

# AUTOMOTIVE CAMERA SOLUTIONS FOR ADVANCED DRIVER ASSISTANCE SYSTEMS (ADAS)

Automotive cameras have experienced widespread adoption and are utilized to support various safety and security features ranging from back-up view assistance to ADAS features such as Adaptive Cruise Control (ACC) for automated speed adjustment. The automotive sensor suite continues to evolve and cameras remain an integral part of future technologies like fusion-based systems, which combine cameras with radar and/or LiDAR sensors in one module. SABIC can assist you through both design efficiency and advanced thermoplastic material selection to adapt to this ever changing landscape.

As fusion based systems continue to evolve, the automotive camera is playing a more integral role in the advanced driving assistance system and they will require high performance material solutions that can provide various benefits throughout the unit. For example, we offer highly UV stable and low warpage materials for top covers to help windshield based modules remain intact and dimensionally

stable and high heat materials to address the needs of inner module housings and lens systems. Our broad portfolio of materials can also aid in lens alignment, metal replacement, and moisture uptake management through laser welding capabilities. SABIC looks forward to working with you to help solve the needs of your camera modules of today, while helping you design for the future ADAS sensor suite.

# SABIC SOLUTIONS FOR CAMERA SENSOR SYSTEM APPLICATIONS

#### TOP COVER -

• LNP™ THERMOCOMP™ compound (chemical resistance, rigidity, low warpage, UV stability)

NORYL<sup>™</sup> resin
 (UV property stability, low warpage, dimensional stability, low moisture uptake, laser welding)

• LNP™ KONDUIT™ compound (thermal management)

## IR LENS

ULTEM™ / EXTEM™ resin
 (IR transparent, high heat & chemical resistance, UV resistant, reflow soldering capable, dimensional stability)

#### LENS BARREL -

ULTEM™ resin
 (low outgassing, dimensional stability, opaque or IR transparent, chemical resistance, high heat resistance)

## MODULE HOUSING

- LNP<sup>™</sup> THERMOCOMP<sup>™</sup> compound (dimensional stability)
- NORYL™ resin (dimensional stability)
- ULTEM™ resin (dimensional stability, high heat resistance)

# LENS SPACER

• ULTEM™ resin (dimensional stability, high heat and chemical resistance, low CTE)

#### BOTTOM COVER

- LNP™ THERMOCOMP™ compound (chemical resistance, rigidity, low warpage)
- LNP™ KONDUIT™ compound (thermal management)
- LNP™ FARADEX™ compound (EMI Shielding)
- NORYL™ resin (dimensional stability, low warpage, low moisture uptake, laser welding)





# **CONTACT DETAILS:**

#### **AMERICAS**

SABIC Americas 2500 City West Boulevard Suite 100 Houston, TX 77042 USA T +1 713 430 2301

**LNP™ COMPOUND** Jeff Xu <u>Jeff.Xu@sabic.com</u>

NORYL™ RESIN Stacy Cashin stacy.cashin@sabic.com

**ULTEM™ RESIN** Robert Bonzo Robert.Bonzo@sabic.com **ASIA PACIFIC** 

SABIC Shanghai 2550 Xiupu Road, Pudong Shanghai 201319 China T +86-21-2037-8188

**LNP**<sup>™</sup> **COMPOUND** Tatsuya Uchiyama <u>Tatsuya.Uchiyama@sabic.com</u>

NORYL™ RESIN Sung Bae Choi sung-bae.choi@sabic.com

**ULTEM™ RESIN** Chunhong Ren <u>Chunhong.ren@sabic.com</u> **EUROPE** 

SABIC Bergen op Zoom Plasticslaan 1 4612 PX Bergen op Zoom The Netherlands T +31 164 292 911

LNP™ COMPOUND Willem Hamersma Willem.Hamersma@sabic.com

NORYL™ RESIN Marcel Verhagen marcel.verhagen@sabic.com

**ULTEM™ RESIN** Bernd Grammer <u>Bernd.Grammer@sabic.com</u>

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