


MEMORANDUM

TO: Mr. John Ryan
Armor Auto

FROM: Dr. Christian Clausen III
Professor of Chemistry

DATE: January 14, 2005

RE: Studies conducted on Armor Coat PPC911 Coating



As you know for the past three months I have been conducting performance studies on your Armor Coat clear after market paint protection coating. Specifically your request through the SATOP program was to get a second opinion on your product's stability and adhesion to a new car painted surfaces. Also, there was a request to determine if the coating is stable over time as the vehicle ages and that the product is functional in both cold as well as warm climates.

The first tests that were conducted consisted of a microscopic examination of the test panel that you sent to me that was coated with the Armor Coat product. The micrographs that were taken are presented in Appendix A. The three micrographs are listed as G4, G5, G6, and are taken at different magnifications, with the magnification listed on the micrograph. The white spots that you see in each of the micrographs correspond to opaque pieces of the polymer that are embedded in the polymer film. Upon high magnification such as in G6, holes can be seen in the surface of the polymer film. These holes are all approximately 45 micrometers in diameter. From the sample that you sent to me it was not possible to determine if the opaque pieces of polymer and holes in the surface were caused by your spraying procedure or is characteristic of the way that this polymer cures.

As a reference samples of metal parts coated with factory finished clear coat were obtained from two different General Motors vehicles and one from a Chrysler vehicle.