



Electroluminescent Material Specialists

Bandgap Tutorials:

CTC Conductivity Enhancer

The CTC Conductivity Enhancer is a formulation designed by Bandgap Ltd specifically to improve the conductivity of the Lumilor CTC (Conductive Top Coat).

Test results have demonstrated as much as a 10x improvement in the conductivity, lowering the surface conductivity from between 4 to 25k Ohm/sq, down to as low as 1k Ohm/sq, however we are comfortable in claiming that at minimum, this additive will increase conductivity of the LumiLor CTC by a factor of 5 times.

To secure optimum conductive performance the recommended ratio of enhancer to CTC is 15ml of Enhancer to 100ml of CTC. A lower ratio can be used, which will still provide some increased conductivity.

The 35ml bottle of CTC Conductivity Enhancer is sufficient to mix with a standard 8 oz / 225ml bottle of LumiLor CTC, however we would suggest that you undertake an initial small test run in the first instance to understand how the addition of the CTC Conductivity Enhancer will affect the application and drying of the CTC

Because you are adding additional fluid to the CTC, it will either require extra time for the CTC to dry or will require some extra application of a heat gun to fully evaporate the material. We recommend that you force dry the CTC using a heat gun, as the addition of the CTC Conductivity Enhancer will considerably increase drying time at room temperature, however this may not mean a change of process as the CTC is typically dried using a heat gun anyway.

The formulation will solidify at temperatures under 20 Degrees Celsius and can be liquefied by warming the bottle in hot water or leaving in a warm room. This is perfectly normal.

Once the CTC Conductivity Enhancer has been added and dispersed in the CTC it will not then solidify within the mixture.