

## AST Alba D45 Test Results

TEST METHOD	DESCRIPTION	REMARKS / RESULTS	TESTED BY
ASTM B-117 (BS-3900-F4)	Corrosion resistance test. The test was performed on a bright red panel. This test provides a controlled corrosive environment, which produces relative corrosion resistance information. The salt spray (fog) duration was for 1000 hours.	No loss of gloss, rusting, blistering or other failure.	Michael Brett & Partners Johannesburg RSA
ASTM D-3359	Crosshatch adhesion test. A lattice pattern with either six or eleven cuts in each direction is made in the film to the substrate, pressure-sensitive tape is applied over the lattice and then removed, and adhesion is assessed qualitatively on the 0 to 5 scale.	Result: Rating of 5 This is the best rating that can be obtained using this method.	Bodycote Technitrol Inc.
ASTM D-2246	Humidity-Thermal cycle cracking test. This test method provides an accelerated means of determining the tendency of a coating to fail by cracking when exposed to humidity-thermal cycling. The samples were tested for 10 hot and cold cycles ( 23 <sup>o</sup> C to 38 <sup>o</sup> C) at 100% relative humidity.	No cracking. No blistering. No peeling.	Bodycote Technitrol Inc.
BS 3900-F3 & ASTM G-26	BS (British Standards) Artificial Weathering Test. Accelerated weathering test I xenon arc Both these tests consist of a cyclical test of wet conditions, dry conditions and ultraviolet exposure designed to represent exposure to variable realistic climate conditions. The test samples were exposed for 1000 hours.	No blistering. No peeling. Very good gloss retention.	Peter J. Rice Associates & Bodycote Technitrol Inc.
ASTM D-4060	Abrasion resistance, Taber Abraser method. Abrasion resistance is calculated as loss in weight at a specified number of abrasions cycles, as loss in weight per cycle, or as number of cycles required to remove a unit amount of coating thickness. Test samples were subject to 100 cycles of 1000g load on CS-17 abrasive wheels.	Average loss 0.017g at 100 cycles.	Bodycote Technitrol Inc.

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ASTM D-522	Bending test. The coated samples are bent over a mandrel and the resistance to cracking of the coating is determined (from 0 <sup>0</sup> to 135 <sup>0</sup> ).	No cracks @ 135 <sup>0</sup> No peeling @135 <sup>0</sup>	Bodycote Technitrol Inc.
ASTM D-96	Water Vapor Transmission (WVT) of coating. This test is important in applications such as concrete and masonry surfaces.	9.4 perm (inch-pound) or 5.37 x 10 <sup>-7</sup> g/pa*s*m <sup>2</sup> considered a good value for a breathable coating.	Bodycote Technitrol Inc.
ASTM D-3980 & EPA-24	Volatile Organic Compounds (VOC). The VOC analysis was carried out in accordance with EPA reference method 24 and ASTM method D-3980.	237g/liter VOC (Including Cross-linker)	Lanark Coating Services
ASTM D-1308	Resistance to Atmospheric and Acid pollutants. This test determines the effect of household chemicals on coated surfaces resulting in alterations in the surface, such as discolouration, change in gloss, blistering, softening, swelling, loss of adhesion, or other changes. <u>Chemicals tested:</u> Ethyl Alcohol 59% volume. Acetic Acid 10% volume. Hydrochloric Acid 5% volume. Soap Solution 5% volume. Detergent Solution 5% volume. Oils, fat, lubricating grease, coffee and organic solvent (pentane).	No noticeable effect. No noticeable effect. No noticeable effect. No noticeable effect. No noticeable effect. No noticeable effect.	Bodycote Technitrol Inc
Gardner Impact Test	Coating sample subjected to 5 joule impact test.	No cracks. No peeling. Excellent results. A typical electrical transformer requires less than 4 joules.	Bodycote Technitrol Inc.