

ASTM G154-06 & G151-00: UV Testing

The UV testing was performed on **ecomère** by Touchstone Labs in Tridelphia, WV, again at the request of Southern Company, Inc. before sending it to EPRI. This was a 30 day test. The typical cycle during this test is 8 hours UV at 140 degrees F followed by 4 hours condensation at 122 degrees F. **ecomère** was tested against a leading polyurethane that requires a UV blocking top coat whenever it is applied. The polyurethane coated test coupon was supplied to us by a pole manufacturer and the UV blocker was not applied before this test. **ecomère also did not have an added UV inhibitor at the time of this test.**

At the end of the 30 days, the coupons were subjected to a sheen test. The reflectivity of the unexposed side of the coupon was compared to the exposed side to measure the UV damage. The table below shows the results.

720 Hour UV Test by Touchstone Labs – Tridelphia, WV (ASTM G154-06 & ASTM G151-00)

Sample	Unexposed Gloss	Exposed Gloss	% Loss
ecomère	38.7%	35.5%	3.3%
Polyurethane	27.1%	0.5%	98.2%

Before the second round of testing at EPRI, a UV inhibitor was added to the **ecomère** formulation. The results of this second round of testing showed improvement in post UV testing adhesion and in other testing areas as well.