



» PRODUCT BULLETIN

Colorant Chromatics™ UV Laser Marking Technology for FEP

With the capacity to withstand high heat and corrosive environments, fluoropolymers have outstanding dielectric properties and continuous service temperatures. Therefore, these polymers are a common choice for wires & cables in many industries, such as the aerospace industry. Depending on the cable construction, fluorinated ethylene propylene (FEP) is the preferred polymer used for insulation of a conductor or as jacketing of one or more cables. For identification purposes or safety reasons, these cables often need to be marked. Beyond traditional marking, Colorant Chromatics™ UV Laser Marking Technology provides an ability to apply ultraviolet (UV) laser marking to FEP.

A continuing trend in the aerospace industry is miniaturization of wires and cables, resulting in very thin jacketing and insulation thicknesses. Traditional printing solutions can lead to the mark peeling off, while infrared (IR) laser marking can damage the surface of the jacket. The unique formulation of Colorant Chromatics UV Laser Marking Technology enables a permanent and gentle marking of the cable surface. The resulting mark achieves between

60% to 80% contrast, fulfilling aerospace standards SAE AS4373F and EN-3475-706.

In addition, this UV laser marking technology for FEP is melt processible and cost effective compared to current PTFE tape wiring solutions for laser marking.

KEY CHARACTERISTICS

- Benign marking, ensuring FEP jacketing integrity
- Permanent marking with outstanding contrast of 60–80%
- Meets aerospace industry standards SAE AS4373F and EN-3475-706
- Technology applicable in PFA

MARKETS AND APPLICATIONS

Colorant Chromatics UV Laser Marking technology for FEP is a good choice for a range of applications within the wire and cable industry, and is especially suited for aerospace and aviation.

Examples include:

- Data transmission cables
- Optical fiber cables

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