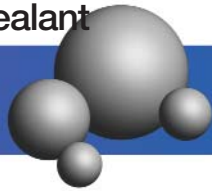


# ND EXPAND-A-SEAL ES0105®

Expanding Thread Sealant

PreApplied

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



ND  
INDUSTRIES

## DESCRIPTION:

- ❑ ND Expand-A-Seal ES0105 is a unique microencapsulated expanding thread sealing and locking compound.
- ❑ ND 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.
- ❑ ND Expand-A-Seal ES0105 achieves full cure in 24 hours.

## APPLICATIONS:

- ❑ Use ND 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:** ND 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:** ND 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 ND Expand-A-Seal ES0105 when introduced after a final cure has been achieved. The cross-linked molecular structure of ND Expand-A-Seal ES0105 makes it one of the most resistant types of fastener adhesive available.



## FEATURES CONTINUED:

- ❑ **Saves Money:** ND Expand-A-Seal ES0105 is less expensive than applying liquid user-applied pipe sealants at the point of assembly.
- ❑ **Storage:** Ideal storage conditions for coated fasteners is  $+72^{\circ}\text{F} \pm 2^{\circ}\text{F}$  ( $22^{\circ}\text{C} \pm 5^{\circ}\text{C}$ ) with a relative humidity of 50% or less.

**Proudly Represented by:**



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**Performance of Cured 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.)

\*After 24 hour cure at 72°F (23°C)

**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
Diesel Fuel @+77°F (+25°C) .....	.Pass

\*\*Coated parts assembled into aluminum block and submersed in the 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).

**PROPERTIES SUMMARY:**

<input type="checkbox"/> As Applied Properties:	
Color.....	Normally Green (other colors available upon request)
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

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**For more information on ND Expand-A-Seal ES0105, or any of ND Industries' other quality fastening products, contact your nearest ND Service Center:**

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