Colorants & Additives for Electrical & Electronic Applications

IEC 60695-2, known as the Glow Wire test, and UL 94 are established standards in the Electrical & Electronics industry that ensure plastic parts in electrical and electronic components have been tested for fire resistance in support of safer consumer products.

Avient offers UL 94 compliant concentrates and flame retardant solutions which meet the latest UL 94 and Glow Wire fire standards, while also considering technical requirements, coloration options and cost efficiency. A team of experts provides guidance on the concentrate solution most relevant to the final article, whether it is a light switch, plug, socket, electrical appliance, electronic/electrical connector or electric vehicle charger. All concentrates are formulated for easy processing on standard dosing systems.

OnColor™ UL 94 Colorants*

- More than 2,000 recognized concentrates available worldwide in all color options
- HB rating for most of PP, PS, ABS, PC/ABS, PBT, PA, PA-GF, TPU generic resins
- V-0, V-1, V-2 and 5VA/5VB ratings for more than 200 specific engineering resins
- Master file of recognized concentrates with scope of use accessible in the UL product finder
- Development of custom products for specific resins upon request
- Compliance Letters available for REACH and RoHS

Cesa™ Flame Retardant Additives for Glow Wire

- Fire performance in line with different levels of Glow Wire temperatures (IEC 60695-2-12)
- Let-Down Ratio adjustable to reach different levels of Glow Wire temperatures
- Non-halogen (in accordance with IEC 61249-2-21) and non-HBCD** solutions
- Wide range of solutions adapted to different polymers (PP, PS, PC)
- Color and flame retardants can be combined in one product
- Compliance Letters available for REACH and RoHS

* Solutions also sold as Renol™ UL 94 Colorants
**APPLICATION**

**POLYMER** | **GWFI TEMPERATURE** | **TYPICAL LET-DOWN RATIO** | **CONTENT**
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HIPS | 750–960°C | 5–10% | Non-HBCD flame retardant**
PC | 850–960°C | 2–4% | Non-halogen in accordance with IEC 61249-2-21
PP homopolymer | 850–960°C | 4% | Non-halogen in accordance with IEC 61249-2-21
PP copolymer | 850–960°C | 4–8% | Antioxidant - metal deactivator

Other additives are available on request to fulfill specific requirements such as UV stabilization, laser marking or other functions. Our representatives can suggest the most suitable standard or custom solution.

**Non-HBCD** means that Hexabromocyclododecane (HBCD) is neither used as starting material during the mixing phase of our products nor intentionally added during production, but it cannot be excluded that it is not present at level of ubiquitous traces in any of the raw materials used in manufacturing of our products. In this regard “ubiquitous” means that this substance is omnipresent and its occurrence cannot be avoided by any technical, physical or chemical measure. Therefore, no specific analysis in order to detect the presence of HBCD is being carried out.