Bright Future for LDS with New Custom-Colorable LNP Thermocomp Compound

ECN Europe

The Innovative Plastics strategic business unit of Sabic announced the first new custom-colorable LNP Thermocomp thermoplastic compound for laser direct structuring (LDS) to save space and reduce the weight of mobile devices. LDS is a sophisticated process for integrating electronic and mechanical functionality into a single module, such as mobile phone and notebook antennas.

Previously, only black plastic materials were available, typically forcing designers to confine LDS components to the device's interior. The introduction of the company's new colorable LNP Thermocomp [1] compound vastly expands device design options. This new material introduction demonstrates Innovative Plastics' pioneering leadership in advanced technologies for the design and manufacture of tomorrow's portable devices.

[2]

Mobile Device Housing with Integrated Electronic and Mechanical Functionality using SABIC's New, Colorable LNP Thermocomp Compound and LDS Technology. Picture: Sabic

"LDS is a powerful technology for achieving greater miniaturization in mobile phones, notebooks and tablets, but until now, it had aesthetic limitations," said Cathleen Hess, global product marketing director, LNP, Innovative Plastics. "By developing a colorable material for LDS applications, Innovative Plastics has improved upon an already successful technology."

Innovative Plastics has worked with LPKF Laser & Electronics AG – an industry leader in LDS technology – for a number of years, first introducing the original black material technology solution. With the addition of Innovative Plastics' new colorable LNP Thermocomp compound and LPKF's LDS expertise, the companies are uniquely positioned to help drive customer growth.

"This breakthrough from Innovative Plastics opens the door to many new possibilities for designing molded interconnect devices using our patented laser technology," said Nils Heininger, vice president Cutting & Structuring Laser, LPKF Laser & Electronics. "The ability to integrate antennas, sensors and other functionality into the housing of a device can help drive greater part consolidation and enable slimmer, smaller designs. Moving from basic black to custom colors is a huge step forward and promises major competitive advantages for our joint customers."

LPKF's LDS technology uses specialized lasers to scribe the circuit layout of a component onto a molded plastic part. The layout is then plated, with the resulting circuit pathway conforming exactly to the laser pattern. Innovative Plastics' new colorable LNP Thermocomp compound has been validated and certified by LPKF for use on their equipment. Potential application areas include integrated light emitting diodes (LEDs) and connectors.

LNP Thermocomp Offers Top Performance and Aesthetics
SOURCE [3]

Source URL (retrieved on *07/28/2014 - 2:31am*):
http://www.ecnmag.com/blogs/2011/06/bright-future-lds-new-custom-colorable-lnp-thermocomp-compound

Links:
[1] http://www.sabic-ip.com
[2] http://ecneurope.files.wordpress.com/2011/06/kl-sabic-lds-ippr179a_454499.jpg
[3] http://ecneurope.wordpress.com/2011/06/14/bright-future-for-lds-with-new-custom-colorable-lnp-thermocomp-compound/