

MATERIAL SOLUTIONS FOR LED LIGHTING

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KONDUIT™ COMPOUNDS FOR HEAT SINKS

- Inherent electrical isolative – pass 6kv breakdown test
- Thermal conductivity up to 15 W/mK
- Increased design freedom of injection molding
- Potential weight reduction
- Better productivity compared to die-cast aluminum
- Can comply with UL94 regulations
- Potential system cost reduction through improved engineering of the part
- Potential to eliminate painting process due to light or dark colors availability
- Effective heat management through demonstrated predictive engineering



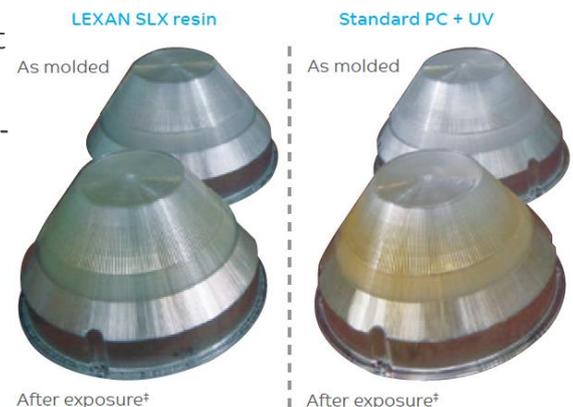
LEXAN™ XHT AND NEW TRANSPARENT LEXAN CXT FOR HIGH HEAT APPLICATIONS

- Heat resistance ranging from Vicat B120 of 150 to 190°C
- Broad processing window without compromising physical or optical properties – Potential advantages in tool design and productivity
- Excellent practical impact even at low temperatures
- Direct metallization for cost efficient secondary operations
- Low color and high transmission (especially) for LEXAN CXT resin grades
- Good optical and physical property retention after prolonged high temperature heat ageing – Potential for use in high voltage LED lighting.



LEXAN SLX FOR HIGH PERFORMANCE UNDER THE SUN

- Excellent Inherent long term weatherability - up to 10 years of direct UV exposure
- Heat stability - retention of properties after heat ageing
- Better yellow index and haze after UV exposure - improved light transmission retention versus standard UV-stabilized polycarbonate resin
- Low color shift for opaque parts
- Can be repairable after scratch
- Improved scratch, staining resistance and chemical resistance versus standard polycarbonate



[‡]In hot chamber, 175W MH lamp for 2900 hours @ 120 °C on refractor – 55 °C ambient

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THERMOCOMPT™ AND VERTON™ STRUCTURAL COMPOUNDS FOR LUMINAIRES

- Flexural modulus (2mm/min) up to 33.8 GPa
- Improved stiffness and fatigue resistance
- Low shrinkage
- Dimensional stability
- Potential weight reduction versus standard solutions (aluminum, steel)
- Potential system cost reduction through part redesign
- Wide range of Carbon fiber/long glass fiber compounds available
- Can comply with IEC62262 IK ratings
- Effective structural performances through demonstrated predictive engineering



FARADEx™ COMPOUNDS FOR SMART LIGHTING ELECTRONICS SHIELDING

- High shielding properties ranging from 40 dB to over 80 dB
- Can eliminate the need for secondary coating steps in order to achieve shielding performance
- Low shrinkage + dimensional stability
- Potential weight reduction versus metal
- Possibility to tailor-make material performance
- Wide range of base resins available
- Availability of structural grades

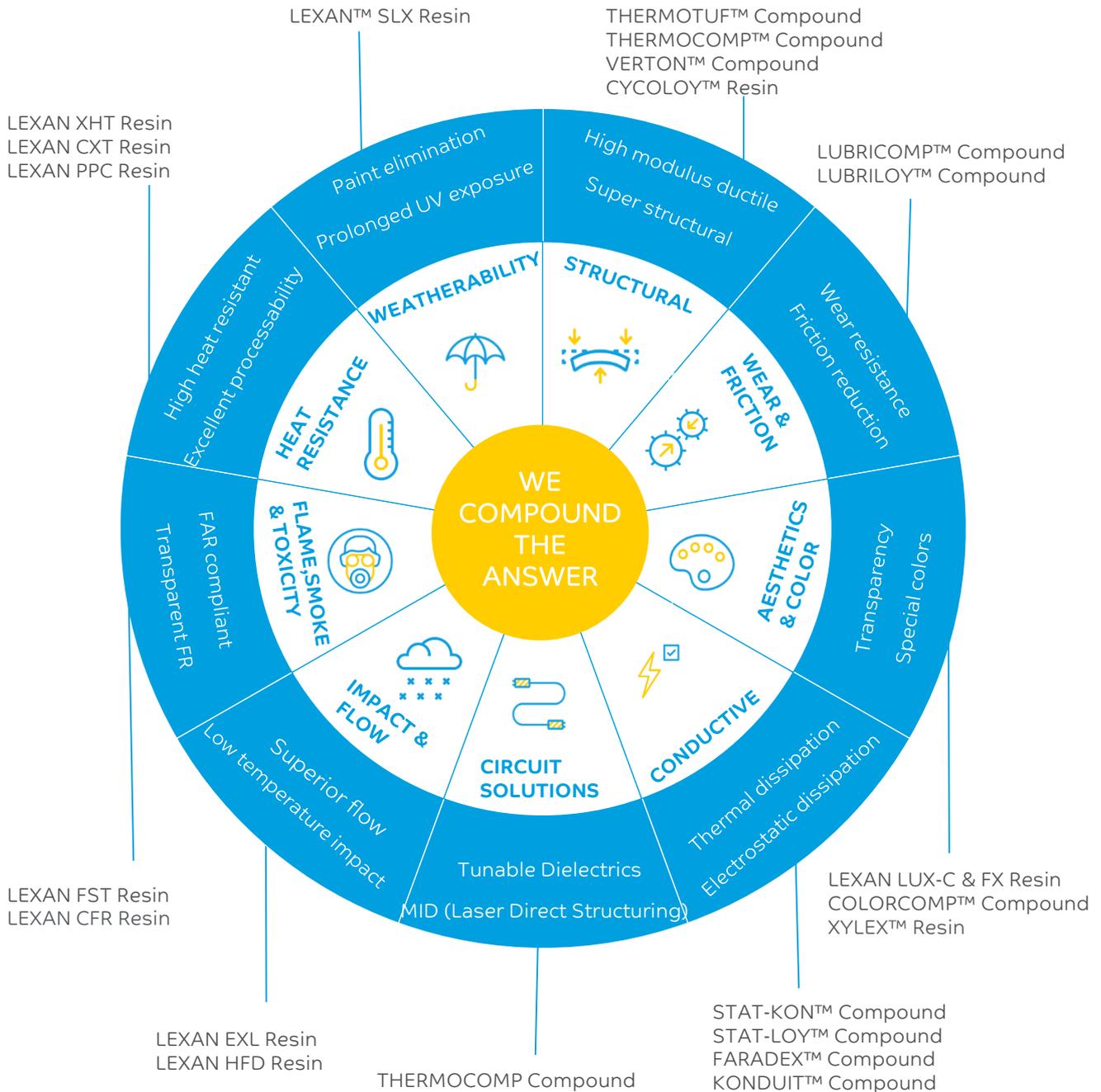


THERMOCOMPT™ COMPOUNDS LDS MATERIALS SLX FOR SMART LIGHTS ANTENNA INTEGRATION

- LPKF Laser Direct Structuring capability available on a wide range of base resins
 - Possibility to integrate simple electronics and antennas on plastic surfaces
 - Possibility to reduce the size of your smart light device
 - Potential system cost reduction due to miniaturization and assembly-costs saving
 - May align with standard plating technologies (following laser surface activation)
 - Improved design freedom, no layout specific tooling required
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SPECIALTY COMPOUNDS & LEXAN™ COPOLYMER RESINS

Over 50 years of innovation in thermoplastic compounding enables SABIC's specialty compounds to offer extensive materials with a broad portfolio.



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