



Plastic Optical Fiber for Automobiles

POF DEC 8 **AUTODAY**
The Westin
Southfield DetroitDetroit, Michigan
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Luceat POF Flamabilit Tests

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As regards the flammability tests, what we've seen until now is that:

1. A bare POF fibre is highly flammable. Flames propagate quickly and are supported by PMMA. The fibre is devoured by flames in seconds.
2. A POF cable with a standard jacket (i.e. PE) is partially flammable. The jacket slows the propagation of flames, although it can't stop them. At the end of the test, the cable has been completely destroyed by flames, but the process is far slower than with a bare POF.
3. A POF cable with a non-flammable jacket (i.e. Dupont's FEP) is non flammable, and passes flammability tests made in accordance with European specifications CEI 20-22. At the end of the test the cable is still functioning properly, although the external jacket has been partially damaged by flames.

The results we obtained seem rather obvious. They show that with a proper jacketing material POF is a perfectly safe medium, and could be used in airplanes as well.

Still, the aviation industry is rather paranoid about flammability, and may be unwilling to accept some kgs of flammable material in a plane. I don't see why, since a Boeing 737-800 at take off is flammable for 30% of its weight (62 tons, 21 of which are kerosene); maybe I'm missing something here...

Or maybe it's a problem of marketing again, and technical issues have nothing to do with it!

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