

TREFFERT

PRODUCT SPOTLIGHT: LIGHT DIFFUSION

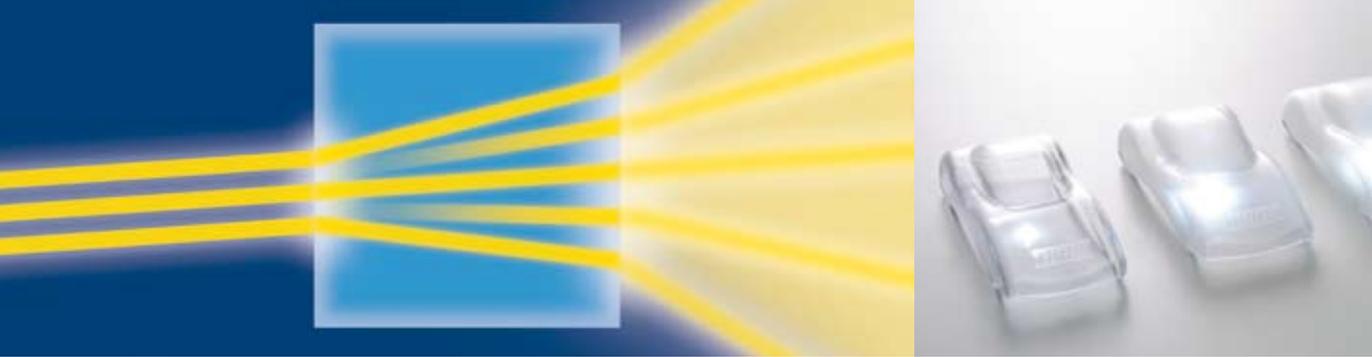


The path of light

The path taken by light through a transparent object can be influenced in any number of ways. As every child knows, when a pane of glass is breathed on, it briefly turns milky-white.

Experts call this effect diffuse scattering: the combination of a loss of contrast (milky-ness) and a reduction in the clarity of the observed object. The further away it is, the harder it is to recognise.





The path taken by light through a material can be influenced in many different ways: a process we are specialised in.

Light diffusion in use

Plastics with light diffusion additives are used across a broad range of industrial applications.

- Back-lit switches and warning signs in dashboards (day/night design). In these units the light source (e.g. an LED) is not seen as a point of light, rather, the light is spread throughout the surface.
- Glazing materials made from transparent plastics (PMMA, PC, PETG, etc.) are used for example in lamp covers, showcase glass and displays as well as in profiles and panels for sanitary and culinary areas.
- The exhibition industry uses diffusers in non-reflecting plastic sheet for picture framing.

Light diffusion from Treffert

Our light diffusion products are specially developed to meet each customer's need and can be mixed with transparent plastics. Incidental light is diffuse scattered across the whole surface area of the component without altering the light spectrum and still maintaining excellent translucence.

We can supply you with these materials in concentrated masterbatch form, depending on the type of plastic to be processed, or as a compound, in which case we will modify your raw plastic material.

Processing parameters remain identical to those of your original plastic. Processing can be carried out via injection moulding or extrusion, with anti-reflective coatings added as a coextrusion layer.

The precise colour of the plastic component can be adjusted according to your requirements – translucent, black and white or transparent colours.



Incidental light can be dispersed in varying degrees depending on the component's intended application.



"Colour follows function" also applies to the manufacture of plastic components, e.g. for day/night design switches.

Individual consultation from Treffert

Our company's motto is "Colour follows function".

So you won't be sold standardised solutions, but offered high-quality products which have been developed strictly as you specify at every stage of the process.

Talk to our additive experts and describe the job. We provide advice and support around every aspect of component application and design, and can of course supply you with free sample materials at short notice.

If you require, our application technicians can also support your manufacturing processes on-site.

We look forward to your order.

Treffert – colour follows function.



Black, white or transparent colours: we match every tone precisely to your specifications.

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