



Loctite Corporation, now Henkel Corporation, the pioneer of anaerobic adhesives, has applied this technology to create retaining compounds that increase the shear strength of cylindrical, non-threaded assemblies. Finding wide acceptance as a standard method for assembling press and slip-fitted parts, Loctite® brand retaining compounds fill the “inner space” between components and cure to form a strong precision assembly. Formulated in a selection of viscosities, gap filling ability, flexibility, and strength characteristics, Loctite® brand retaining compounds can be applied with automated process equipment or dispensed manually.

RETAINING

Loctite® 603™ Retaining Compound

Press Fit/Oil Tolerant

A retaining compound tolerant of oil and other contamination. Seals and secures cylindrical assemblies up to 0.005" radial clearance. Fixtures in 10 minutes. Prevents fretting and corrosion of metal assemblies.

Loctite® 609™ Retaining Compound

Press Fit/General Purpose

A low viscosity retaining compound that bonds rigid metal assemblies. Ideal for gap distances up to 0.005" diameter. Fixtures in 10 minutes and provides a shear strength of 3,000 psi after 24 hours. Easily joins dissimilar metals. Withstands temperatures to 300°F.

Loctite® 620™ Retaining Compound

Slip Fit/High Temperature

A high temperature (450°F), high viscosity liquid retaining compound. Provides a shear strength of over 3,800 psi on steel. Locks and secures metal cylindrical assemblies up to .015" diameter clearance. Prevents metal fretting and corrosion. Seals against leakage.

Loctite® 635™ Retaining Compound

Slip Fit/High Strength/Slow Cure

A high viscosity, high strength retaining compound with slow cure speed to permit readjustment of parts during assembly.

Loctite® 638™ Retaining Compound

Slip Fit/Maximum Strength

A maximum strength retaining compound for use where high dynamic force or cyclic loading is expected. Locks cylindrical assemblies up to .010" diameter clearance. Fixtures in 5 minutes.

Loctite® 640™ Retaining Compound

Press Fit/Medium Strength/ High Temperature

A medium viscosity retaining compound that resists temperatures to 400°F.

Loctite® 641™ Retaining Compound

Press & Slip Fit/Controlled Strength

A controlled strength retaining compound that is ideal for cylindrical parts that require disassembly. Recommended for maximum diameter clearance of 0.008". Fixtures in 20 minutes.

Loctite® 648™ Retaining Compound

Press Fit/High Strength/Rapid Cure

A retaining compound recommended for continuous working temperatures up to 300°F. Fills gaps up to 0.006" diameter clearance. Fixtures in 5 minutes.

Loctite® 660™ Quick Metal® Retaining Compound

Press Fit Repair

A creamy, non-running adhesive/sealant. Repairs worn machine parts. Restores correct fit to mating assemblies. Fills gaps up to 0.020" diameter clearance.

Loctite® 661™ Retaining Compound

Slip Fit/UV Cure

Fast curing, high strength retaining compound. Achieves fixture strength in 5 minutes or in 15 seconds by exposing edge fillets to high intensity long wavelength UV light.

Loctite® 675™ Retaining Compound

Press Fit/Medium Strength





A low viscosity retaining compound that augments press fit assemblies. Slow cure speed permits readjustment of parts during assembly.

Loctite® 680™ Retaining Compound


Slip Fit/High Strength

A high viscosity retaining compound for joining fitted cylindrical parts. Fixtures in 10 minutes and provides a shear strength of 4,000 psi on steel after 24 hours. Fills diametral gap distances up to 0.015".

LOCTITE® BRAND RETAINING COMPOUNDS PROPERTIES CHART

| PRODUCT | Item Number | Container | Typical Use | Color | Max. Gap Fill (Diametral) | Viscosity cP | Shear Strength Steel/Steel (psi)* | Temperature Range | Cure Speed, Steel @25°C | Recommended Primer | Specific Gravity | Agency Approvals |
|--|---|--|---|--------|---------------------------|-----------------------------------|-----------------------------------|-------------------|-------------------------------------|--------------------|------------------|---|
| 603™  | 21440 21441 21442 | 10 ml bottle 50 ml bottle 250 ml bottle | For close fitting parts with light contamination | Green | .005" | 125 | 3,770 | -65°F to 300°F | Fixture - 10 min. Full - 24 hrs. | N™ or T™ | 1.10 | - |
| 609™ | 60905 60921 60931 60941 60943 | .5 ml capsule 10 ml bottle 50 ml bottle 250 ml bottle 1 liter bottle | 1st generation to augment press fits | Green | .005" | 125 | 2,300 (min.) | -65°F to 300°F | Fixture - 10 min. Full - 24 hrs. | N™ or T™ | 1.10 | MIL-R-46082B for existing designs, CFIA |
| 620™  | 62005 62015 62040 62070 62085 | .5 ml capsule 10 ml bottle 50 ml bottle 250 ml bottle 1 liter bottle | For high temperature applications | Green | .015" | 8,500 | 3,800 | -65°F to 450°F | Fixture - 30 min. Full - 24 hrs. | N™ or T™ | 1.16 | CFIA, ABS |
| 635™ | 63531 63541 | 50 ml bottle 250 ml bottle | 1st generation high strength for slip fits | Green | .010" | 2,000 | 4,500 | -65°F to 300°F | Fixture - 1 hr. Full - 24 hrs. | N™ or T™ | 1.05 | MIL-R-46082B for existing designs |
| 638™ | 21447 21448 21449 | 10 ml bottle 50 ml bottle 250 ml bottle | High strength for loose fitted parts | Green | .015" | 2,500 | 4,500 | -65°F to 300°F | Fixture - 10 min. Full - 24 hrs. | N™ or T™ | 1.09 | CFIA |
| 640™ | 64031 64041 | 50 ml bottle 250 ml bottle | For high temperature applications | Green | .007" | 600 | 3,000 | -65°F to 400°F | Fixture - 1 hr. Full - 24 hrs. | N™ or T™ | 1.12 | MIL-R-46082B for existing designs |
| 641™  | 28802 21458 | 10 ml bottle 50 ml bottle | Medium strength for easier disassembly | Yellow | .006" | 525/1,950 Thixotropic | 1,700 | -65°F to 300°F | Fixture - 20 min. Full - 24 hrs. | N™ or T™ | 1.07 | CFIA |
| 648™ | 21443 21444 21445 | 10 ml bottle 50 ml bottle 250 ml bottle | Fast fixturing for close fitting parts; high strength for stainless steel | Green | .006" | 500 | 3,900 | -65°F to 350°F | Fixture - 5 min. Full - 24 hrs. | N™ or T™ | 1.13 | - |
| 660™ Quick Metal® | 66010 66040 30287 | 6 ml tube 50 ml tube 250 ml tube | For repair of worn machinery parts | Silver | .020" | 250,000/ 1,500,000 Thixotropic | 3,335 | -65°F to 300°F | Fixture - 20 min. Full - 24 hrs. | N™ or T™ | 1.13 | CFIA |
| 661™  | 66141 | 250 ml bottle | Fast UV anaerobic curing | Amber | .006" | 500 | 3,500 | -65°F to 350°F | Fixture - 5 min. Full - 24 hrs. | N™ or T™ | 1.11 | - |
| 675™ | 67541 | 250 ml bottle | 1st generation for close fitting parts | Green | .005" | 125 | 3,000 | -65°F to 300°F | Fixture - 20 min. Full - 24 hrs. | N™ or T™ | 1.09 | MIL-R-46082B for existing designs |
| 680™ | 68005 68015 68035 68060 68090 | .5 ml capsule 10 ml bottle 50 ml bottle 250 ml bottle 1 liter bottle | High strength for slip fitted parts | Green | .015" | 1,250 | 2,800 | -65°F to 300°F | Fixture - 10 min. Full - 24 hrs. | N™ or T™ | 1.11 | NSF/ANSI 61, ABS |

* Varies with substrates.

 Indicates worldwide availability.