



## ImagePerfect™ 2570 Photoluminescent Support Sheet

Photoluminescent products absorb light (activating the photoluminescent pigment) and emit a strong after-glow in the dark, once the light source has been removed.

Products of this nature are popular for identification markings and symbols and for safety signage and emergency signage, including the location marking of emergency equipment (including fire extinguishers), danger areas, barriers and obstacle markings, slip hazard warnings, perimeter demarcation lines and exits (as a part of safety way guidance systems). As such, they will be used in many types of building, including educational establishments, office blocks, factories, retail locations, transport hubs, hotels, sports arenas, concert venues, museums, art galleries, etc, and they will be broadly used within the aviation, marine and rail industries. For less critical applications, they will also be used for promotional items and novelty, glow-in-the-dark items.

In terms of photoluminescent films in use as a part of safety way guidance systems, there is no electricity required to run the signage (unlike with electrically illuminated signage), there is no battery back-up required (again, unlike with electrically illuminated signage) and, as such, there is zero energy cost. Such self-illuminating signage is also reliable because it does not depend on the availability of a continuing power source.

The film is non-toxic, it does not carry an electronic charge and it does not include radioactive pigments to facilitate its ability to absorb light.



### Photoluminescent vs Fluorescent

Fluorescent films and photoluminescent films both absorb UV light energy and then release that energy as visible light, as opposed to standard films which absorb UV light energy and then release that energy as heat. A fluorescent film, however, only releases the visible light while it continues to be exposed to the UV light source (when the light source is removed, the fluorescent film will stop emitting visible light), whereas a photoluminescent film will continue to release visible light in the form of an after-glow, even after the original source of UV light has been removed.

### PSPA Classification

The strength of the after-glow and the amount of time that it will effectively last are key performance indicators for photoluminescent products and, as such, they will invariably be reference points for customer choice (as well as considerations such as thickness, colour, finish, durability, fire rating, etc). It is the Photoluminescent Safety Products Association (PSPA) that recommends acceptable levels of performance for photoluminescent material in the industry. The classes below are the most common reference points and are defined in accordance with DIN 67510 Part 1.

**Class A:** The least amount of photoluminescent pigment; thus, the least brightness and the shortest period of after-glow.

**Class B:** More photoluminescent pigment than Class A; thus, more brightness and a longer period of after-glow.

**Class C:** Even more photoluminescent pigment than Class B; thus, even more brightness and an even longer period of after-glow.

**Class D:** The highest photoluminescent pigment loading; thus, the brightest option and the longest period of after-glow.

The typical capture points for measuring the strength of the after-glow are taken at 10 minutes after removal of the light source and at 60 minutes after removal of the light source, and the strength of the after-glow or luminance is then measured in millicandela per square metre ( $\text{mcd}/\text{m}^2$ ). The significance of the 10 minute and 60 minute measures is that 10 minutes is the general estimation of time required to evacuate a building (for instance, in the event of fire) and 60 minutes is the general estimation of time required for fire crews, electricians and/or engineers to complete their required work in the dark. Quite simply, the higher the values ( $\text{mcd}/\text{m}^2$ ), the better the product. At  $99\text{mcd}/\text{m}^2$  (10 minutes) and  $14\text{mcd}/\text{m}^2$  (60 minutes), IP 2570 Photoluminescent sits very favourably.

### Roll Size

Most photoluminescent digital options are available at either 100cm wide or 122cm wide. As such, the IP product at **100cm** wide is perfectly aligned with the digital expectations for this kind of product. The additional option of EDGE conversion at **38cm** wide will allow for the practical production of smaller print-and-cut decals. In both cases, the **10m** roll length will be much appreciated by end-users as the majority of conversion will be "short run" business.

For more information about ImagePerfect please visit [www.imageperfect.com](http://www.imageperfect.com)

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