



Dealing with “Fallout”

In recent months a small number of vehicle wrap customers located in various industrialized areas have experienced a dull rust-colored surface condition sometimes known as “fallout”. This has occurred to OEM paint finishes and wrapped vehicles alike. ORACAL has determined that the likely cause is an environmental problem associated with fossil fuel burning facilities in these areas...a condition that is especially problematic in low-lying valleys and other areas where the pollutants often become concentrated in stagnant air.

These pollutants, most likely sulfur dioxide, bond with water vapor, forming an acidic molecule. When the dew point is reached in the area, dew is deposited on the vehicle surfaces. What was acidic vapor is now acidic dew. The acidic dew etches the surface of the PVC film if the dew is left on the vehicle for prolonged periods of time. Because it is dew, and not rain, the acid is fairly concentrated and begins to etch into the surface of the laminate.

Once the dew has evaporated from the vehicle, the dew leaves deposits of dust, minerals etc. from the water vapor in the etched surface of the PVC, thus causing the rust colored appearance. The acid continues to erode the laminate creating a pock-marked surface which further exacerbates the problem by increasing the surface area for the acid to collect and erode and increases the dust and mineral deposits.

Suggestions for Sign Shops:

- Prepare a Vehicle Wrap Care Guide with the points below
- Educate Wrap owners of the importance of care
- Modify warranties with regards to fallout to avoid liability issues.

Suggestions for Vehicle Wrap Owners in this area:

- Rinse the vehicle every morning to minimize deposits
- Wash the vehicle at least once a week with a very mild soap. Ask wrap installers for a vehicle wrap care guide.
- Use a Teflon type polish designed for vehicle wraps to help protect the surface and gloss. Follow manufacturer’s directions and application frequencies.

These are only suggestions and may or may not prevent vehicle wrap damage due to the “fallout” phenomenon. Oracal USA attributes “fallout” damage to environmental conditions which are not related to the manufacturing process, print production, lamination or installation. We therefore do not classify this as a product defect for warranty purposes.