



Microspheres™ AA 795 Technical Data Sheet

Product Description

Microspheres AA 795 is a pre-applied film form adhesive for locking and sealing. Microspheres AA 795 is factory applied to either internal or external threads. It remains inert on the fastener until assembly of the threads. The resin fills the voids of the threads and cures to lock and seal the assembly.

Typical Applications

Microspheres AA 795 prevents loosening through vibration to provide locking and sealing of threaded assemblies including:

- Ring gear bolts
- Head bolts
- Intake manifold bolts
- Transmission bolts

Properties of Uncured Material

Chemical Type	Acrylate
Appearance	Yellow
Toxicity	Low

Curing Performance (fastener assembly)

Performance of Cured Material

	Typical Values
Prevailing on-torque	0.36 N-m
Breakaway torque	28 N-m
Temperature Range	-65°F to 400°F (-54°C to 200°C)
Cure time at Room Temp	72 hours

Prevailing on-torque and Breakaway torque data are from test results conducted on an M-10 x 1.5 class 10.9 phos-oil bolts and M-10 x 1.5 class 10 nuts.

Environmental and Fluid Resistance (Breakaway values)

	Typical Values
Engine oil@ 150°C	30 N-m
Brake fluid @ 150°C	12 N-m
ATF @ 150°C	34 N-m

50/50 water/ ethylene glycol @ 120°C	25 N-m
Water @ 100°C	32 N-m
Gasoline @ 25°C	30 N-m
Diesel fuel @ 25°C	33 N-m
15/85 Methanol/ Gasoline @ 25°C	30 N-m
Ethyl Alcohol @25°C	32 N-m

Cyclic Test	29 N-m
Heat age	36 N-m
Hot Strength	19 N-m

Immersion testing was conducted using M-10 x 1.5 phos-oil bolts and nuts. Assembled fasteners were submerged in each fluid for 1000 hours at the temperature. Assemblies were allowed to cool to room temperature before breakaway test.

Cyclic Test was conducted on M-10 x 1.5 phos-oil bolts and nuts. Assembled fasteners were aged at 150°C for 2 hours and allowed to cool to room temperature for 1 hour before breakaway test.

Heat age testing was conducted on M-10 x 1.5 phos-oil bolts and nuts. Assembled fasteners were aged at 200°C for 500 hours and allowed to cool to room temperature before breakaway test.

Hot Strength testing was conducted on M-10 x 1.5 phos-oil bolts and nuts. Assembled fasteners were heated to 200°C for 2 hours and tested for breakaway strength at the elevated temperature.

General Information

Storage

Fasteners coated with product are to be stored in a cool and dry location at temperatures between -10 °C to 35 °C. Optimal storage is 25±4°C.

Note

The data are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is recommended that the product be tested in the application for which it is to be used.

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Technical data contained within this document is intended for reference only
For assistance and recommendations on specifications for this product, contact ND Industries

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