

3M™ Wind Threadlocker W1245

High Strength

Description

3M™ Wind Threadlocker W1245 is a one-component anaerobic adhesive that cures and seals threaded assemblies in a wide range of applications to prevent loosening and leakage. This product provides excellent vibration, corrosion, and shock resistance.

Features

3M Wind Threadlocker W1245 is a high strength threadlocker formulated to permanently lock bolts and studs. This product will perform on lightly oily parts, and its thixotropic nature prevents dripping or migration of the liquid adhesive after assembly.

- Corrosion prevention
- Shock and vibration resistance
- Fast set time

Typical Uncured Physical Properties

Properties	Value
Chemistry	Dimethacrylate
Color	Red
Appearance	Liquid
Viscosity	1,200 cP
Set Time	≤20 minutes
Full Cure Time	24 hours

Note: Viscosity measured using a Brookfield RVT Viscometer with a #2 spindle at 20 rpm and 25°C.

Typical Cured Physical Properties

Properties	Value
Color	Red
Strength	High
Fastener Size Range	1/2–1 inch 12–25 mm
Breakaway Torque	180–290 in·lb 20.3–32.8 N·m
Prevail Torque	180–300 in·lb 20.3–33.9 N·m
Temperature Range	-65–300°F -54–149°C

Note: Breakaway and prevail torque values measured using ISO 10964 test method "Adhesives—Determination of Torque Strength of Anaerobic Adhesives on Threaded Fasteners."

Directions for Use

3M Wind Threadlocker W1245 is not recommended for use on most plastics due to potential cracking of plastic parts.

For Assembly:

1. Ensure parts are clean, dry, and free from oil, grease, and dirt. For best results, clean and dry parts with solvent.
2. Shake the adhesive bottle well before use.
3. Avoid touching the metal surfaces with the bottle tip since the metal ions may react with the adhesive upon contact and eventually may clog the bottle tip.
4. Apply adhesive into the threaded part where contact will occur during the final assembly. For larger parts, use more adhesive and rotate the threaded part to spread adhesive evenly around the contact area.
5. For through holes, apply several drops of adhesive onto the bolt at the nut engagement area. For blind holes, apply several drops of the adhesive down the internal threads to the bottom of the hole.
6. Assemble the nut/fastener and tighten as required.
7. Keep threaded assemblies undisturbed until the set time is reached, before further processing or testing.

For Disassembly:

1. Loosen or remove with regular hand tools.
2. If hand tools do not work due to the assembled parts being well tightened, apply localized heat (approximately 490°F (254°C)) to the nut or bolt and disassemble while parts are still hot.

Notes: 1. When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer's precautions and directions for use. Use solvents in accordance with local regulations.

2. Use extreme caution when working with heat sources (heat guns, flames, etc.).

Note: The following information and data should be considered representative or typical only, and should not be used for specification purposes.

Material Surface Activity and Cure Speed

Anaerobic adhesives rely on the presence of active metal ions on the bonding surfaces for the cure to progress. The list below indicates which metals are generally considered “Active” and result in a fast threadlocker cure, and which metals are “Inactive” and threadlocker curing will happen slowly. These “Inactive” metals will usually require the use of an activator to ensure the cure takes place as expected.

Active (Fast)	Inactive (Slow)
Aluminum alloys	Aluminum
Brass	Anodized aluminum
Bronze	Cadmium
Copper	Chemical black oxide
Iron	Galvanized steel
Manganese	Magnesium
Nickel	Plated parts
Steel	Stainless steel
	Zinc

Military Specifications

3M™ Wind Threadlocker W1245 has been tested and passed the requirements of MIL-S-46163A.

Storage

Store product at 59–77°F (15–25°C) and out of direct sunlight for maximum shelf life.

Shelf Life

This product has a shelf life of 12 months when stored in the original sealed container at room temperature.

Precautionary Information

Refer to the product label and Material Safety Data Sheet for health and safety information before using this product. For additional health and safety information, call 1-800-364-3577 or (651) 737-6501.

For more information on our wind energy product line, contact 3M Renewable Energy at 800-755-2654 or visit us at www.3M.com/wind.

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Issued: 4/12 8629HB
98-0150-0184-9

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