Discovering the Differences in SABIC's LEXAN™ Flame Retardant Polycarbonate Films

The four most common flame retardant polycarbonate films...

SABIC's line of flame retardant films is made up of specialty products that have a wide range of applications including printed circuit boards, dielectric insulators, and EMI/RFI shielding components. The breadth of products available offer four main colors, many gauges ranging from 1 mil to 30 mils, and seven standard textures.

In the LEXAN™ flame retardant polycarbonate lineup the common products are FR700, FR700NV, FR65, and FR60. There are many other options, but these are the top four in the market place. The Lexan™ FR700 product is a black velvet/fine matte film that is available in .010 - .030 and offers a UL rating of UL94 V-0 which makes this product perfect for insulation applications such as power supply, disc drive, and bus bar insulation. Along with its high flammability rating this product offers good dimensional stability at high temperatures and excellent formability.

Lexan™ FR700NV is the non-aesthetic version of the FR700. It is also black with a velvet/fine matte texture that is UL94 V-0 rated; however, this product is available in .017 - .030. In addition, Lexan™ FR700NV is the cost effective version of the FR700 making it a competitive material for applications that commonly use flame retardant polypropylene like business equipment insulation and EMI/RFI shielding when laminated with metal foil. Lexan™ FR700NV also offers a higher Relative Thermal Index (RTI) than flame retardant polypropylene allowing it to handle higher temperatures before thermal decomposition occurs making the product is unusable.

If your application calls for a clear product rather than the black materials listed above the next two products may be just what you're looking for. Lexan™ FR60 is a clear gloss/gloss film that is offered in a range of thicknesses from .010 to .030. Much like the FR700 and FR700NV this product meets the stringent UL requirements giving it a UL94 V-0 flammability rating. Along with its ability to handle post processing such as thermoforming, embossing, and hydroforming this product can easily be used in IMD applications for instance car dashes, backlit aircraft in-flight panels and displays.

Lexan™ FR65 is another clear option and if you need texture this material's velvet/matte finish may be the ticket. It is available in .010 to .020 and also meets the UL94 V-0 flammability rating. This product is used in all the same applications as the FR60 but again the texture is the differentiating factor in choosing one over the other.

Stop by booth #347 at the SGIA Expo in Las Vegas, NV October 18-20 to ask our knowledgeable staff about this line or contact your Tekra sales representative for a quote or sample!