gasketing	5900	Loctite® 5900 oil resistant flexible sealant – large gap fill	50ml	Black	1.2 N/mm² ●	3	200	8040-99-773-4080		G	H1	5900
Gasketing	5900	Loctite® 5900 oil resistant flexible sealant – large gap fill	310ml	Black	1.2 N/mm² ●	3	200	8030-01-487-5273		G	H1	5900
Gasketing	5922	Loctite® 5922 gasket dressing	60ml	Brown	~	~	~	8030-12-360-2787				5922
General Sealing	Superflex Black	Superflex Black silicone sealant	310ml	Black	1.2 N/mm² ●	6	250	8030-99-250-9999				Superflex Black
Retaining	601	Loctite® 601 high strength low viscosity	10ml	Green	> 15 N/mm² ◆	0.1	150	8040-99-224-8996	DTD5633/2	BLI	H1 / 0425	601
Retaining	601	Loctite® 601 high strength low viscosity	50ml	Green	> 15 N/mm² ◆	0.1	150	8040-99-224-9438	DTD5633/2	BLI	H1 / 0425	601
Retaining	620	Loctite® 620 high strength high temperature	250ml	Green	> 24 N/mm² ◆	0.2	230	8040-99-225-4168	AFS 1737A		H1	620
Retaining	635	Loctite® 635 very high strength – use with activator 7471	50ml	Green	> 25 N/mm² ◆	0.15	150	8040-99-225-1312	AFS 1872A			635
Retaining	638	Loctite® 638 very high strength	50ml	Green	> 25 N/mm² ◆	0.25	180	8040-99-792-7208	AFS 1737A	BLI	H1	638
Retaining	640	Loctite® 640 high strength high temperature slow cure	50ml	Green	22 N/mm² ◆	0.1	175	8040-99-224-8622	AFS 1131B			640
Retaining	641	Loctite® 641 medium strength	50ml	Yellow	> 6.5 N/mm² ◆	0.15	150	8040-99-225-1152	AFS 1737A	BLI	H1	641
Retaining	648	Loctite® 648 high strength high temperature	50ml	Green	> 25 N/mm² ◆	0.15	200	8040-99-225-1714	AFS 1433B	BLI	H1 / 0425	648

Products by Technology

- ▲ Breakaway Torque
- Tensile Strength
- ◆ Compressive Shear Strength
- Tensile Shear




Technology	Grade	Product Description	Pack size	Colour	Typical Strength Mean Value	Gap Fill mm	Max Operating Temp °C	Nato stock Number	Specification	Submarine Approval	Store Code H1 - Army 0425 - Navy	Grade
Instant Adhesives	3090	Loctite® 3090 2K instant adhesive – large gap fill	10g	Clear	23 N/mm² ■	5	80	8040-99-379-2076				3090
Instant Adhesives	382	Loctite® 382 7455 Tak Pak adhesive kit	20g	Clear	24 N/mm² ■	0.2	80	8040-99-852-8298				382
Instant Adhesives	406	Loctite® 406 plastic & rubber	20g	Clear	22 N/mm² ■	0.05	120	8040-99-729-3250	BS7969	BLI	H1	406
Instant Adhesives	4062	Loctite® 4062 plastic & rubber post application	20g	Clear	16 N/mm² ■	0.05	80	8040-99-840-1540				4062
Instant Adhesives	409	Loctite® 409 gel high temperature	20g	Clear	22 N/mm² ■	0.5	120	8040-99-755-3164		BLI	H1	409
Instant Adhesives	415	Loctite® 415 high viscosity for metals	20g	Clear	25 N/mm² ■	0.25	80	8040-99-225-2342	BS7969		H1 / 0425	415
Instant Adhesives	422	Loctite® 422 high viscosity for plastics & rubbers	20g	Clear	24 N/mm² ■	0.25	80	8040-99-225-2348	BS7969		H1	422
Instant Adhesives	454	Loctite® 454 general purpose gel high temperature	20g	Clear	24 N/mm² ■	0.25	120	8040-99-808-2532		BLI	H1	454
Instant Adhesives	480	Loctite® 480 toughened for rubber to metal	20g	Black	26 N/mm² ■	0.25	80	8040-99-301-2979		BLI	H1	480
Instant Adhesives	495	Loctite® 495 low viscosity	50g	Clear	19 N/mm² ■	0.1	80	8040-99-224-8503	BS7969		H1	495
Instant Adhesives	496	Loctite® 496 low viscosity for metals	20g	Clear	25 N/mm² ■	0.15	80	8040-99-224-6082	BS7969	BLI	H1 / 0425	496
Instant Adhesives	496	Loctite® 496 low viscosity for metals	100g	Clear	25 N/mm² ■	0.15	80	8040-99-224-1393	BS7969	BLI	H1 / 0425	496
Instant Adhesives	770	Loctite® 770 Primer – for difficult to bond plastic (Use with Loctite® 406)	10g	Clear	~	~	~	8040-99-869-0549			H1	770
Instant Adhesives	O Ring Kit	O Ring kit – Loctite® 406, O ring cord, knife & jig	kit	~	~	~	120	5330-99-978-4778				O Ring Kit
Structural Bonding	312	Loctite® 312 (Use with Activator 734)	50ml	Clear	14 N/mm² ■	0.05	120	8040-99-224-8947	AFS 1100B		H1 / 0425	312
Structural Bonding	317	Loctite® 317 (Use with Activator 734)	50ml	Clear	12 N/mm² ■	0.05	120	8040-99-224-8998	AFS 1476C		H1	317
Structural Bonding	326	Loctite® 326 (Use with Activator 7649)	50ml	Amber	20 N/mm² ■	0.5	120	8040-99-438-5637	AFS 1568A			326
Structural Bonding	330	Loctite® 330 Multibond kit – toughened adhesive	50ml	Clear	15 N/mm² ■	0.5	100	8040-99-745-4691	AFS 1568A		425	330
Structural Bonding	Double Bubble	Loctite® Double Bubble fast epoxy sachets	50 x 3g	Clear	9 N/mm² ■	1	100	8040-00-092-2816				Double Bubble
Structural Bonding	9220	Teroson 9220 High strength flexible adhesive	310ml	Black	4.4 N/mm² ■	3	100	8040-12-357-0400				9220
Structural Bonding	9225	Teroson 9225 SF Fast cure plastic repair	50ml	Grey	> 12 N/mm² ■	5	80	8040-99-729-4585				9225
Surface treatment	1200	Alocrom 1200 brush application	20kg	Yellow/orange	~	~	~	8030-99-727-2722				Alocrom 1200
Cleaner	7031	Loctite® 7031 Quick Clean – prior to using cyanoacrylate adhesives	150ml	Clear	~	~	~	6810-99-517-1893				7031
Cleaner	7061	Loctite® 7061 solvent cleaner, fast evaporation	400ml	Clear	~	~	~	6850-99-701-4574			H1 / 0425	7061
Cleaner	7200	Loctite® 7200 gasket remover	400ml	Clear	~	~	~	6850-99-225-6907			H1	7200
Cleaner	7070	Loctite® 7070 cleaner – low flammability, slow evaporation	400ml	Clear	~	~	~	6850-99-075-6660			H1	7070
Expedient Repair	Fe Rapid	Loctite® Fe Rapid Metal Filled Epoxy (syringe)	75g	Grey	15 N/mm² ■	5	100	8030-99-958-6106				Fe Rapid
Expedient Repair	3463	Loctite® 3643 Metal Magic Steel™ Stick	114g	Grey	>6 N/mm² ■	25+	120	8030-99-613-6437				3463
Expedient Repair	3478	Loctite® 3478 Metal Filled Epoxy (tub)	453g	Grey	38 N/mm² ■	6	120	8030-99-837-1237				3478
Expedient Repair	NMBG	No More Big Gaps – expanding foam	500ml	White	~	>50	80	8030-99-131-8308				NMBG
Expedient Repair	5070	Loctite® 5070 Pipe Repair	2” x 6’	Yellow	~	~	120	4730-12-371-0891				5070
Lubricant	8040	Loctite® 8040 Freeze & Release – for seized parts	400ml	Amber	~	~	~	9150-17-122-1573				8040
Lubricant	8065	Loctite® 8065 Copper Antiseize stick	20g	Copper	~	~	~	8030-99-553-4101				8065
Activators	734	Loctite® 734 anaerobic activator – use with 312/317	150ml	Amber	~	~	~	8040-99-869-0546	AFS 1100B		H1 / 0425	734
Activators	7471	Loctite® 7471 anaerobic activator – slow cure	150ml	Clear	~	~	~	8040-99-869-0548	AFS 2292	BLI	H1 / 0425	7471
Activators	7649	Loctite® 7649 anaerobic activator – fast cure	150ml	Clear	~	~	~	8030-99-256-3436		V(AERO) BLI (LIQ)	H1 / 0425	7649
Activators	7386	Loctite® 7386 toughened acrylic activator	500ml	Amber	~	~	~	8040-99-869-0545				7386
Activators	7455	Loctite® 7455 Tak Pak activator	150ml	Clear	~	~	~	8040-99-873-2291				7455



# Threadlocking Adhesives

What strength do you require?



	Low	Medium	High
	Loctite® 222	Loctite® 243	Loctite® 270
	Easy Disassembly	The Allrounder	Permanent
			
Size of thread (up to)	M8o	M8o	M8o
Functional strength after*	6 hours	2 hours	3 hours
Breakaway torque M10 bolts	6 Nm	26 Nm	33 Nm
Service temperature range	-55 to +150°C	-55 to +180°C	-55 to +180°C
Nato stock number	50ml – 8030-99-762-3278	50ml – 8030-99-834-1892 250ml – 8030-99-253-6699	50ml – 8030-99-224-8707 250ml – 8030-99-224-9318
Comments	<ul style="list-style-type: none"><li>• Use when low disassembly torque is required</li><li>• Slow curing – longer adjustment time</li></ul>	<ul style="list-style-type: none"><li>• General purpose</li><li>• Good performance even on plated and stainless steel fasteners</li><li>• Oil tolerant</li></ul>	<ul style="list-style-type: none"><li>• For permanent locking if regular removal for maintenance is not required</li><li>• Oil tolerant</li></ul>

## Technology Benefits

- Resist vibration loosening
- Threads are completely sealed eliminating fretting corrosion
- Clean and easy to apply
- Replace mechanical threadlocking devices – lower costs and inventory

\* Typical value at 22°C



For detailed information please refer to the Technical Datasheet or contact your Henkel Technical Service Team.

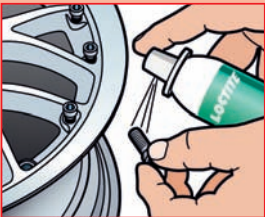
## Handy Hints      How to apply Loctite® 222, 243, 270

### 1 Preparation



**Cleaning**  
It is recommended to use Loctite® 7061 or Loctite® 7070 to degrease and clean surfaces prior to applying the adhesive.

**Activation**  
If cure speed is too slow due to passive metals or low temperature (below 5°C), use activator Loctite® 7471 or Loctite® 7649 (see cure speed vs. activator graph in the TDS).

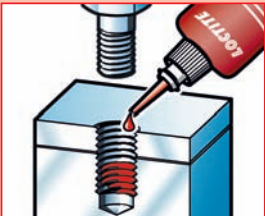


### 2 Application

Apply liquid threadlocker on the targeted area.



**Through hole:**  
Assemble bolt first and then apply threadlocker.



**Blind hole:**  
Apply into lower third of blind hole.



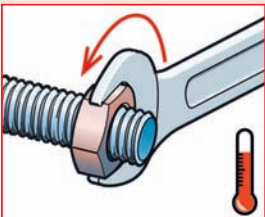
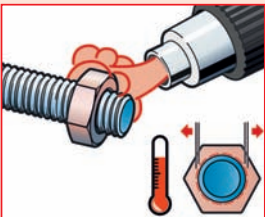
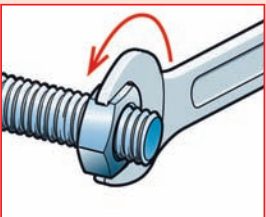
**Post assembly:**  
Assemble nut and bolt and dispense product at the edge of nut and bolt.

### 3 Assembly

- Assemble and tighten
- If several bolts are being assembled, torque them down to the correct value within the fixture time of the product

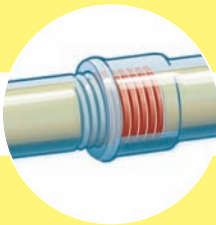
### 4 Disassembly

- Disassemble with standard hand tools
- If not possible, apply localised heat to approximately 250°C, disassemble while hot
- For corroded or seized parts use Loctite® 8040 Freeze & Release



# Thread Sealing

Are the threads coarse or fine?

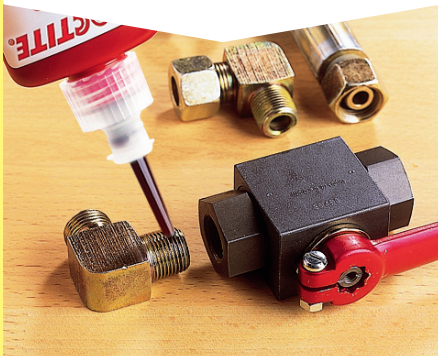


Solution

Fine

Loctite® 542

Fine threads



Coarse

Loctite® 572

Coarse threads



Loctite® 577

The Allrounder



Maximum pipe size	3/4"	3"	3"
Disassembly strength	Medium	Low	Medium
Instant low pressure seal	No	Yes	Yes
Service temperature range	-55 to +150°C	-55 to +150°C	-55 to +150°C
Nato stock number	50ml – 8030-99-172-5459	50ml – 8030-99-225-0249	50ml – 8030-99-257-3495
Comments	<ul style="list-style-type: none"><li>For fine threads in hydraulic, pneumatic and general fittings</li><li>Fast curing</li></ul>	<ul style="list-style-type: none"><li>Suitable for coarse metal threads</li><li>Ideal where slow cure is required for adjusting the alignment of fittings</li></ul>	<ul style="list-style-type: none"><li>General purpose</li><li>For overhead applications</li><li>Fast curing</li></ul>

## Technology Benefits

- Prevent leakage of gases and liquids
- Resist vibration and shock loads
- Clean and easy to apply
- Replace tapes and hemp & paste



For detailed information please refer to the Technical Datasheet or contact your Henkel Technical Service Team.

## Handy Hints

How to apply Loctite® 542, 572, 577

### 1 Preparation

#### Cleaning

It is recommended to use Loctite® 7061 or Loctite® 7070 to degrease and clean surfaces prior to applying the adhesive.

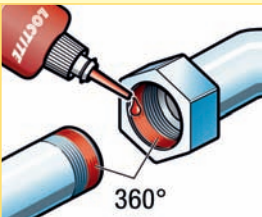


#### Activation

If cure speed is too slow due to passive metals or low temperature (below 5°C), use activator Loctite® 7471 or Loctite® 7649 (see cure speed vs. activator graph in TDS).

### 2 Application

- Apply a 360° bead to the leading male thread, leaving the first thread free
- For bigger threads, apply both on male and female thread



### 3 Assembly

Assemble fittings using wrench, tightening in accordance to manufacturers' recommendations.

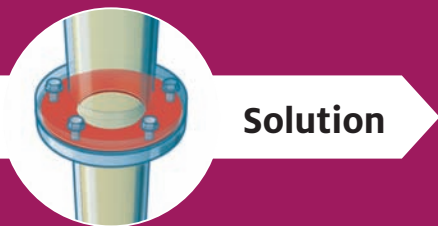
### 4 Disassembly

- Disassemble with standard hand tools. If not possible, apply localised heat to approximately 250°C, disassemble while hot
- For corroded or seized parts use Loctite® 8040 Freeze & Release






# Gasketing

Is your flange rigid or flexible?



Solution

Rigid		Flexible
Loctite® 573	Loctite® 574	Loctite® 5900
Metal	Metal	Metal, plastic or both
		
0.1mm	0.25mm	3mm
Excellent	Excellent	Excellent
Excellent	Excellent	Excellent
-55 to +150°C	-55 to +150°C	-55 to +200°C
50ml – 5330-99-225-1979	50ml – 5330-99-225-3058	50ml – 8040-99-773-4080 310ml – 8030-01-487-5273
<ul style="list-style-type: none"><li>• Ideal for sealing large, rigid metal flanges or flanges where assembly may take up to several hours</li></ul>	<ul style="list-style-type: none"><li>• Ideal for use on rigid metal parts, e.g. cast iron components and pump housings</li></ul>	<ul style="list-style-type: none"><li>• Thixotropic paste, black, excellent in engine oils</li></ul>

## Technology Benefits

- Prevent leakage and failure by filling all voids
- No need for re-torquing
- One product fits all shapes – low costs and inventory



For detailed information please refer to the Technical Datasheet or contact your Henkel Technical Service Team.

## Handy Hints    How to apply Loctite® 573, 574, 5900

### 1 Preparation

#### Cleaning

- Apply Loctite® 7200 on old gasketing adhesive and use a wood or plastic scraper to remove residues. Remove burrs
- It is recommended to use Loctite® 7061 or Loctite® 7070 to degrease and clean surfaces prior to applying the adhesive



#### Activation

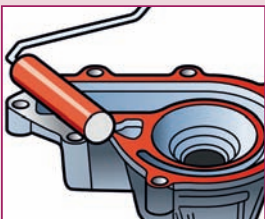
- If cure speed of Loctite® 573 or Loctite® 574 is too slow due to passive materials or low temperature (below 5°C) use activator Loctite® 7471 or Loctite® 7649 (see cure speed vs. activator graph in the TDS).
- Loctite® 5900 does not need an activator

### 2 Application

- Apply as a continuous closed bead onto one flange surface. Place the bead close to the inner rim of the flange and encircle all holes. Small scratches can be filled by the adhesive



- Loctite® 573 and Loctite® 574 can also be applied by roller onto large flanges



### 3 Assembly

Assemble flanges and tighten bolts as soon as possible.

### 4 Disassembly

- Disassemble bolts with standard hand tools
- Use lifting-screws, cast bosses or recesses to lift flanges apart
- For corroded or seized parts, use Loctite® 8040 Freeze & Release

# Retaining

What strength do you require?



Solution

	Medium	High	
	Loctite® 641	Loctite® 648	Loctite® 638
	Ideal for bearings	High temperature	Maximum strength
Diametrical clearance	Up to 0.1mm	Up to 0.15mm	Up to 0.25mm
Compressive shear strength	> 6.5 N/mm²	> 25 N/mm²	> 25 N/mm²
Handling strength after*	25 minutes	3 minutes	4 minutes
Service temperature range	-55 to +150°C	-55 to +200°C	-55 to +180°C
Nato stock number	50ml – 8040-99-225-1714	50ml – 8040-99-225-1152	50ml – 8040-99-792-7208
Comments	<ul style="list-style-type: none"><li>• Ideal for parts that need subsequent dismantling i.e. retention of bearings onto shafts and into housings</li></ul>	<ul style="list-style-type: none"><li>• Ideal for retaining close fitting cylindrical parts</li><li>• High temperature</li><li>• Oil tolerant</li></ul>	<ul style="list-style-type: none"><li>• Best resistance to dynamic, axial and radial loads</li><li>• Ideal for shafts, gears, pulleys and similar cylindrical parts</li><li>• Oil tolerant</li></ul>

## Technology Benefits

- Fill all voids to prevent loosening, corrosion and fretting
- Suitable for high loads even with existing design
- 100% contact – even stress distribution across the joint

\* Typical value at 22°C



For detailed information please refer to the Technical Datasheet or contact your Henkel Technical Service Team.

## Handy Hints    How to apply Loctite® 641, 648, 638

### 1 Preparation

#### Cleaning

- If required, use Loctite® 7200 for easier removal of residues in case of old retaining adhesive
- It is recommended to use Loctite® 7061 or Loctite® 7070 to degrease and clean surfaces prior to applying the adhesive



#### Activation

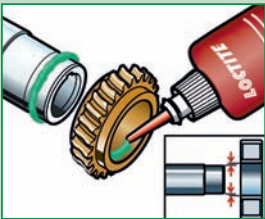
If cure speed is too slow due to passive metals or low temperature (below 5°C), use activator Loctite® 7471 or Loctite® 7649 (see cure speed vs. activator graph in the TDS).



### 2 Application

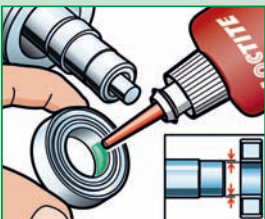
#### A. For slip fitted assemblies:

Apply adhesive around the leading edge of the male component and the inside of the female component and use rotating motion during assembly to ensure good coverage.



#### B. For press fitted assemblies:

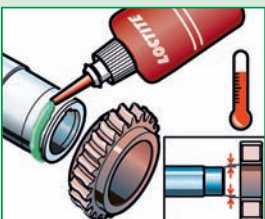
Apply adhesive thoroughly to both bond surfaces and assemble at high press on rates.



#### C. For shrink fitted assemblies:

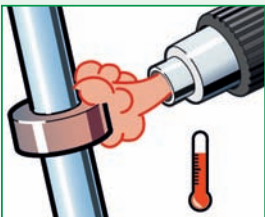
Apply the adhesive onto the pin, heat the collar to create sufficient clearance for free assembly.

For product selection contact your Henkel Technical Service Team.



### 3 Disassembly

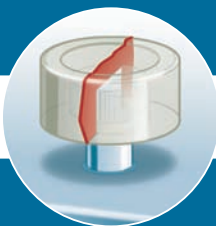
- Apply localised heat to approximately 250°C, disassemble while hot
- For corroded or seized parts, use Loctite® 8040 Freeze & Release





# Instant Adhesives

Do you need a non-drip / non-run product?



Solution

No

Loctite® 406

General purpose



Yes

Loctite® 454

Gel



Loctite® 3090

Gap filling



Maximum gap fill	0.05mm	0.15mm	5mm
Fixture time	2 - 10 seconds	5 - 10 seconds	90 - 120 seconds
Service temperature	120°C	120°C	80°C
Nato stock number	20g – 8040-99-729-3250	20g – 8040-99-808-2532	10g – 8040-99-379-2076
Comments	<ul style="list-style-type: none"><li>• Ideal for bonding plastics &amp; rubbers</li><li>• Use with Loctite® 770 Polyolefin Primer when bonding polypropylene, polyethylene or other difficult to bond plastics</li></ul>	<ul style="list-style-type: none"><li>• High viscosity gel</li><li>• For overhead or vertical surfaces</li></ul>	<ul style="list-style-type: none"><li>• Multi-purpose</li><li>• High gap filling (5mm)</li><li>• Professional repairs</li></ul>

## Technology Benefits

- Excellent adhesion on multiple substrates especially plastics and rubbers
- Very fast positioning and fixturing of parts
- Small parts bonding
- High temperature resistance



For detailed information please refer to the Technical Datasheet or contact your Henkel Technical Service Team.

## Handy Hints How to apply Loctite® 406, 454, 3090

### 1 Preparation

#### Cleaning

It is recommended to use Loctite® 7061 or 7070 to degrease and clean surfaces prior to applying the adhesive. (Refer to TDS)



#### Priming

To improve adhesion on difficult to bond plastic surfaces, apply Loctite® 770 to the bond area by brushing or dipping. Avoid applying excess primer. Allow the primer to dry.



#### Activation

If cure speed is too slow, use appropriate activator Loctite® 7455 (see cure speed vs. activator graph in the TDS). Apply activator to one bond surface by spray, brush or dipping (not to primed surfaces). Allow the activator to dry.



#### Mixing

Mixing with static mixer (Loctite® 3090): Mount static mixer and push some mixed product out. The static mixer will then dispense correctly mixed product.



### 2 Application

Apply adhesive by drop or bead to one of the bond surfaces (not to activated surfaces).



### 3 Assembly

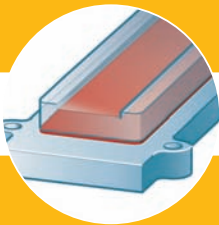
Assemble the parts immediately. The parts should be accurately located, as the short fixture time leaves little opportunity for adjustment. Bond should be held or clamped until the adhesive has fixtured.



**Hint:** If necessary excess product can be cured by activator Loctite® 7455. Spray or drop activator onto excess product (not necessary with Loctite® 3090).

# Structural Bonding

Do you need a flexible or rigid bond?



Solution

Flexible

Teroson 9220

Flexible



Rigid

Teroson 9225 SF

2 part



Loctite® 330 Multibond

General purpose



Maximum gap fill	3mm	5mm	0.5mm
Fixture time	15 minutes skin over	20 minutes	3 minutes
Typical shear strength	4.4 N/mm <sup>2</sup>	> 12N/mm <sup>2</sup>	15 N/mm <sup>2</sup>
Service temperature	100°C	80°C	100°C
Nato stock number	310ml – 8040-12-357-0400	50ml – 8040-99-729-4585	50ml kit – 8040-99-745-4691
Comments	<ul style="list-style-type: none"><li>• Black</li><li>• Flexible bond line</li><li>• High strength</li></ul>	<ul style="list-style-type: none"><li>• Gap filling</li><li>• Suitable for painted surfaces</li><li>• Slightly flexible</li></ul>	<ul style="list-style-type: none"><li>• Fast cure</li><li>• Easy to use – no mixing</li><li>• No dispensing gun required</li><li>• Toughened</li></ul>

## Technology Benefits

- Flexible to rigid structural bonding
- High strength
- Good chemical resistance
- Excellent adhesion on multiple substrates



For detailed information please refer to the Technical Datasheet or contact your Henkel Technical Service Team.

## Handy Hints

How to apply Teroson 9220, 9225, Loctite® 330 Multibond

### 1 Preparation

#### Cleaning

It is recommended to use Loctite® 7061 or Loctite® 7070 to degrease and clean surfaces prior to applying the adhesive. (Refer to TDS)



#### Activation

If cure speed is too slow, use appropriate activator Loctite® 7455 (see cure speed vs. activator graph in the TDS). Apply activator to one bond surface by spray, brush or dipping (not to primed surfaces). Allow the activator to dry.

### 2 Application

#### Teroson 9220

Apply product to one surface of the bonding area.

#### Teroson 9225

Before mounting the static mixer onto the cartridge, push out small amount of product to equalise pistons. Mount static mixer and push some mixed product out. The static mixer will then dispense correctly mixed product. Apply product after mixing to one surface of the bonding area.



#### Loctite® 330 Multibond

Apply activator Loctite® 7386 to one surface to be bonded and adhesive Loctite® 330 to the other surface.



### 3 Assembly

- Parts should be assembled immediately
- Keep the assembled parts from moving during curing
- The joint should be allowed to develop full strength before subjecting to any service loads

If a one-shot application is required use Loctite® Double Bubble fast epoxy sachets – Nato stock number 8040-00-092-2816



# Expedient Repair

What do you need to do?

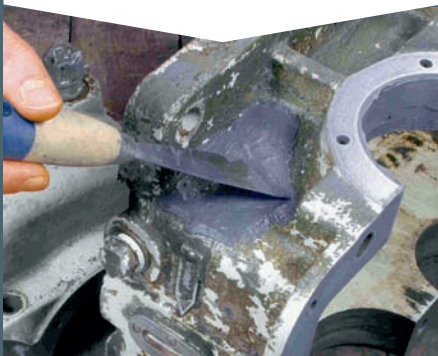


Solution

## Surface Repair

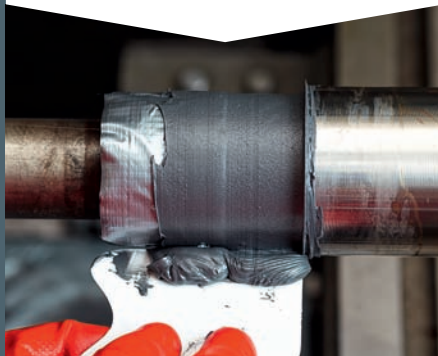
### Loctite® Fe Rapid

Metal filled epoxy



### Loctite® 3478

Superior Metal



## Fast repair or form a patch

### Loctite® 3463

Metal Magic Steel™ Stick



Fixture time	15 minutes	360 minutes	10 minutes
Typical shear strength	15 N/mm <sup>2</sup>	38 N/mm <sup>2</sup>	≥ 6 N/mm <sup>2</sup>
Service temperature	100°C	120°C	120°C
Nato stock number	75g – 8030-99-958-6106	453g – 8030-99-837-1237	114g – 8030-99-613-6437
Comments	<ul style="list-style-type: none"><li>• Rebuild worn surfaces</li><li>• High compressive strength</li><li>• Easy to use syringe</li><li>• Fast cure</li></ul>	<ul style="list-style-type: none"><li>• Rebuild worn shafts and surfaces</li><li>• High compressive strength</li><li>• Good chemical resistance</li><li>• Slow cure</li></ul>	<ul style="list-style-type: none"><li>• Mix in hands – no mixing board or spatula required</li><li>• High compressive strength</li><li>• Repairs broken casings and bridges gaps</li></ul>

## Technology Benefits

- Repair and rebuild worn metal parts
- No need to heat or weld
- Can be drilled, tapped or machined after cure



For detailed information  
please refer to the Technical  
Datasheet or contact your  
Henkel Technical Service Team.

## Handy Hints

## How to apply Loctite® Fe Rapid

### 1 Preparation

**Cleaning** It is recommended to use Loctite® 7061 or Loctite® 7070 to degrease and clean surfaces prior to applying the adhesive



**Mixing** Stir each component separately. Mix A and B components according to the specified mixing ratio by volume or weight. Thoroughly mix for up to two minutes until an even mix is achieved.

### 2 Application

- Apply the product to the working area with the spatula provided
- Prevent the repaired parts from moving during cure
- Full cure is achieved at room temperature after 72 hours; heating the part to 40°C will reduce the time span to 24 hours
- Due to heat generation during the curing process larger quantities tend to cure more rapidly



## How to apply Loctite® 3478 Superior Metal

### 1 Preparation

Machine damaged area of shaft to reduce the nominal diameter by minimum 3mm.



**Cleaning** It is recommended to use Loctite® 7061 or Loctite® 7070 to degrease and clean surfaces prior to applying the adhesive.

**Mixing** Stir each component separately. Mix A and B components according to the specified mixing ratio by volume or weight. Thoroughly mix for up to two minutes until an even mix is achieved.

### 2 Application

- Turn shaft and apply a thin layer of Loctite® 3478 Superior Metal. Build up product layer until there is an excess compared to the nominal shaft diameter
- After full cure, machine repaired area to the correct diameter

## How to apply Loctite® 3463 Metal Magic Steel™ Stick

### 1 Preparation

**Cleaning** Thoroughly clean and abrade surfaces. Finally clean with Loctite® 7061 or Loctite® 7070.



**Mixing** Cut required product quantity and then remove plastic film. Twist and knead until material is smooth and colour is consistent. Wear appropriate gloves.

### 2 Application

Firmly apply to bond area and form to desired shape. For smooth finish wipe over with a wet cloth.

Cleaners

What do you need to do?



Solution

Clean and degrease

Loctite® 7061

Fast evaporation



Loctite® 7070

Slow evaporation



Remove old gasketing compounds or carbon deposits

Loctite® 7200

Gasket Remover



Nato stock number

400ml – 6850-99-701-4574

Comments

- Solvent based (acetone) general parts cleaner
- Removes dirt, resins, lacquer, oils and greases
- Fast evaporation time

400ml – 6850-99-075-6660

- Solvent based general parts cleaner
- Safe to use on plastics and painted surfaces
- Very effective in removing oils and greases

400ml – 6850-99-225-6907

- Removes old gasketing compounds
- Dissolves carbon deposits
- Minimum scraping

**Note:**  
Loctite® 7200 will also attack painted surfaces and plastic parts.  
Loctite® 7200 will not remove oil and grease so parts should be degreased before using.

Handy Hints

How to apply Loctite® 7061, 7070

Application

- Treat surfaces to be cleaned by generously spraying with Loctite® 7061 or Loctite® 7070
- Wipe surface whilst still wet with a clean paper towel
- Repeat if necessary until contamination is removed
- Allow solvent to evaporate until surface is completely dry



**Note:**  
Loctite® 7061 can affect plastics and painted surfaces

How to apply Loctite® 7200

Application

- Before applying, protect painted surfaces as Loctite® 7200 may attack the paint
- Spray a heavy coat onto flange or surface. Wait 10 - 15 minutes for the gasket to soften (for silicone gaskets 30 minutes)
- Remove gasket with soft scraper and wipe flange clean
- Repeat procedure if necessary



Technology Benefits

- For various cleaning demands in the workshop



For detailed information  
please refer to the Technical  
Datasheet or contact your  
Henkel Technical Service Team.



# Lubricants

What part movements / loads are you dealing with?



Solution

Slow movements / high loads

Loctite® 8065

Copper Antiseize stick



Freeing corroded or seized parts

Loctite® 8040

Freeze & Release



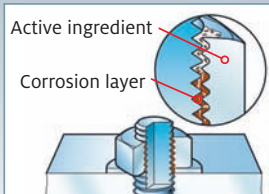
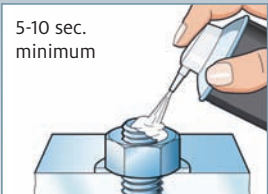
Base	Copper & Graphite	Mineral oil
Service temperature	-30 to +980°C	–
Nato stock number	8030-99-553-4101	9150-17-122-1573
Comments	<ul style="list-style-type: none"><li>• Protect threaded connections</li><li>• Prevent seizing and corrosion</li></ul>	<ul style="list-style-type: none"><li>• Releases corroded and seized components</li><li>• Shock freezing (-43°C) cracks the rust</li><li>• Wicks directly into the rust by capillary action</li></ul>

## Handy Hints      How to apply Loctite® 8065, 8040

### 1 Preparation

**Cleaning:** Surfaces should be free from oxides and lubricant residues. Use Loctite® 7061 to clean and degrease.

**Loctite® 8040 Freeze & Release:** Shake well before use. Spray onto parts from a distance of 10-15cm for 5 to 10 seconds. After 1 to 2 minutes disassemble. If necessary repeat procedure.



### 2 Application

**Loctite® 8065 Copper Antiseize Stick:** Twist stick to the amount required and apply sufficient product around the thread of the bolt.

# Training

Training is free of charge and is conducted on site, all training materials are provided.

## Content

- How to select the correct product
- How to use it correctly
- Review of common failure causes and prevention
- Shelf life considerations
- Health & Safety

## Your Benefits

The training will provide you with the knowledge and tools to do the following:

- Increase reliability and avoid downtime of your vehicle or equipment
- Save time by using innovative technologies that reduce downtime and service intervals
- Reduce costs by repairing worn or damaged parts instead of replacing them

**Contact your Henkel Engineer for more details and to arrange your training.**



**Increase Reliability**  
and avoid downtime of your industrial equipment and machinery by regular maintenance



**Improve Safety**  
at work by increasing reliability of your machinery and by using non-hazardous products



**Save Time**  
by using innovative technologies that reduce downtimes and increase service intervals



**Reduce Costs**  
by repairing worn or damaged parts instead of replacing them

**LOCTITE®**  
**BONDERITE®**  
**TECHNOMELT®**  
**TEROSON®**  
**AQUENCE®**

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