

DiamonDyze Test	Results
Safety	Non Hazardous and contains no hazardous materials such as Sulfuric Acid or Chromic Acid. A colored dye has been added to distinguish DiamonDyze from water.
Drop Impact (ASTM D 2794) 2 lb. weight	2 lb. weight dropped 16" with no damage . The non treated part showed a 0.1490 indentation and the DiamonDyze showed a 0.1475 indentation. Both treated and untreated showed no damage but the untreated showed stretch marks in the aluminum near the outer circumference indicating a softer surface vs the treated plate.
Gloss	This will vary depending on surface finish. DiamonDyze does not change the appearance of the part. Clear DiamonDyze is water clear and does not change the appearance of the part after anodizing.
Salt Spray ASTM B 117	8400 hours plus, on 6061 with no change at end of test. 2000 hours plus, on 2024 at .0006" Type II and NO seal and no failure. 336 Hours on 2024 at .0001" Type II with a seal and no failure.
Chemical *	A 24 hour soak in both an Alcohol/MEK blend and Aircraft Stripper (contains Methylene Chloride) shows no effect .
Oven Off *	12 hours no effect .
Thermal Resistance	DiamonDyze is showing @ a 10% reduction in the rate of thermal transfer (insulator).
Surface Roughness Ra	Prior to Type II DiamonDyze the test panel had a Ra of 2.791 (6061 aluminum non polished). After DiamonDyze the same panel had a Ra of 1.782 .
Ford APGE Accelerated Corrosion Test	345 cycles (40 cycles is pass)
Gravelometer (GM)	5A at .0006 Type II (red) on a .032 test panel
Resistance to Grit Blast	"I had Fireball try to etch the DiamonDyze coating with 120 grit aluminum oxide at 120 psi. Very little of the coating was removed. The technician commented that grit blasting DiamonDyze was similar to etching hard chrome plating . The grit particles were starting to glow red". (NM Engineered Solutions, 965 Brucedale Ave., E. Hamilton, Ontario L8T 1M3 Canada).
Conductivity	Non Conductive.
Accelerated Salt Spray**	Over 10,400 hours with no change as of 1/1/2015 on 6061
Humidity**	Over 33,400 hours with no change as of 1/1/2015 on 6061

* DiamonDyze will not change the resistance of a treated piece in certain tests such as Nitric Acid testing. These tests are directly impacted by other treatments such as seal used. DiamonDyze will not negatively impact a part as to chemical, corrosion or UV.

** Constant direct spray of a 5% salt solution for 9 hours followed by 15 hours in the sealed test chamber with no spray, followed by 9 hours of direct spray. Repeated for 1 week, then the chamber is kept sealed through the weekend, experiencing normal temperature variations and spray is resumed at the beginning of the next week. This procedure has shown a significant acceleration of oxidation formation compared to normal ASTM 117B conditions, as it more closely mimics real world exposure and allows for salt accumulation on a part while no spray is occurring.

DiamonDyze™ New and Advanced Technology

