



Product Description

ND Microspheres Acrylic AA1095/AA1096 are pre-applied film adhesives, pre-applied to fasteners to make them self-locking and self-sealing. They can be factory applied to either internal or external threads and will remain inert on the fastener until assembly. The acrylic microcap resin fills the voids of the threads and cures, locking and sealing the assembly. ND Microspheres AA1095/AA1096 exhibits excellent strength on plated finishes.

Applications:

ND Microspheres AA1095/AA1096 prevents vibration loosening of threaded assemblies including:

- Chassis bolts
- Intake manifold bolts
- Transmission bolts
- Axle bolts

Performance of Cured Material:

Test	Typical Value
Prevailing on-torque	0.24 N-m
Breakaway torque	24 N-m
Temperature Range	-65°F to 300°F (-54°C to 150°C)
Cure 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)

Test	Typical Value
Engine oil @ 150°C	24 N-m
Brake fluid @ 150°C	13 N-m
ATF @ 150°C	22 N-m
ethylene glycol @ 120°C	27 N-m
Water @ 100°C	30 N-m
Gasoline @ 25°C	30 N-m
Diesel fuel @ 25°C	30 N-m
15/85 Methanol/ Gasoline @ 25°C	28 N-m
Ethyl Alcohol @25°C	33 N-m
Cyclic Test	34 N-m
Heat age	35 N-m
Hot Strength	16 N-m

Immersion testing was conducted using M-10 x 1.5 phosoil bolts and nuts. Assembled fasteners were submerged in each fluid for 500 hours at the temperature. Assemblies were cooled 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 1 hours, -30°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 135°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 phosoil bolts and nuts. Assembled fasteners were heated to 135°C for 2 hours and tested for breakaway strength at the elevated temperature.

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.