

# ND MICROSPHERES®

ND Microspheres TA is a process in which dual microencapsulated, room temperature curing threadlockers are applied to male or female threaded fasteners of virtually all sizes, configurations, materials and finishes. Dual microencapsulation results in a threadlocker which is less susceptible to environmental conditions. Pre-applied ND Microspheres TA fasteners arrive dry to the touch and ready for assembly.



### PRE-APPLIED PROCESS INFORMATION

#### How It Works

After choosing ND Microspheres TA processing, have your parts sent to one of ND's service centers.

ND will then apply a microencapsulated activator and resin suspension. This material dries on the part and is then shipped back to the customer for use.

When installed, the shearing forces caused by engagement with a mating part release the activator and resin, allowing them to mix. The resulting chemical reaction rapidly bonds the surfaces, locking the parts together and sealing leak paths.

## Versatile

ND Microspheres TA processing is compatible with most fastener sizes, configurations, materials and finishes.



ND Microspheres TA Series processed fasteners assemble easily with common hand tools.



ND Microspheres TA processing is available in three formulas to meet differing needs including; low strength, high strength, and high temperature with torque tension control.



Parts processed with ND Microspheres TA have an on part life of 4 years\* and will remain inert until a cure is activated by engagement with a mating thread.



A cross-linked molecular structure makes TA Series materials some of the most resistant types of adhesives. Oil, gasoline, salt spray, acids, solvents, and water have virtually no effect on parts after final cure.



ND Microspheres TA processed fasteners meet or exceed all torque requirements of IFI 125, IFI 525, as well as automotive adhesive coated fastener performance specifications.

#### CONTACT US

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## PRE-APPLIED ND MICROSPHERES® TA



#### **PROCESS BENEFITS**

**Saves Time:** ND Microspheres TA processed fasteners can be automatically fed through standard feeding devices – speeding up your process and improving productivity.

**Saves Money:** ND Microspheres TA processing is less expensive than hand applying bottled thread locking compounds at the point of assembly. It also eliminates the need for costly lock washers, cotter pins or castellated nuts.

Quality Control: Pre-Applied ND Microspheres fasteners are coated to specification, ensuring consistent performance, unlike the variation from hand applying bottled products.

**Reliability:** Under most operating conditions, ND Microspheres TA are unaffected by vibration or reversal of stress and greatly reduces the need to re-tighten fasteners.

#### ND MICROSPHERES TA APPLICATIONS

Engine Applications, Wheel Bearings, Automotive Locking Applications, Automotive Body/Frame Bolts, Suspension Areas, Brakes, Rear-End, Transmissions.

#### **APPROVED SPECIFICATIONS**

Meets or exceeds the performance requirements of the following specifications and/or standards: Ford: ESS-M11P24-A2 • General Motors: GM6124M, GM6175M, GM6194M, GME00151, GMW14657A, GMW14657C

#### **OTHER NOTES**

- Under typical conditions, ND Microspheres TA will fixture after 4 minutes with a full cure in 24 hours.
- Typically the first one to three threads from the end of the fasteners are left free of material to assure ease of starting.
- It is recommended that ND Microspheres TA processed parts are not reused.
- Materials used with ND Microspheres TA processing have an on part life of 4 years. (When stored in a dry, cool environment.)

#### **PRE-APPLIED SERVICE**

**Step 1 - Process Selection:** Our sales and R&D staff will help you find the right process to meet your performance specifications.

**Step 2 - Shipping:** Once a selection has been made, have your fasteners shipped to one of our worldwide processing centers.

**Step 3 - Processing:** Utilizing custom, high-speed equipment, we apply the necessary materials to your exact specification.

**Step 4 - Delivery:** Once processing is complete, parts are shipped back ready for distribution or assembly.