



Pacer ANL Series Threadlockers are formulated for use in anaerobic threadlocking, sealing, joining and fastening of metal components. Low, medium and high strength, oil tolerant, high temperature, and wicking grade threadlocking compounds are available for almost every fastener configuration, strength, operating requirement and fastener size.

PROPERTY	ANL-22	ANL-42	ANL-43	ANL-71	ANL-72	ANL-77	ANL-90
Description	low strength for small screws <1/4" removable	medium strength, nut grade, removable	removable, oil tolerant	high strength, permanent, up to 1"	high temperature, high strength, permanent	high strength, permanent, for large fasteners >1"	high strength, permanent, wicking grade
Color	purple	blue	blue	red	red	red	green
Viscosity, cps	800-1600	800-1600	1500-3000	300-500	4000-15000	5500-8000	10-50
Fixture time, steel, (min.)	<20	<20	<20	<20	<20	<20	<20
Service Temperature - after cure (F)	-65 to 300	-65 to 300	-65 to 300	-65 to 300	-65 to 450	-65 to 300	-65 to 300
Breakaway, steel, 24hr (in-lbs)¹	25-80	70-150	Steel: >130 Phos-oil: 100-130	>150	160-250	>200	>100
Prevailing, steel, 24hr, (in-lbs)¹	10-50	25-60	Steel: >35 Phos-oil: 40-60	>200	>180	>200	>250
Compression Shear, steel, 24hr (psi)²	N/A	N/A	>1100	N/A	24hr: >2000 72hr@ 392F: >2900*	>1300	800-2500

1 – ASTM D5649

2 – ASTM D4562

* tested at elevated temperature

STORAGE AND SHELF LIFE:

For optimum results, store below 77⁰ F (25⁰ C) in original containers. Stored under these conditions, a one-year shelf life can be expected.



APPLICATION AND CURE CHARACTERISTICS:

When using threadlocking compounds on standard bolt/nut configurations, make sure mating threads are clean and dry. Apply adhesive to 3-5 male threads, allowing adhesive to fill threads completely around the fastener. Assemble fastener and tighten within a few minutes for best results. For fasteners being inserted into a blind hole, apply two or three drops of threadlocking compound to the inside of the blind hole, then apply several drops to the male threads as above, and assemble. Install fastener into the female threads a few turns, then back completely out and reinsert completely. This moves the compound further into the blind hole and prevents trapped air behind the threads from preventing the compound from filling the threads during assembly.

Pacer threadlocking compounds generally fixture, (resist low strength efforts at removal), within 15-20 minutes. Full cure is reached in 24 hours at 70⁰ F/21⁰ C. Cold conditions can slow adhesive cure dramatically. Warming the assembled fastener for 30-40 minutes at 250⁰ F/121⁰ C, or the application of Pacer Anaerobic Primer to one of the surfaces prior to assembly, will accelerate cure.

Avoid using too strong a compound if it is likely the fastener will require removal in the future. Too strong a compound on small fasteners will result in an inability to remove the fastener without breaking it. To remove a fastener locked with a high strength compound, heat the fastener, especially in the thread area, if possible. Use a torch applied to the fastener to raise the temperature above 250⁰ F/121⁰ C for standard threadlocking compounds and above 350⁰ F/176⁰ C for high temperature rated compounds. Disassemble while hot.

Do not use anaerobic threadlocking compounds in contact with plastics. Pacer ISL Threadlocking Compounds for plastics are available through your local industrial distributor.

Do not return unused adhesive to the bottle. Contaminated adhesive will cause the entire bottle to cure.

Pacer Anaerobic threadlocking materials meet the following types and grades:

Specification Compliance	ANL-22	ANL-42	ANL-71	ANL-77	ANL-90
MIL-S-46163A* (Type/Grade)	II/M	II/N	I/K	I/L	III/R
ASTMA D-5363 (Group/Class/Grade)	03/1/1	03/2/1	02/2/1	02/1/1	02/6/1

*Pacer Technology products may exceed the maximum prevailing strength values on plated parts as shown on Table III or section 3.4.1 of MIL-S-46163A. Performance specification ASTM D-5363 is intended to replace this specification.



SAFETY AND HANDLING PRECAUTIONS:

Store below 77⁰ F/25⁰ C in original containers. Liquid adhesive can irritate skin and eyes. May cause dermatitis on prolonged contact in sensitive individuals. In case of eye contact, flush with water for 15 minutes, see a physician if symptoms persist. If swallowed, do not induce vomiting. Get immediate medical attention. Use of safety glasses, protective clothing and gloves recommended for prolonged exposure to liquid adhesive.

For more information, refer to Material Safety Data Sheet, available upon request. In case of emergency, call Pacer Technology at 800-538-3091 (outside CA only), or 909-987-0550.

Size / Part Numbers	ANL-22	ANL-42	ANL-43	ANL-71	ANL-72	ANL-77	ANL-90
10 mL	FG06110	FG06120	*	FG06140	FG06146	FG06150	*
50 mL	FG06112	FG06122	*	FG06142	FG06147	FG06152	FG06162
250 mL	FG06111	FG06121	FG06131	FG06141	FG06148	FG06151	FG06161
1 L	FG06113	FG06123	*	FG06143	FG 06149	FG 06153	FG06163

* Contact Industrial Sales for information

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