

ND MICROSPHERES®

EPOXY TYPE【环氧树脂系列】



ND Industries® is ISO9001:2000 / AS9001B / QPL-18240F Listed / QSLM Registered



汽车工业标准

产品描述:

- ND MICROSPHERES EPOXY SERIES是经微粒压缩处理, 在一般室温即可达成硬化黏附功能, 并可被用于所有螺丝或螺帽扣件成品上。经涂于扣件后, 可长期维持稳定状态, 方便储存放置。
- ND MICROSPHERES EPOXY SERIES一直维持在钝化状态下, 直到涂料扣件与对锁件结合后, 这样的结合力量会挤压极微细料囊与环氧树脂混合反应, 并且释放出强大催化剂产生化学反应物, 因而产生强大黏附结合效果。
- 涂附ND MICROSPHERES EPOXY TYPE的扣件与其封锁件锁合后, 即可产生黏合硬化的功能, 并于72小时后达到完成硬化的功能。



产品特点:

- 旋入扭力小:**方便组立加工。
- 特殊的锁紧力量:** ND MICROSPHERES可提供至少高于尼龙料涂附2至4倍以上之破坏扭距 (BREAKAWAY TORQUE)。
- 凌驾IFI (工业螺丝扣件机构标准):** ND MICROSPHERES达到或超出所有IFI 125和IFI 525的扭力转矩规范, 并广泛应用于汽车工业之扣件上。
- 不受外来物质影响:** 适用于各种不同表面处理及材质的扣件上, 当ND MICROSPHERES EPOXY旋入硬化固定后, 对外在物质如: 油脂、汽油、盐喷、酸性物质、溶剂、水和空气, 皆不会造成影响, 具有绝佳之抗阻性。
- 省钱:** ND MICROSPHERES快速自动加工方式达到最有效之经济效益。

SPECIFICATION:

Bulk Properties:			
Formula*	ND Microspheres® 593-S	ND Microspheres® 1193-S	ND Microspheres® 593 DPC
Typical Colors(see Note-1)	Blue or Yellow	Orange or Neutral	Blue or Yellow
Appearance	Liquid	Liquid	Dry Powder
Base	Synthetic Resin	Synthetic Resin	Synthetic Resin
Base Solvent	Toluene	Toluene	Toluene
Flashpoint	40° F TCC	40° F TCC	N/A
Net Weight	8.6±0.2 lbs./gal	8.6±0.2lbs./gal	
Viscosity	1600-2000cPs	1600-2500cPs	300-2000cPs*****
Solids Content	59.5±2.5%	59.5±2.5%	
Shelf Life	1 year**	1 year**	1 year**
As Applied Properties			
Primary Usage	Heavy Duty Lock	Heavy Duty Lock	Heavy Duty Lock
Reusability	Limited (Approx. 3 Times)	Limited (Approx. 3 Times)	Limited (Approx. 3Times)
Installation (on) Torque	Minimal****	Minimal****	Minimal****
Breakaway Torque*	Exceeds IFI 125 & IFI 525****	Exceeds IFI 125 & IFI 525****	Exceeds IFI 125 & IFI 525****
Prevailing (off) Torque*	Exceeds IFI 125 & IFI 525*	Exceeds IFI 125 & IFI 525*	Exceeds IFI 125 & IFI 525*
Typical Lead Threads	1 to 3	1 to 3	1 to 3
Typical Coating Length	1.5×Diameter	1.5×Diameter	1.5×Diameter
Service Temperature Range	-65°F to +300°F***** -54°C to +148°C	-65°F to +300°F (intermittently R00) -54°C to +148°C	-65°F to +300°F (on bolt after applied) -54°C to +148°C
Compare to	3M Scotch-Grip 2353 & 4844	3M Scotch-Grip 2451 & 2510	
Shelf Life	2years**	2years**	2years**



稳得电子 (昆山) 有限公司
ND ELECTRONICS (KUNSHAN) CO., LTD

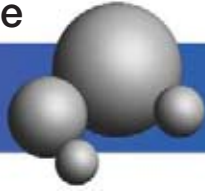
ND MICROSPHERES®

Fastener Adhesive



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Epoxy Type



Automotive Approved



DESCRIPTION:

- ❑ ND Microspheres are microencapsulated, room temperature curing adhesives that can be applied to **male** or **female** threaded fasteners of all sizes and configurations.
- ❑ ND Microspheres remain inert until the coated fastener is assembled to its mating part. 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.
- ❑ Within minutes of assembly, ND Microspheres forms a substantial bond between the mating surfaces. Curing continues, normally, for 72 hours following installation in order to achieve full strength.
- ❑ ND Microspheres 593 DPC is available in powder form which, once reconstituted with the recommended solvent, exhibits the same properties as factory supplied liquid material.

COMPARE TO 3M*** Scotch-Grip***

FEATURES:

- ❑ **Low Prevailing On Torque:** Assembles easily with common hand tools.
- ❑ **Exceptional Locking Power:** Extensive testing indicates that ND Microspheres provides two to four times greater breakaway torque than conventional "plastic" fastener locking devices.
- ❑ **Versatile:** ND Microspheres are compatible with most sizes, configurations, materials and finishes.
- ❑ **Surpasses Industrial Fastener Institute Standards:** ND Microspheres meets or exceeds all performance requirements of IFI 125 and IFI 525 as well as automotive specifications when used on clean, dry and/or dry phosphated surfaces.
- ❑ **Long Shelf Life:** Once applied, ND Microspheres remains inert until a cure is activated by engagement with a mating thread. Store in cool dry environment.



FEATURES CONTINUED:

- ❑ **Unaffected By Foreign Substances:** Oil, gasoline, salt-spray, acids, solvents, water, and air have virtually no effect on Microspheres when introduced after a final cure has been achieved. The cross-linked molecular structure of ND Microspheres makes it one of the most resistant types of adhesives.
- ❑ **Saves Money:** ND Microspheres brand pre-applied thread adhesive is less expensive than applying bottled thread locking compounds at the point of assembly.

ND Microspheres meets or exceeds the performance requirements of the following specifications and/or standards:

AUTOMOTIVE

- ❑ DaimlerChrysler PF-6616 & MS-CC-76
- ❑ Ford ES-20007-S100, ES-20010-S100
ESS-M11P24-A1 & ESS-M11P24-A2
- ❑ General Motors GM6175M, GM6194M

INDUSTRIAL FASTENER INSTITUTE

- ❑ IFI 125
- ❑ IFI 525

OEM

- ❑ Detroit Diesel 80K15
- ❑ Rockwell International Q-29
- ❑ Caterpillar 1E2486
- ❑ International Harvester PF-200

For a complete list, contact ND INDUSTRIES.