



Advanced Fastening and Sealing Technologies

PRE-APPLIED

ND MICROSPHERES[®] EPOXY

ND Microspheres Epoxy is a pre-applied process in which microencapsulated, epoxy based, room temperature curing threadlocking adhesives are applied to male or female threaded fasteners of virtually all sizes, configurations, materials and finishes.



PRE-APPLIED PROCESS INFORMATION

How It Works

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

ND will then apply a microencapsulated epoxy resin suspended in a hardener to fasteners. After drying, parts are shipped back to the customer ready for use.

When installed, the forces of engagement crush the microscopic capsules of epoxy resin, mix the separate reactant components, and initiate a chemical reaction which locks the parts together.



Resists Chemicals

Processed parts resist and seal against most automotive fluids. Oil, water, antifreeze, and gasoline have virtually no effect on performance once the final cure has been achieved.



Versatile

ND Microspheres Epoxy processing is compatible with most fastener sizes, configurations, materials and finishes. Available in Blue, Yellow, Pink, Green, and Red.



Exceptional Locking

Extensive testing indicates that ND Microspheres Epoxy processed fasteners provide two to four times greater break-away torque than conventional "plastic" thread locking devices.



Low Prevailing-on Torque

Compared to patch threadlockers, ND Microspheres Epoxy fasteners have a lower on torque and assemble easily with common hand tools.



Long Shelf Life

Materials used for ND Microspheres Epoxy processing have an on part life of 2 years and will remain inert until a cure is activated by thread engagement.



Surpasses IFI Standards

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

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CERTIFICATIONS & ACCREDITATIONS
AS9100:2009, Rev. C • QPL-18240F • QSLM
ITAR • ISO-9001:2008 • ISO/IEC 17025:2005
CE Directive 2006/42/EC • ISO-14121
ISO-12110-1/12110-2 • IEC-EN 60204-1

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PROCESS BENEFITS

Saves Time: Processed fasteners can be automatically fed through standard feeding devices – speeding up your workflow and improving productivity.

Saves Money: ND Microspheres Epoxy 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, processed parts are unaffected by vibration or reversal of stress and greatly reduces the need to re-tighten fasteners.

END USER 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:

- Chrysler: PF-6616, MC-CC-76 A & C
- Ford: ESA-M2G200-A, ESB-M2G200-B, ESS-M11P24-A1, ESS-M11P24-A2, WSS-M11P45-A1, WX-200 (green color)
- General Motors: GM6175M, GME00151, GMW 14657B
- Hyundai / KIA: MS-721-39

PROCESSING NOTES

- Typical fixture time of 4 hours with a full cure in 72 hours.
- The first 1 to 3 threads on the fastener are typically left free of material to assure ease of starting.
- It is recommended that ND Microspheres Epoxy processed parts are not reused.
- Shelf life of un-activated part is 2 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.