

## Tek-Lok® Pellet Type

- -320°F to +500°F
- Reusability per IFI 124, IFI 524 and MIL-DTL-18240



Tek-Lok® self-locking threaded fasteners obtain locking action from an engineered plastic pellet compressed into a hole drilled in the threaded region of the fastener, to a depth slightly below the root of the thread. Pellet size and location are standard but can be altered to meet special requirements.

The locking action, partly produced by friction developed between the pellet and the mating thread, results from the metal-to-metal friction opposite the locking pellet. The pellet acts as a

wedge and creates a counter-thrust when deformed, while the inherent memory of the pellet strives to regain its original shape, causing positive locking. And since the lock action exists at all times, Tek-Lok fasteners are ideal for “adjusting” applications, when it’s essential that the fastener stays in a specific position without being seated. Tek-Lok fasteners are produced in both military and commercial grades, and are offered in a variety of insert materials for cryogenic to high temperature applications.

### Pellet Materials

\*These inserts are not recommended for reuse. Consult factory for technical details.

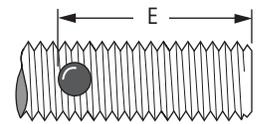
### How to Specify

Please turn to the inside back cover of this catalog for standard product selection and Part Number specification.

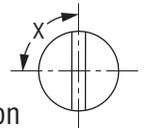
For application of Tek-Lok locking pellets to special threaded components, please follow the recommendations below. Remember, Long-Lok Fasteners can manufacture the complete fastening component, or if you prefer, send your parts for processing.

1. Specify “Tek-Lok [Nylon, Kel-F®, or Vespel®] Pellet.” Add to drawing notes: “to be installed by Long-Lok Fasteners Corporation.”

2. If pellet is to be positioned further from the end of the part than standard “L” Dimension indicates (see “Standard ‘L’ Dimensions”, following page), specify as length “E”. It is not necessary to specify “L” if standard length is satisfactory.



3. If pellet must be located diametrically in relation to another point, this location should be dimensioned as in “X”.



4. If special torque is required, consult with factory.

**Standard "L" Dimensions**

Thread Size	#0	#1	#2	#3	#4	#6	#8	#10	1/4
"L" Pellet Location	.06	.07	.08	.09	.14	.16	.17	.19	.24
Thread Size	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1
"L" Pellet Location	.27	.30	.31	.33	.38	.41	.47	.52	.52

Note: The locking pellet location dimensions are approximate and are for engineering information only

**Design Notes**

- Applicable Standards:  
 Military Specifications: MIL-DTL-18240  
 Military Standards: MS15981  
 Commercial Standards: IFI 124, IFI 524 (Metric)
- All standard nuts and most female threaded items can be made self-locking by drilling through the wall of the part and installing and swaging in place a nylon pellet. In some applications the pellet can be installed from the inside without drilling through the wall. Contact Long-Lok prior to specifying this design.
- Special parts can be produced with Tek-Lok pellets. Contact Long-Lok's engineering group for unusual thread sizes, materials, thin wall conditions, short parts—where standard pellets do not appear applicable.
- The locking element in Tek-Lok commercial fasteners can protrude above the crest of the thread, to approximately .010" over the maximum major diameter of the fastener. Therefore, a clearance hole of about .015" larger than the maximum major diameter of the fastener is recommended to allow for passage of the locking element, and the mating thread should be chamfered .020/.030 over the major diameter to insure good compression and locking action of the insert. Consult factory for special clearance hole or chamfer requirements.
- Ideal performance of Tek-Lok commercial fasteners is obtained when the locking element has engaged the mating thread for five revolutions (threadpitches) or more. However, in many applications excellent performance is obtained with considerably less engagement. In general, the minimum length standard Tek-Lok fastener readily obtained can be determined by noting that two full pitches of thread should exist beyond the locking element (L dimension) for either proper performance or manufacturing ease.
- Extensive, independent test data demonstrates that when used properly, the tensile strength of Tek-Lok pellet type fasteners are **not** adversely affected by the drilled holes used to accommodate the locking element.  
 Sizes of 1/4" diameter and smaller may exhibit a very slight reduction directly in the drilled hole area. However, similar test data has shown that a high tensile strength margin remains; all parts still meet minimum specification requirements. Torsional strength for these parts is only affected in sizes smaller than #8, and then only when tightened beyond yield strength. Shear strength is not lost in any size; high shear bolt grips are not altered.
- See Appendix for hole preparation and other installation information.

**See for Yourself**

Send us a sample of your part or fastener, along with a brief description of its application and performance requirements, and we'll process it using the most appropriate Long-Lok thread locking or sealing method. Or, to sample a standard Long-Lok fastener, simply supply us with a Part Number. Samples are provided free of charge. Call your nearest Long-Lok facility for assistance.