

EXPAND-A-SEAL ES0105®



产品描述:

- ❑ Expand-A-Seal ES0105 为ND研发出划时代全新的微胶囊技术, 兼具密封与锁附的双重功能。
- ❑ Expand-A-Seal ES0105膨胀後体积约为20-50%, 且可有效的填充与密封螺纹间的孔隙, 阻绝空气及大多数工业用流体。
- ❑ 一旦旋入对锁件後会同时产生二种反应, 一为原料会随即扩张膨胀填充因结合而产生的孔隙; 另一反应则是锁入对锁件後, 即产生锁紧固定的功能。
- ❑ Expand-A-Seal ES0105经24小时以後完全固化

产品应用:

- ❑ 举凡各种因素所造成的衝击、震动或是液压所导致紧固件松脱或者洩漏, 使用Expand-A-Seal ES0105绝对是您最佳选择。一般典型的应用如: 引擎或发动机配件的管牙、塞头或航空配件连接、压缩机配件及冷凝连接器等。

产品特色:

- ❑ 低旋入扭力: 使用一般工具即可轻松组立。
- ❑ 特殊的锁紧力量: 虽然Expand-A-Seal ES0105为一密封材质, 但即使是在短短一个小时的时间, 亦能够提供扭力达到防松效果。
- ❑ 保存期限长: 经Expand-A-Seal ES0105塗佈後之紧固件, 直到与对锁件组立前, 依然能保有其功能性不会失效。(储存超过一年以上, 使用前请先行测试)
- ❑ 不受外来物质影响: 当其达到完全固化时, 石油、汽油、盐喷、酸、溶剂、水和空气等均不会对它产生反应。由於其内部相互链结的分子结构, 使得Expand-A-Seal ES0105成为最强的紧固件胶黏剂。
- ❑ 省钱: 比起其它一般市售的管路密封剂, Expand-A-Seal ES0105除了价格便宜之外亦同时增加了组装的速度。
- ❑ 保存条件: 此产品必须储存在介於-10° C ~30° C低温乾燥的环境下, 最适条件: 22±4° C。成品保存期限: 自加工完成日起12个月内, 储存温度条件为22±4° C。



ND Expand-A-Seal 符合下列之規範及標準:

汽车业

- ❑ General Motors: GM9986339

紧固件工业:

- ❑ IFI: IFI 125, IFI 525
- ❑ DIN: DIN 267 Part 27

成品功能表现 - 测试条件: 於72° F (23° C) 的温度下经过24小时固化。

M10表面为磷酸锌+油与铝的测试板	标准破坏扭力为 27 Nm (239 in. lb.)
M10表面镀锌与铝的测试板	标准破坏扭力为 25 Nm (221 in. lb.)
M10表面重酪酸锌与铝的	标准破坏扭力为 25 Nm (221 in. lb.)

密封功能测试*

Engine Oil @+300° F (+150° C)	通过
浸入刹车油@+300° F (+150° C)	通过
浸入变速箱油@ +300° F (+150° C)	通过
浸入水/乙二醇 比例各50% @+248° F (+120° C)	通过
浸入汽油 @+77° F (+25° C)	通过

*塗裝後的成品旋入铝质测试件後, 浸入测试介质当中并且加热, 经过30天後, 待温度冷却後进行密封与扭力的测试。组立件测试条件为: 793 kPa (115 PSI)。

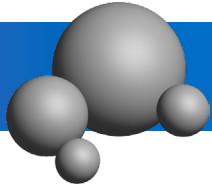
成品特性

用途	重度负荷环境下的防松及密封功能。
基材	合成树脂
颜色	标准色: 绿色(其它颜色可依客户需求)
重複使用性	无
瞬间破坏扭力	符合 IFI 125 & IFI 525 规范
承受压力(密封後)	In Excess of 115 PSI (793 kPa)
温度范围	-65° F to 300° F (-54° C to 150° C)
初固化时间	10-15 Minutes at 72° F (22° C)
固化时间	24 Hours at 72° F (22° C)
保存期限	於建议储存的条件下可达一年

EXPAND-A-SEAL ES0105®

Locking & Sealing

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



DESCRIPTION:

- Expand-A-Seal ES0105 is a unique microencapsulated expanding thread sealing and locking compound.
- Expand-A-Seal ES0105 expands volumetrically 20-50% and fills gaps and voids in threads to create a positive seal against air and most automotive fluids.
- Engaging the coated fastener allows two simultaneous reactions to take place. One reaction allows for the expansion of the material to fill any gaps or voids that may be present in the joint, the other reaction creates a fixture within minutes of assembly.
- Expand-A-Seal ES0105 achieves full cure in 24 hours.

APPLICATIONS:

- Use Expand-A-Seal ES0105 to seal critical applications where shock, vibration and fluid pressure cause the fastener to loosen or the joint to leak. Typical applications include engine pipe plugs, air fitting connectors, compressor fittings, cooling connectors and more.

FEATURES:

- Low Prevailing On Torque:** Expand-A-Seal ES0105 assembles easily with common hand tools.
- Exceptional Locking Power:** ND Expand-A-Seal ES0105 is a sealant that will provide exceptional breakaway torque values in as little as one hour.
- Long Shelf Life:** Expand-A-Seal ES0105 will remain inactive on the part until engagement with a corresponding component.
- Unaffected by Foreign Substances:** Oil, gasoline, salt-spray, acids, solvents, water, and air have no effect on Expand-A-Seal ES0105 when introduced after a final cure has been achieved. The cross-linked molecular structure of Expand-A-Seal ES0105 makes it one of the most resistant types of fastener adhesive available.
- Saves Money:** Expand-A-Seal ES0105 is less expensive than applying liquid user-applied pipe sealants at the point of assembly.
- Storage:** Product should be stored in a cool and dry location at temperatures between -10°C to 30°C. Optimal storage is 22±4°C. Shelf life is 12 months from date of manufacture when stored at 22±4°C



Expand-A-Seal ES0105 meets or exceeds the performance requirements of the following specifications and/or standards:

AUTOMOTIVE:

- General Motors: GM9986339

INDUSTRIAL:

- IFI: IFI 125, IFI 525
- DIN: DIN 267 Part 27

Performance of Cured Material - After 24 hour cure at 72°F (23°C)

Testing Material	Typical breakaway torque
M10 zinc phosphate plus oil bolt aluminum test plate	27 Nm (239 in. lb.)
M10 Zinc Plated bolt aluminum test plate	25 Nm (221 in. lb.)
M10 Zinc Dichromate bolt aluminum nut	25 Nm (221 in. lb.)

Seal Test on Fluid Resistance*

Engine Oil @+300°F (+150°C)	Pass
Brake Fluid @+300°F (+150°C)	Pass
ATF @ +300°F (+150°C)	Pass
50/50 water/ethylene glycol @+248°F (+120°C)	Pass
Gasoline @+77°F (+25°C)	Pass

* Coated parts assembled into aluminum block and submersed in test fluid and heated for 30 days then tested at temperature for sealing and tested for breakaway torque when cooled. Assembled parts tested at 793 kPa (115 PSI).

As Applied Properties

Color	Normally Green (other colors available)
Base	Synthetic Resin
Primary Usage	Heavy Duty Seal
Reusability	No
Breakaway Torque	Exceeds IFI 125 & IFI 525
Pressure Resistance	In Excess of 115 PSI (793 kPa)
Temperature Range	-65°F to 300°F (-54°C to 150°C)
Fixture Time	10-15 Minutes at 72°F (22°C)
Full Cure Time	24 Hours at 72°F (22°C)
Shelf Life	1 Year Under Recommended Storage Conditions