



- **RELIABLE**
- **FAST SETTING**
- **ALLOWS FOR FUTURE DISASSEMBLY**

ADHESIVE R&D®'s anaerobic adhesives and sealants represent the latest generation in anaerobic chemistry. Anaerobic threadlockers remain liquid when they are exposed to the oxygen in air, but in the absence of air, (or anaerobic environment) these products quickly polymerize and fill the inner space between the surfaces. In a continuous quest to improve the performance of anaerobic adhesive's and sealants, **ADHESIVE R&D®'s** works with leading edge engineers to push the chemistry forward, to increase cure speeds and bond strengths, and to design products that are able to cure on contaminated or inert surfaces and yet remain stable without special handling.

42 BLUE™ is a medium strength anaerobic threadlocker for all types of metal fasteners. Use **42 BLUE™** on those jobs requiring a reliable fast setting anaerobic thread locker that allows for future disassembly of parts using hand tools and moderate effort. **42 BLUE™** works by unitizing the fastener assembly, effectively sealing the thread path against fluid leaks and corrosion. The result is disassembly at a known unchanging torque, anytime in the future, regardless of the environment.

PHYSICAL PROPERTIES

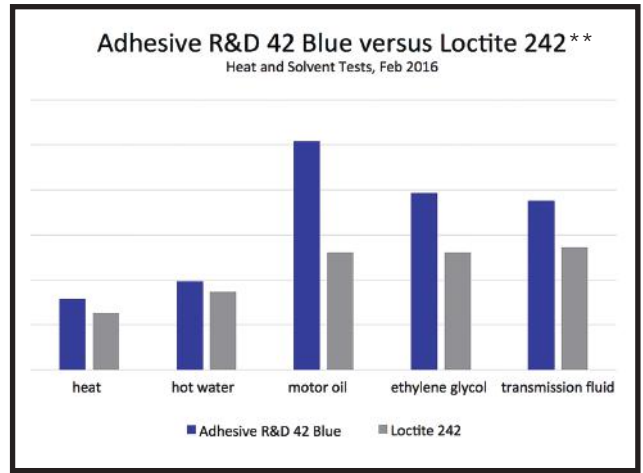
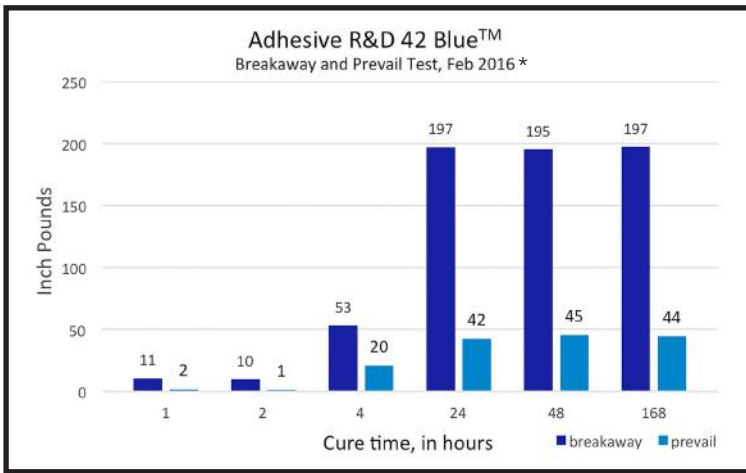
Composition	Anaerobic Methacrylate
Color	Blue
Viscosity	900-5,500 cps Thixotropic
Specific Weight	1.05
Flash Point	>200°F
Solvent Content	None
Shelf Life @ 72°F	2 years

CURING PROPERTIES

Handling Time	30-40 minutes
Full Cure	8-10 hours per ASTM D5363 Locking Torque*
Temperature Range	-350-350°F
Locking Torque*	(At 300°F for 2 hours)
Breakaway	150-200 inch lb's
Prevailing	30-60 inch lb's

*Per ASTM D5363 Specification. 3/8-16 plain finish cap screws and nuts. Larger fasteners will increase surface area and breakaway torque.

Since anaerobic adhesives and sealants cure, when they are in an oxygen free environment, it becomes more challenging to keep them stable over long periods of storage. This is especially true for very viscous materials such as pipe sealants. When anaerobic pipe sealants were first introduced into the market back in the early 1970's, a very simple cure system was used. Products would eventually polymerize, but it might take months. These products contain Teflon*, which when used on well made malleable steel and brass fittings, lubricates the threads and allows a tight seal.



With the introduction of modern alloys and advance material coatings, all with the desire to make surfaces more inert and resistant to corrosion, technology which was once cutting edge is now markedly dated. For these types of sealants to function properly in service, they need to be fully cured. Reduced quality of threaded parts caused by market competition, has increased the need for a different approach.

Condition	Temp, °C	Time, hrs	Result	Breakaway in inch-pounds	Prevail in inch-pounds
Heat ¹	150	48	Good	80	60
Hot Water ² ASTM D1193	90	168	Good	98	89
Motor Oil ²	90	168	Excellent	250	70
Transmission Fluid ² SAE J311	90	168	Excellent	188	60
Ethylene Glycol ² ASTM D2693	90	168	Excellent	196	73

¹ Heat testing requires samples to remain in heat for 48 hours, with test completed within 30 seconds of removal from heat.

² Solvent testing requires samples to remain immersed in solvent at temperature continuous for 168 hours (7 days). Samples cooled to room temperature for two hours prior to test.

* Breakaway and prevail torque per ASTM D5363 7.11 Specification.

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