

# ND MICROSPHERES™

## ACRYLIC SERIES 【水溶性原料系列】



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



汽车工业标准

### 产品描述:

- ND MICROSPHERES水溶性系列的THREAD-LOCKING 产品为料囊原料，可于锁附后，在一般室温条件下达成黏附硬化功能。
- ND MICROSPHERES水溶性系列包括微粒浓缩的催化剂，在锁附后经摩擦会释放催化剂与树脂混合，快速地黏表面（1）黏合（2）防松（3）防漏之效果。水溶性系列可提供稳定的扭矩值并且不需要特别加热来达到硬化效果。

### 产品特色:

- 经锁附后不受溶剂液体影响，如汽油、水等。
- 浓度、颜色、黏稠度(或效果)多样化:ND MICROSPHERES水溶性系列提供不同的颜色选择，并且有不同的强度等级，以适用于不同之作业环境需求。
- 快速固定:在一般的情况下需5分钟即可产生固定效果。



- ND ACRYLIC 系列产品，可同时提供耐高温及高扭矩功能以满足业界需求。
- 省钱:ND MICROSPHERES预涂式加工比手涂式更具经济效益。
- ND MICROSPHERES提供各种浓度之原料可涂附于各种形状、材质、表面处理之物件上。

### PROPERTIES SUMMARY As Applied to Fastener:

Product Formula color	AA0695 Yellow	AA0696 Yellow	AA0795 Yellow	AA0796 Yellow	AA0895 Green	AA0896 Green	AA0995 Silver	AA0996 Silver	AA1095 Pink	AA1096 Pink	AA1195 Blue	AA1196 Blue	AA1295 Pink	AA1296 Pink	AA1395 Green	AA1396 Green
Primary Usage	General Purpose	General Purpose	High Temp.	High Temp.	Medium Strength	Medium Strength	Low Strength	Low Strength	Plated Surfaces	Plated Surfaces	High Strength High Lubricity	High Strength High Lubricity	Plated Surfaces	Plated Surfaces	Medium Strength	Medium Strength
Typical Lead Threads (See Note 1)	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3	1 to 3
Typical Coating Length (See Note 2)	1.5 x Diameter	1.5 x Diameter	1.5 x Diameter	1.5 x Diameter	1.5 x Diameter	1.5 x Diameter	1.5 x Diameter	1.5 x Diameter	1.5 x Diameter	1.5 x Diameter	1.5 x Diameter	1.5 x	1.5 x	1.5 x	1.5 x	1.5 x
Average On Torque** (in lbs.) (Nm)	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13	<10 <1.13
Break/Prevail Torque** After Full Cure (in lbs.) (Nm)	210/250 24/28	210/250 24/28	225/250 25/28	225/250 25/28	200/185 23/21	200/185 23/21	175/100 20/12	175/100 20/12	270/260 30/30	270/260 30/30	210/95 24/11	210/95 24/11	300/240 34/27	300/240 34/27	245/150 28/17	245/150 28/17
Temperature Range °F °C	-65/300 -54/150	-65/300 -54/150	-65/400 -54/200	-65/400 -54/200	-65/300 -54/150	-65/300 -54/150	-65/300 -54/150	-65/300 -54/150	-65/300 -54/150	-65/300 -54/150	-65/300 -54/150	-65/300 -54/150	-65/300 -54/150	-65/300 -54/150	-65/300 -54/150	-65/300 -54/150
Lubricity	Medium	Medium	Low	Low	Medium	Medium	Medium	Medium	Low	Low	High	High	Medium	Medium	Medium	Medium
Fixture Time	5 Min	5 Min	5 Min	5 Min	5 Min	5 Min	5 Min	5 Min	5 Min	5 Min	5 Min	5 Min	5 Min	5 Min	5 Min	5 Min
O-Part life***	4 Years	4 Years	4 Years	4 Years	4 Years	4 Years	4 Years	4 Years	4 Years	4 Years	4 Years	4 Years	4 Years	4 Years	4 Years	4 Years
Compare To	Loctite® Dry-Loc 200	Loctite® Dry-Loc® 200	Loctite® Dry-Loc 201	Loctite® Dry-Loc 201	Loctite® Dry-Loc 202	Loctite® Dry-Loc 202	Loctite® Dry-Loc 203	Loctite® Dry-Loc 203	Loctite® Dry-Loc 204	Loctite® Dry-Loc 204	Loctite® Dry-Loc STS	Loctite® Dry-Loc STS	Loctite® Dry-Loc 211	Loctite® Dry-Loc 211	Loctite® Dry-Loc 218	Loctite® Dry-Loc 218
Full Cure Time @ Room Temp.	72 Hrs	72 Hrs	72 Hrs	72 Hrs	72 Hrs	72 Hrs	72 Hrs	72 Hrs	72 Hrs	72 Hrs	72 Hrs	72 Hrs	72 Hrs	72 Hrs	72 Hrs	72 Hrs
As Applied to Fastener																
Brookfield Viscosity Spindle 6 @ 20 RPM (cPs)	12,000	800	12,000	800	12,000	800	12,000	800	12,000	800	12,000	800	12,000	800	12,000	800
Resin (anaerobic)	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate	Meth-acrylate
Specific Gravity	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15	1.05 to 1.15
Fixture Time Cleveland Open Cup	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C	Above 200°F / 93°C



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

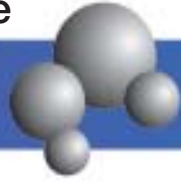
# ND MICROSPHERES™

## Fastener Adhesive

PreApplied

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

Acrylic Series



Automotive Approved



### DESCRIPTION:

- ❑ ND Microspheres Acrylic Series of threadlocking products are microencapsulated, room temperature curing adhesives that can be applied to **male** or **female** threaded fasteners of virtually all sizes, configurations, materials and finishes.
- ❑ ND Microspheres Acrylic Series contains a microencapsulated activator that is suspended in a quick curing waterborne resin. The shearing forces caused by engagement with a mating part releases the activator and allow it to mix with the resin. The resulting chemical reaction rapidly bonds the surfaces, locking the parts together and sealing leak paths. ND Microspheres Acrylic Series offers consistent and predictable torque values and requires no heat or primers for curing.

Compare to Loctite\*\* and Dri-Loc\*\*

### FEATURES:

- ❑ **Unaffected By Automotive Fluids:** ND Microspheres Acrylic Series resists and seals against most automotive fluids. Oil, water, antifreeze, and gasoline have virtually no effect on ND Microspheres Acrylic Series once the final cure has been achieved.
- ❑ **Variety of Strengths, Colors, & Viscosities:** ND Microspheres Acrylic Series is available in a variety of colors for easy part inspection and in different strengths to fit the desired application.
- ❑ **Fast Fixture Times:** Under typical conditions fixture is achieved within 5 minutes.
- ❑ **High Temperature & Torque Sensitive Formulas:** ND also manufactures formulations of ND Microspheres Acrylic Series that are specifically intended for use in high temperature or torque/tension sensitive applications.
- ❑ **Saves Money:** ND Microspheres Acrylic Series thread adhesives are less expensive than applying bottled threadlocking compounds at the point of assembly.
- ❑ **Suitable for Production Coating:** Each formula of the ND Microspheres Acrylic Series family is available in viscosities suitable for use on a broad range of production coating equipment.



### Attention Production Fastener Coaters:

ND Microspheres Acrylic Series is available in liquid form for application by fastener coating companies.

### FEATURES CONTINUED:

- ❑ **Minimal Clean-up Requirements:** Clean-up is a simple process that requires only soap and water.

Particular formulations of the ND Microspheres Acrylic Series meets or exceeds the performance requirements of the following specifications:

#### AUTOMOTIVE

- ❑ DaimlerChrysler PF-6616 & MC-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

For a complete list, contact ND INDUSTRIES.