



The Chemical Company

TECHNICAL SERVICE BULLETIN

Refinishing New OEM Parts

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The BASF Technical Call Center is frequently asked if it is acceptable to apply basecoat directly over new OEM replacement parts that are supplied with only electro deposition primer (e-coat). While there is more than one type of e-coat, making one standard answer difficult, the best process, if one does not know the chemistry of the e-coat, is to apply either a primer-sealer or primer surfacer prior to the refinish basecoat.

To clarify this position, it is necessary to describe the four common types of e-coat.

Anodic vs. Cathodic – The primary difference between these two approaches is where the e-coat is deposited and the resulting composition of the film. With anodic e-coat, there are significant amounts of iron deposited in the e-coat film. As a result, anodic e-coat does not offer the level of corrosion protection that cathodic e-coat does, and is used primarily on interior parts.

Epoxy vs. Acrylic – The difference between epoxy and acrylic can be simplified to epoxy for corrosion and chemical resistance vs. acrylic for UV durability and appearance.

As a result, most exterior automotive applications tend to utilize cathodic epoxy e-coat in an attempt to achieve optimum humidity and corrosion resistance. However, over time, the epoxy resin breaks down with exposure to UV radiation, resulting in adhesion failure and subsequent corrosion. To ensure that the e-coat is protected against UV exposure, a fully opaque (to UV) film must be applied. Refinish basecoat by itself does not offer significant UV resistance; its purpose is color match to the rest of the vehicle. And the urethane clearcoat is usually applied only in a thickness that provides protection to the basecoat, but is not enough to prevent any UV from reaching the e-coat. This is where a urethane surfacer or sealer becomes important.

In summary, to achieve the same quality on a new part as was supplied by the OEM manufacturer on the original vehicle, it is important to apply a primer sealer or surfacer to properly prepared, new e-coated parts prior to application of the basecoat.

At BASF - The Chemical Company, our goal is to help you make *your* business better. If you have questions on this or any other BASF Automotive Refinish products or procedures, you may contact the BASF Technical Service Department at (800) 758-BASF (2273), or visit our website at www.basfrefinish.com.

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