

# LEXAN™ CXT RESINS

Crystal clear, high flow and high temperature resistant resin

## CHALLENGE

Develop a **transparent** and **crystal clear** material solution for **cost efficient production and assembly** of large build number of transparent lenses. Thermoplastic resins can offer cost efficient production of large build numbers versus thermoset, but often do not offer sufficient heat for soldering (e.g. PMMA or PC resins) or amber color (e.g. PEI or PSU resins).

## SOLUTION

The new LEXAN™ CXT resins offer a unique balance of:

- High heat (Tg up to 195°C)
- High flow in broad processing window without discoloration
- High transmission in visible (> 87% at 3 mm) and IR regions (> 89% at 3 mm)
- High refractive index (nD > 1.60)
- Stable color and transmission during part life time (heat, humidity, light)

## FEATURES

### HIGH HEAT

#### BENEFITS



Assembly via (cold) soldering without distortion



Over-molding with second resin



Performance retention during part life time

### OPTICAL



Optimal light transmission



Consistent & stable optical properties



Design freedom for optical performance

### HIGH FLOW



Enhanced freedom in tool design



Cost & time efficient molding processes



Lower reject rates & defects



Improved productivity and/or lower system cost while retaining quality

# LEXAN™ CXT RESINS

## POTENTIAL APPLICATION SPACES



### FLASH LENS

Soft reflow and heat aging  
Low abusive Yellowness Index  
High flow for complex tooling



### SENSOR LENS

Low temperature soldering  
High transmission at VIS and IR wavelength  
High flow for complex tooling



### HIGH HEAT FILMS

(E.g. touch screen sensor)

Annealing at high temperature  
High transmission and low retardation  
Extrusion with low deposit



### AUTO CAMERA LENS

Heat ageing at 140°C  
High transmission and low initial Yellowness Index  
High refractive index



### RESPIRATORY MASKS

Over-molding with second resin  
Water clear and consistent color  
FDA / food compliant



### AUTO INNER LENS

High heat for part requirements  
Tight color tolerance  
Low color shift after molding

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