

## Highly Reflective ABS for Optimal Light

ELIX® ABS Highly Reflective are special white-pigment ABS grades with a high reflectance and at the same time high light-tightness for lighting applications. For reflectors, e.g. in speedometer displays or the segment displays of washing machines, precisely bounded, opaque surfaces are required. The ABS high-reflective grades are light-tight even for thin wall thicknesses and prevent light overflowing into other light chambers, e.g. in signal, warning, indicator and functional luminaires. As a result, only the light of the activated light chamber is illuminated and the luminosity of the illuminated symbols is significantly improved by the high light reflection.

For lighting concepts, e.g. for ambient lighting in the automotive industry, a reflector made of ELIX® ABS is helpful in addition to the light source, light diffuser and/or light guide for an attractive lighting design. With a reflectance of up to 92 percent, the luminosity of the LED is significantly increased and the luminous surface is homogeneously illuminated.

## Plastics and Light

Due to its photometric properties, high heat distortion temperature and excellent mechanical characteristics, the highly reflective ABS is the ideal material, e.g. for reflectors, LED housings, light guides, segment displays or display systems. Benefit from these special properties for your lighting applications in the automotive and household appliance industries as well as in lighting technology.



*Behind the segment display, there is a reflector with numerous light chambers. ELIX ABS Highly Reflective prevents light from overflowing between the displays. At the same time, the special white-pigmented ABS ensures uniform and optimum illumination of the displays.*

- **Highly reflective for optimum luminous efficacy**
- **Light-tight for low component wall thicknesses**
- **Heat distortion temperature up to +112 °C as per Vicat B50**
- **Very good flow properties**
- **Excellent dimensional stability**
- **High impact strength**



*Complex reflectors are also required for modern speedometers in order to direct the light in a targeted manner and to optimally illuminate symbols. ELIX® ABS Highly Reflective offers, in addition to its photometric properties, the corresponding material properties for this demanding application.*

## People. Think. Plastics.

Together with you, we consider plastic solutions around components for tomorrow's lighting applications. Benefit from our application-specific advice. We implement your requirements with the right material – including service and tailor-made logistics concepts.

## From the Idea to the Start of Production

In your project, do you need a partner for the development, design, calculation and simulation up to trial and test, as well as for commercialisation and qualification? Our sister company M.TEC Engineering (M.TEC Ingenieurgesellschaft für kunststofftechnische Produktentwicklung mbH) solves even your most demanding challenges. As a specialist for light simulation and light guide development, M.TEC Lighting develops and optimises complete lighting concepts from your lighting

ideas. Light simulation is used, for example, to investigate the means and costs by which desired lighting effects can be achieved within the available installation space.

Would you like to get to know M.TEC and its expertise? Join the discussion!

## High Light Reflection and Light-tightness

Grades	Color	Vicat softening temperature 50 N, 50 °C/h [°C] ISO 306	Melt volume flow rate MVR 220 °C/10 kg [cm <sup>3</sup> /10 min] ISO 1133	Charpy notched impact strength 23 °C [kJ/m <sup>2</sup> ] ISO 179-1A	Density (g/cm <sup>3</sup> ) ISO 1183	Reflection (%) DIN 5033	Transmission 0.5 mm (%) ISO 13468	
ELIX <sup>®</sup> P2H-AT 011435	ABS	White	98 °C	38	15	1.09	85	< 0.5
ELIX <sup>®</sup> H605 011214	ABS	White	100 °C	25	14	1.12	85	< 0.5
ELIX <sup>®</sup> ULTRA HH 4115 HI 010515	ABS+PC	White	112 °C	15	55	1.19	92	< 0.5

## More Products on Request!

Do you need a reflective and light-tight ABS for your lighting application? Then let us drive your project forward together.

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