

## **Launch of Pulshut™ – a thin, lightweight noise suppression sheet**

Providing high-frequency noise suppression  
for higher performance and further miniaturization of electronics products

Asahi Kasei Fibers Corp. developed Pulshut™ as a thin, lightweight, high-performance sheet that suppresses high-frequency electromagnetic noise, and will launch its sale on August 1, 2010.

### *Background*

In recent years, the evolution of electronics products has advanced rapidly, with greater miniaturization and higher performance in terms of speed and capacity, making it increasingly important to suppress the electromagnetic noise generated by the individual components within such products. Moreover, as faster signal processing with higher frequency causes the noise frequency range to extend from the low frequency range (up to 1 GHz) to the high frequency range (exceeding 1 GHz), the prospect of tighter regulation of high-frequency noise has begun to emerge.

The generation of electromagnetic noise can be avoided to some extent through careful circuit design. When noise problems nevertheless occur, noise suppression sheets are commonly used, being affixed directly to the surface of the noise source. Conventional noise suppression sheets, based on synthetic rubber or resin, have limitations to their applicability due to considerations of thickness, weight, and flexibility, and have decreasing effectiveness in higher frequencies. There has thus been an increasing need for noise suppression sheets with higher performance corresponding with the further miniaturization and higher performance of electronics products.

In course of the development of new applications for Precisé™, a specialty nonwoven fabric made with innovative technology, Asahi Kasei Fibers found that a high noise suppression effect was obtained through the addition of surface control technology and special processing to conventional Precisé™. This led to the successful commercialization of Pulshut™ as a noise suppression sheet.

### *Features of Pulshut™*

- Effective in a wide frequency range. Especially strong suppression effect at high frequencies.
- Noise suppression effect not influenced by sheet thickness. High performance obtained even with standard grades of around 0.05 mm thickness.
- Excellent flexibility, enabling the sheet to be affixed to uneven surfaces.
- Edges release almost no fragments which may cause short circuits.
- Excellent insulation on the edges as well as the sheet surface.
- Suppresses noise from any direction.

*Market development*

Pulshut™ holds promise in a wide range of electronics products for the home and office, including mobile phones, digital cameras, flat-panel televisions, game consoles, computers, printers, and multifunction devices. Shipments of samples in these and other applications have already begun in preparation for the launch of sales on August 1, 2010.

Asahi Kasei Fibers is targeting ¥1.5 billion in worldwide sales by fiscal 2015, meeting demand for a thin, lightweight noise suppression sheet that is effective at high frequencies.

*About Précisé™*

Précisé™, developed by Asahi Kasei Fibers, is a polyester nonwoven fabric featuring excellent uniformity and a unique structure comprising filament layers with different fineness. It displays a combination of performance characteristics including the heat resistance, strength, and rigidity of polyester fabric, as well as barrier control enabled by its ultrafine fibers. Major applications range from membrane substrates and filters to medical tape substrates and food packaging.