

## WHICH LOCTITE TO USE

By Henry Zwolak

Many of the questions that we answer at RC Aero Products is about the use of Loctite. Our answers are easy - all engines, whether they are single or dual cylinder models produce vibration, and this vibration will loosen bolts and nuts over time.

Checking the tightness of the bolts/nuts every couple of flights is smart preventative maintenance. It only takes a minute or so. Make this a mantra of yours.

We do recommend the use of Loctite products on ANY metal to metal contact surface. The engine itself is OK and you do not have to worry about it, but any bolt and nut that connects to it, like engine mounts DO need it. ANY and EVERY nut and bolt needs on the aircraft needs to have Loctite applied to it.

Using Loctite is very inexpensive insurance for your aircraft. Next time you are at your favorite hardware store, pick up a bottle. It lasts a long time.

OK. So now which one to use? The table below and the attached product guide (produced by Loctite) will tell you the proper ones.



### Summary –

Never use RED – Unless you have a specific reason. Blue is your best choice.

Why? First off - practical experience. Red Loctite when used properly and according to instructions will lock a bolt and nut permanently. I made this mistake when I put it on my prop washer hub. I could not remove the bolt and in fact twisted the head right off. I needed to use a torch!

Also, any time you remove a bolt or nut that was Loctited, you will have to reapply it again.

Should you apply Loctite to Prop Bolts? No.... Don't bother... You need to check the tightness of the bolts here ALL THE TIME. Every new day that you fly, the one thing you should do is check the tightness of the prop bolts.

The below information was taken from the Loctite Industrial Product Guide and as you can see all of the temp. ranges are - 65 to 300 degrees F., except 272 red which is up to 450 degrees. The cure times vary except they all require 24 hours to cure fully.

**222 - Purple** - Low strength thread locker, designed for precision metal fasteners under 3/4". Protect threads from rust and corrosion. Removable with hand tools. Temp range -65 to 300 degrees F. Cure Speed 20 min. Full 24 hrs.

**242 - Blue** - Medium strength thread locker for fasteners up to 3/4". Cures reliably even on stainless steel. Tolerant of oil and other contamination. Protects threads from rust and corrosion. Parts can be disassembled with hand tools. Temp range -65 to 300 degrees F. Cure speed 15 min. Full 24 hrs.

**262 - Red** - Permanent strength thread locker for fasteners up to 3/4". Designed for extreme environmental/chemical conditions. Especially useful for holding tight Grade 5 and 8 fasteners. Protects threads from rust and corrosion. Localized heating and hand tools required for disassembly. Temp range -65 to 300 degrees F. Cure speed 30 min. Full 24 hrs.

**272 - Red** - Hi-temp/hi-strength formula. Suited for temperatures up to 450 degrees F. Fast cure on most surfaces including "as received" fasteners. Recommended for bolts up to 1 1/2" in diameter. Heat and hand tools required for disassembly. Temp range -65 to 450 degrees F. Cure speed 60 min. Full 24 hrs.

**277 - Red** - High strength for locking fasteners up to 1 1/2". Prevents fasteners from loosening due to shock, heat or vibration. Protects threads from rust and corrosion. Removable with heat and hand tools. Temp range -65 to 300 degrees F. Cure speed 60 min. Full 24 hrs.

**290 - Green** - Medium strength thread locker for pre-assembled bolts up to 1/2". Penetrates threads by capillary action: simplifies preventive maintenance. Secures set screws and other assemblies after settings are completed. Used to seal welds and porous metal parts. Protects threads from rust and corrosion. Temp range -65 to 300 degrees F. Cure speed 10 min. Full 24 hrs.