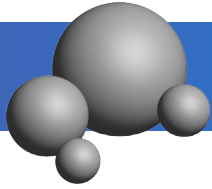


EXPAND-A-SEAL ES0105®

Locking & Sealing



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.

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



FEATURES CONTINUED:

Saves Money: Expand-A-Seal ES0105 is less expensive than applying liquid user-applied pipe sealants at the point of assembly.

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.

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

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SPECIFICATIONS:

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
Diesel Fuel @+77°F (+25°C)	Pass
As Applied Properties	
Color	Normally Green (other colors available)
Base	Synthetic Resin
Primary Useage	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

* 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).

Expand-a-Seal ES0105 is a product of ND Industries, Inc., U.S.A.



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