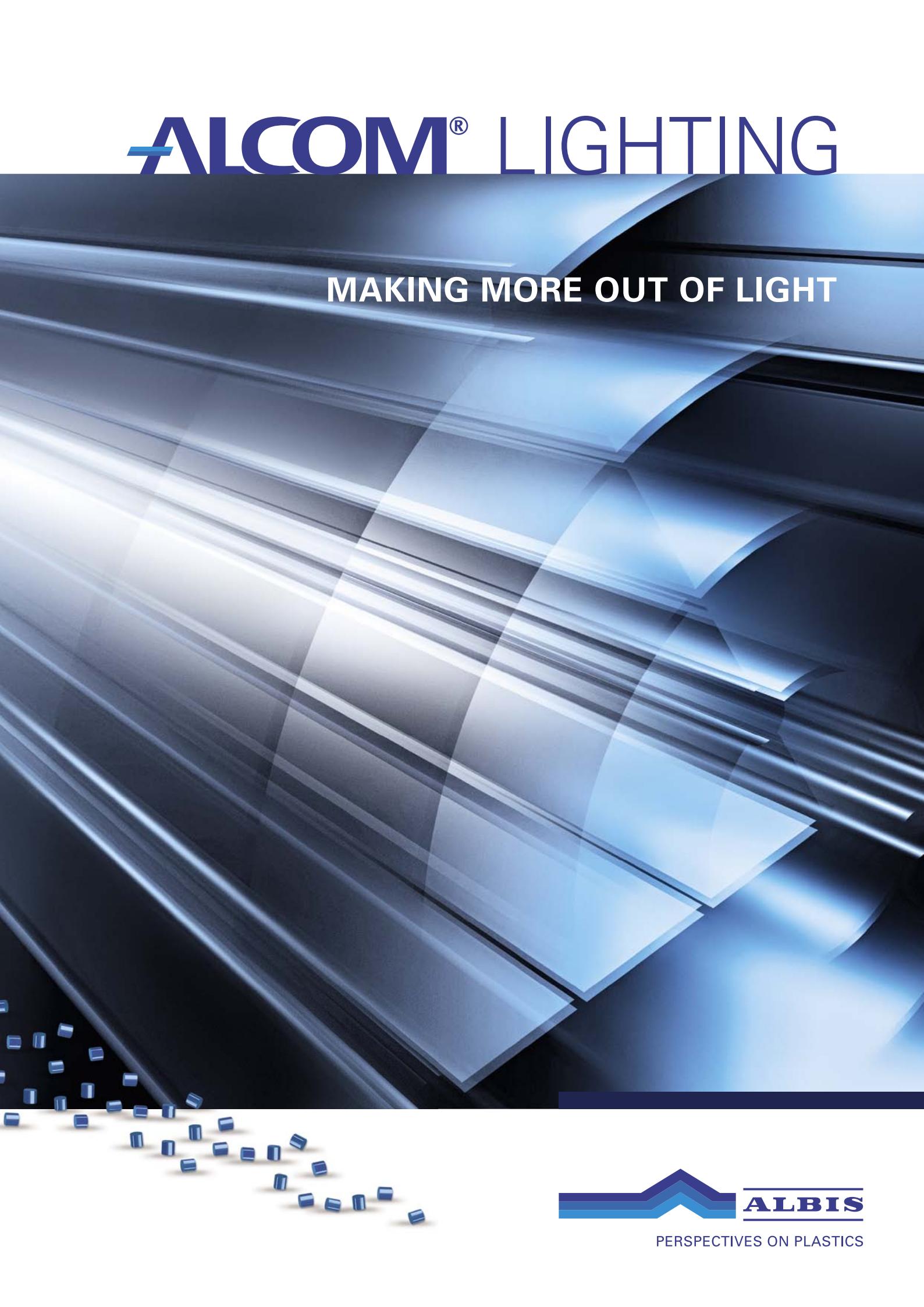


# ALCOM® LIGHTING

MAKING MORE OUT OF LIGHT

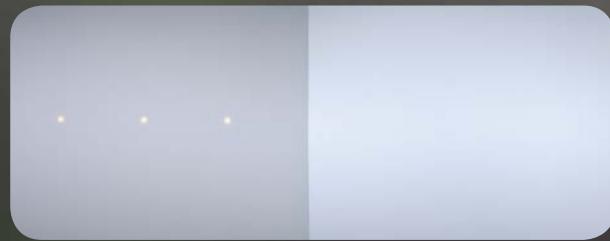


# LIGHT DIFFUSION

## WHO SAYS YOU CANNOT CALCULATE AN ATTRACTIVE AMBIENCE?

Beauty is hard to express in figures. Our developers have nevertheless succeeded in developing a formula for the modification of plastic which opens up fascinating possibilities for lighting technology. The result is a technology which has proven itself for years, particularly in the automotive industry: our product line ALCOM® LD (Light Diffusion).

How ALCOM® LD works is easy to explain: hold a translucent plastic element in front of a light source. Is the light now darker, or do you see the light source as a hot spot? Then you are seeing something you will not see with us – because ALCOM® LD means optimum light output with high homogeneity.



Conventional solution

ALCOM® LD

ALCOM® LD enables the harmonisation of operating elements in day and night design and enables the sharp contours of illuminated symbols to be viewed from wide angles. Individual colour variants, light diffusion, transmission levels and high resilience to climate change are also no problem. Combined with matt surface textures, ALCOM® LD also makes the ideal material for profile extrusion. Due to the innovative composition, ALCOM® LD also allows for simple assemblies – which in the end, also puts your balance sheet in a good light.

### ALCOM® LD

- Homogenous, almost loss-free light diffusion
- Excellent light transmission
- Elimination of hotspots
- Sharp contours of illuminated symbols from any viewing angle
- Fire characteristics complying with FMVSS 302 / DIN 75200
- UL listing
- Available as flame-retardant type "UL 94 V-0"
- High glow wire rating possibilities
- Injection moulding and extrusion grades
- Corporate colour / individual colour matched variants
- Cost reduction due to innovative system design



Surface lighting of ZETT OPTICS GmbH

# ALCOM® LIGHTING

## INNOVATIVE SOLUTIONS FOR LIGHTING TECHNOLOGY

**It indicates readiness, warning or confirmation; it directs, assists or simply just looks good – light transports messages and emotions. With ALCOM® Lighting you give your lighting applications the best possible properties and a first-class finish.**

ALCOM® Lighting offers a comprehensive range of special compounds in premium quality, which, as individual or system solutions, fulfil important requirements in the dynamic market of lighting technology; from the sharp and clear illustration of symbols in operating elements, to faithful colour reproduction and homogenous ambient lighting, to the cost and weight saving in your application.

With our special light laboratory for the development and testing of sophisticated ALCOM® Lighting solutions, we satisfy even the highest demands of our customers. By measuring and specifying transmission, diffusion and reflection, we ensure consistent lighting properties in all applications. Together with the desired mechanical material properties, we guarantee continuous quality in series production.

In the Light Diffusion (LD), Light Guides (LG) and Light Blocking (LB) segments, many products are already available for a wide range of application areas including functional, ambient or search lighting. We will be happy to help you solve your challenge and, if necessary, to develop individual products to meet your needs.



# LIGHT GUIDES

DON'T SIMPLY GUIDE THE LIGHT.  
CHANNEL IT.

The demands on the transport of light are becoming more complex, and compromises often have to be accepted in applications. For such cases, we have developed ALCOM® LG (Light Guides) based on polycarbonate. This high-performance solution combines polymer-specific advantages with outstanding optical properties. ALCOM® LG not only achieves the high transmission values of conventional light-guide technology, but also ensures a specific light performance.



Light guide of ALCOM® LG

## ALCOM® LG

- Optimum light output
- Excellent flow characteristics and mould release capability
- High toughness and optimum functionality (integration of snap-hooks)
- Good thermal stability
- Fire characteristics complying with FMVSS 302 / DIN 75200
- UL listing
- Available as flame-retardant type "UL 94 V-0"
- Glow wire rated (GWFI) to DIN EN 60695 at 850 °C
- Ideal material for 2-component injection moulding, e.g. for operating elements of polycarbonate

# LIGHT BLOCKING

## LIGHT ONLY WHERE YOU NEED IT.

With ALCOM® LB (Light Blocking) you contain your light source within narrow borders. In control and functional lighting for example, ALCOM® LB enables the grouping of many separate light sources in a very tight space. Special compound formulations thereby combine high opacity and reflection levels with extremely thin wall thicknesses – irrespective of the basic polymer. In actual service, the efficiency is therefore increased with the same energy consumption, and the lighting power significantly improved. Every light chamber provides optimum light output, without leaking into other chambers. High thermal stability, low warpage and a balanced mechanical properties make ALCOM® LB the ideal material for every design-orientated application.



Combi-instrument with reflector / LED housing of ALCOM® LB

### ALCOM® LB

- Light transmission values < 0.6 % at 0.5 mm wall thickness
- Light reflection level up to 96 %
- Increased light output
- Enables weight reduction of assemblies
- Excellent flow characteristics
- High thermal stability
- Combination of strength and stiffness
- High dimensional stability and low warpage

## A VAST RANGE OF APPLICATIONS

ALCOM® Lighting has been developed for the most demanding applications, and provides the solution to almost every light problem; from operating elements of electrical/electronic devices, to all types of light fittings and design elements. Where functional, ambient or safety lighting have a role to play, ALCOM® Lighting offers an outstanding quality and properties profile.



Your application could appear here!



## FROM DESIGN TO PRODUCTION

- Application technology consultation and support
- Product development according to requirement profile / specifications
- Technical light and material specification
- Documentation of measurement values

With ALCOM® Lighting, ALBIS offers you technical know-how and innovative product solutions from a single source – individually configured to your requirements and coordinated across the range. Talk to us and benefit from the solutions we can offer.

# ALBIS

## PERSPECTIVES ON PLASTICS

After the company was founded in 1961, ALBIS PLASTIC GMBH quickly made a name for itself as a competent partner in the plastics processing industry, and established itself as a leading compounder of technical plastics. The present product range consists of the broad distribution programme of major manufacturers, as well as versatile, high-performance and technical thermoplastics. With its proven competence, ALBIS provides its customers with application-related advice and centralised know-how for business success and innovative product management in dynamic markets.

### ALBIS worldwide

Asia-Pacific · Austria · Benelux · Czech Republic  
France · Germany · Great Britain · Hungary  
Iberia · North America · Poland · PR China · Romania  
Russia · Switzerland · Scandinavia · Turkey

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Photos:  
<sup>1</sup> Gebr. Fleischmann GmbH & Co. KG