

LED Light Diffusion Products

15th June 2021

To Whom It May Concern:

Silex silicones are commonly used for light diffusion of LED strips such as their inherent flexibility and diversity. Available in several formats such as extruded tubing, profiles and moulding, Silex Ltd offer a comprehensive service to ensure a perfect solution to this application.

Selecting the right material is of utmost importance. Silex Platinum cured silicones are always used for light diffusion due to their extremely low yellowing properties. Peroxide cured silicones must not be used as these can yellow with age and distort the aesthetics of the product.

Of equal importance is the level of pigment chosen to diffuse the LED bulbs. There are many factors involved here and they are nearly always bespoke to the customers LED strips. Consideration needs to be taken in terms of how close the silicone component is to the LED bulbs and how thick the silicone is and only with experimentation can the level of pigment be determined, usually to the point of diffusing the light to a point where the individual bulbs cannot be seen. To do this, customers are requested to supply us with a short length of their LED strip, details of the profiles required and how they are fixed and/or set into their chosen carrier system.

Although white is the most common pigment used for diffusion there are a host of other colours available. Care must be taken on some colours which can fade slightly although most have excellent light stability. As with all silicones, weathering capabilities are excellent, and they do not harden or crack over time making them an ideal choice.

Please email us with your requirements.