# **CHEMLINQ TC-8090** Clear Optical molding compound



- High reliability backlight LED
- Anti moisture
- Low blue ray decay

TC-8090 is a high-performance optical epoxy specifically developed for white decorative and high reliability backlight LED encapsulation, just like TC8030 and TC8060. This mono-component epoxy achieves superior adhesion performance and great transmittance. It is an anti moisture formulation that is stable at high temperatures combining good package performance and long life.

TC-8090 is able to offer low blue-ray decay for outdoor LED applications and overall great light performance with >90% transmittance at 450nm. This is a developmental product, similar or superior to competitive solutions such as XX814, XX1000 and XX97. It is a highly reliable product that passes reflow thermal cycling test at 85°C @85% relative humidity and its light decline is <10% in RT/5mA @1000hrs.

## **Specifications**

Property	Value	Unit
Specific Gravity	1.28	-
Spiral flow	150 - 250	cm
Gel Time	20 - 40	sec
Hardness	86	Shore D
Glass Transition temperature	140	°C
CTE alpha 1	74	ppm/°C
CTE alpha 2	200	ppm/°C
Flexural Strength	140	N/mm2
Flexural Modulus	3600	N/mm2
Transmittance @450nm	>90	%
Refractive Index @589nm	1.53	-

Property	Value	Unit
Preheat Temperature	40 - 80	°C
Mold Temperature	140 - 160	°C
Transfer pressure	10 - 40	kgf/cm2
Transfer Time	20 - 50	Sec
Curing Time	3 - 5	Min
Post Mold Curing	4 - 6	Hours

### **Storage and Handling**

Store in a ventilated, dry, and clean environment below 5°C. The product must be thawed at Room temperature for 16-24 hours and used within 24 hours after thawing. Under proper storage conditions, the compound has a shelf life of at least 6 months.

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