UV PROCESS SUPPLY, INC.

Thank you for your interest in UV LED Technology from UV Process Supply, Inc.

Please note that UV LED technology is unique; and therefore the curing parameters will not necessarily conform to known parameters and/or technical specifications relative to UV Curing.

Using the TFC-9000 we have been able to characterize the curing profile of the material with each of the wavelengths we have available. From this profile we are also able to identify the amount of time necessary to cure the formulation. With this data, combined with the speed of the process (parts per minute) we are able to provide a quotation that we know will work.

This being said, UV Process Supply has a policy that requires testing of all UV curable inks, coatings, and/or adhesives with our TFC-9000 prior to making any recommendations or providing a quotation. For a simple analysis to determine a suitable UV LED Wavelength for Curing there is no charge.

To perform a more detailed analysis which includes charting all exposure curves and a written report of our analysis there is a $750.00 Lab Fee. For advanced testing requirements we would provide a formal quotation for Custom lab work. A portion of our Lab fees are applicable as a credit toward your UV LED Curing equipment purchase.

In the event that any LED product is purchased from UV Process Supply, Inc without the chemistry first being validated by our lab for your application it is non-returnable and the warranty is void. In other words, equipment sold without verification of chemistry is sold AS-IS.

A few general notes regarding UV LED Technology:

- UV LED's are monochromatic or single wavelength. An LED that is labeled as 415nm emits only 415nm +/-5nm. There are currently 6 wavelengths of LED available; 450nm, 415nm, 405nm, 395nm, 375nm, and 365nm.
- We have found that 99% of the information provided within a UV curable products technical data sheet does not apply to UV LED technology. An example would be as follows: We received a sample of Loctite 3971 from a customer. The cure information on the TDS stated that using a Fusion® "D" light source emitting 100 mW/cm² at 365 nm the adhesive will cure in <5 seconds. After evaluation with the TFC-9000, we learned that a UV LED emitting 36 mW/cm² at 415nm cured the adhesive in <2 seconds. Not only were we able to cure the adhesive faster with less energy, we cured it using a wavelength within the safe visible UV spectrum.
- We have discovered that the curing reaction with UV LED is extremely linear and predictable. Once a proper wavelength is determined, we can easily calculate the specific size LED system you actually require based on your production speed and product size.

Please contact UV Process Supply, Inc to receive an RA number prior to submitting a sample for testing. The RA will identify who you are, what you sent, and the type of testing required. Without this RA# your testing can be significantly delayed. Always include an MSDS and Technical Data if known. Additionally, a brief note describing how the product is typically applied would be very useful. This allows us to test within the same application parameters that you require.