



## A buyers guide to Photoluminescent (PL) emergency floorpath lighting systems.

In the last 10 years PL has replaced more and more electrical systems as operators recognise the benefits of a 'no batteries/no bulbs/ no wires' solution that is 100% reliable. But, if you are new to PL, how can you be sure which system is right for you?

STG Aerospace, makers of SafTGlo, the world's leading supplier of PL systems offers this guide to buying. It is based on the issues that our customers have asked us over 14 years of operation and can be used as a checklist of points to watch out for. If you are looking for the best PL system, you should be asking your supplier about:

- Product range and type
- Product performance
- Company experience and back-up
- Understanding the value equation

### Product range and type

| Key question   | Why you need to ask this   | What to watch out for  | The SafTGlo Advantage  |
|--|--|--|--|
| <b>Do I have a system that is suitable for all areas of my aircraft cabin?</b> | Different areas in an aircraft will require different types of floorpath marking product to reflect usage patterns. Premium cabins require aesthetic consideration. Other areas such as galleys may require lower system profiles and systems guaranteed to protect against cleaning and preparation fluids. | Check that your supplier has a wide enough range of product types to suit your specific needs. And that all the product types perform to the same standards.       | SafTGlo systems provide Low Profile and OverCarpet systems using the same patented SuperSeal design advantage.                                   |
| <b>Can my supplier match the colour I want?</b>                                | A new colour system needs to match the scheme of your cabin interior – otherwise what's the point?   | Everyone has a different perception of colour match. Be sure that your supplier has a sound technical basis for colour matching and is not just doing it 'by eye'. | SafTGlo uses a comprehensive digital spectrometer protocol to exactly match your carpet. This reduces arguments as to which colour best matches. |

## Product performance

| Key question   | Why you need to ask this  | What to watch out for   | The SafTGlo Advantage  |
|--|---|---|--|
| Will my chosen product give the best 'glow' performance? | PL floorprox systems are a vital safety product designed to guide passengers to the exits in the event of an emergency in darkness. You must be satisfied that your system is giving the best 'glow' performance available. Not all PL products are the same! | PL pigments glow in the dark after being charged - primarily with UV frequency light. These pigments are unstable and need to be protected from fluids by embedding them in stable, transparent epoxy resins [that don't discolour with age] and encapsulation in polycarbonate [PC] plastic covers. Because PC is a UV filter every 1mm extra of PC cover reduces system performance by around 20%.<br><br>Study this feature in competing designs, and ensure that any performance claims can be verified by independent test results on the fully assembled, 'as fitted', product. | The STG SuperSeal design is patented worldwide and gives the best possible design performance by sealing the system glow strips in a fully sealed polycarbonate track with minimum polycarbonate cover.<br><br>In addition, STG SafTGlo systems embed the PL pigments in long curing epoxy resins which, unlike UV curing resins, do not deteriorate with age.   |
| Will the product be 100% reliable?                       | You never know when an emergency might strike so you need to be confident that your system will work at any time  | Reliability can be affected by installation as well as product manufacture. You need to be sure that your supplier has the appropriate expertise in PL to ensure your system is reliable.   | PL is STG's business, and we are arguably the world's experts in its application on aircraft, with several white papers published.<br><br>STG holds a worldwide patent and, on payment of royalty, gives limited licence to Lufthansa Technik to use PL on aircraft; but STG does not allow them use of SafTGlo's advanced technology.<br><br>STG are also the only manufacturer of aviation PL systems who design and produce 'in-house'. |
| Will the product be 100% safe?                           | There is nothing complex about PL systems. If they receive sufficient light during the charging cycles and are installed so that all of the system can be seen all of the time in an evacuation, then they will be 100% safe.                                 | Make sure your supplier of choice really understands what is required of PL systems. Are their installations fool proof and safe, and are the installation instructions clear and precise so that inappropriate installation is avoided? Study their system charging protocols - do they make sense to you and can you guarantee the protocol guarantees sufficient light to charge - if not then the system is compromised.  | STG invented PL emergency floor prox systems in aircraft and understands the importance of correct installation and charging protocol.   |
| Is the product truly 'fit-for-life'?                     | A key element of the financial case for fitting PL systems is the lifetime cost of the product. It is easy to say a product is 'fit for life' but then have continuous requirement for overpriced spares with costly installation.                            | Ask your supplier of choice for case-study evidence that the product has no life limit, a proven long-life span and will not need replacing every 3-5 years because of poor design.<br><br>Also ask if they have any 'through life' testing protocol, which ensures the system has not been damaged in any way.   | Many SafTGlo systems have been installed without repair or refurbishment for over 10 years. - however, we understand that systems can be maltreated and it is essential for any aviation safety system to have periodic test protocols in place to ensure continued airworthiness.   |

## Company experience and back-up?

| Key question   | Why you need to ask this   | What to watch out for   | The SafTGlo Advantage  |
|--|--|---|--|
| Does my supplier know what they are talking about when it comes to PL?   | While not all PL products are the same it is also true that not all PL product suppliers are the same. Experience, knowledge and the endorsement of market leadership will all give you added confidence in the product. | Ask your supplier for their credentials in PL.<br>What aspects of the development of PL technology on aircraft have they been responsible for?<br>Do they have a responsible attitude to aircraft safety? | STG has been first in every important advance of PL technology and is the only company to hold viable intellectual property rights for its design and application on aircraft. STG invented the technology and have continuously safeguarded its integrity on aircraft by publishing 'best practice' white papers. |
| Does my supplier have licence to the worldwide patents on PL technology? | You need to be sure that your supplier is not opening you up to problems by infringing worldwide patents. Check that they own the intellectual property in their product, or have licence to use it.                     | Ask your supplier if they hold any patents. If they are a licence holder ask why they operate under a licence. Find out who they hold the licence from.   | STG is the only company to hold viable intellectual property rights for PL technology on aircraft. It has awarded one royalty licence, permitting only LT to use PL on aircraft, but NOT to use STG products.  |
| Can the company support me anywhere in the world?                        | Aviation is a global market and you need to be sure that the company can support you wherever you operate  | Be sure that your supplier has a global network that can support you wherever you are. If you operate in the US does your supplier have a base there?   | STG has a US subsidiary company, and a network of thirteen [13] territorial agents worldwide to support our global customers.  |

## The value equation

| Key question   | Why you need to ask this   | What to watch out for   | The SafTGlo Advantage  |
|--|--|---|--|
| When looking at suppliers quotes am I comparing like with like?                      | Different suppliers quote their prices in different ways and you don't want to be caught out by any extras on your final costs.  | Clarify with your supplier exactly what you are paying for. Does the final price quoted include: <ul style="list-style-type: none"> <li>• Cost of installation support</li> <li>• Cost of post sales back up</li> </ul>   | SafTGlo offers a clear pricing protocol so you always know exactly where you stand.  |
| When considering the cost of the product have you worked out the lifetime cost?      | Some suppliers need to replace their PL system more often than others because they are not as durable. In some cases this can more than treble the cost of the system over its lifetime. | Ask your supplier for hard evidence that the product fulfils the claims they make about durability. It is not acceptable to say a system is 'fit for life' when it only stays that way by constant repair and/or replacement of parts.<br>Check with other users of a PL system about their spares usage. | STG has a minimal spares market. This demonstrates the leading durability of our systems.  |
| Is your supplier able to help you make the business case for installing a PL system? | While there may be a freeze on capital expenditure the cost benefit of a PL system may make it affordable out of your maintenance budget.  | Make sure your supplier has the tools to help you build the cost justification as well as the engineering case for installing a PL system.  | STG has researched, with airlines, the cost of maintaining electrical emergency floor proximity systems, and has software programs available to help our customers make the investment case. |