

## **Sales Expansion of Flame-Retardant Polycarbonate Sheets for Insulation with Excellent Tracking Resistance**

Tokyo, Japan –November 12, 2021 Sumitomo Bakelite Co., Ltd. (TOKYO: 4203 HQ: Shinagawa-ku, Tokyo, President and Representative Director: Kazuhiko Fujiwara) announced today that flame-retardant polycarbonate sheet for insulation (Non-halogen series flame retardant polycarbonate), which uses a halogen-free flame retardant, has been adopted in power-related systems and high-voltage products for electric vehicles due to its excellent tracking resistance\*.

Taking the trend of electrification in the automotive industry as an opportunity, we will promote activities to appeal to automobile parts manufacturers in Japan and overseas. \*In-house investigation

Our company Non-halogen series flame retardant polycarbonate VHF series is a flame-retardant polycarbonate sheet with high flame retardancy and excellent tracking resistance thanks to our original flame retardant design. CTI: PLC 0 (600 V or higher), the highest ranking of tracking resistance in UL standards, is the only insulation sheet\* with excellent workability and high heat resistance in consideration of the global environment. In addition, this product does not use halogenated flame retardants and is certified as UL 94 V-0. \*In-house investigation.



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600 mm Width x 100 ~ 600 mm

By using materials with excellent tracking resistance as insulation components inside the product, we believe that we can contribute to the miniaturization and thinning of customers' products by improving safety by preventing tracking from occurring, and by shortening the creepage distance of the insulation and increasing the degree of freedom of design. Thanks to customer recognition of this feature, the VHF grade of the Non-halogen series flame retardant polycarbonate has been adopted in power supply systems and high-voltage products for electric vehicles.

Electric vehicles, which are rapidly becoming popular in recent years, require even greater capacity, higher output, and faster charging. In line with this trend, there is an increasing need for insulating materials with high tracking resistance for power-related systems and high-voltage products, and we will continue to expand sales by proposing products that increase the value of our customers' products.

Since its launch, Non-halogen series flame retardant polycarbonate Non halogen series flame retardant polycarbonate has been used as an insulation component in electronic devices such as TVs, OA devices, AC adapters, notebook PCs, and video game consoles, where short-circuit is a concern. It is sold in a lineup of 0.05 mm to 0.81 mm thick rolls and cut products. The VHF series described above can be used in the thickness range from 0.41 mm to 0.83 mm, and has been certified as UL 94 V-0. In addition to achieving the highest ranking in tracking resistance, the series does not contain PFBS \*, which was registered as a substance of high concern under REACH regulations in 2020, and is more environmentally friendly. We also offer PHF grades that support thinner thicknesses (0.05 mm to 0.25 mm) and are UL 94 VTM-0-0 to VTM -2 certified.

\*PFBS (perfluorobutanesulfonic acid)

A substance used as a catalyst/additive/reactant in polymer production and chemical synthesis and is also widely used as a flame retardant in polycarbonate resins. Listed on the SVHC (Substances of Very High Concern) list in Regulation 22 (January 16, 2020) of the REACH.

**application example**



◆Insulation for Onboard charger, inverter and converter of electric vehicles



◆Case for power conditioner source and circuit board



◆Insulation between circuit board and metal for AC adaptor source



◆Insulation between circuit board and metal housing of notebook PC

**Standard**

**PC ECO-SHEET PHF SERIES**

PHF series in cut sheet

Products	Color	Surface	Thickness (mm)	U L	Size (mm)	Quantity
PHF151MAB	Half-clear	Both sides matte	0.25	VTM-0	1200×600	100
PHF851MAB	Black	Both sides matte	0.20	VTM-0	1200×600	120
			0.25	VTM-0	1200×600	100

PHF series in roll form

Products	Color	Surface	Thickness	U L	Size (mm)
PHF151MAB	Half-Clear	Both sides matte	0.20	VTM-0	600×300m Roll
			0.25	VTM-0	600×200m Roll
PHF860MAB	Black	Both sides matte	0.050	VTM-2	540×600m Roll
			0.075	VTM-2	600×600m Roll
			0.100	VTM-0	600×500m Roll
			0.125	VTM-0	600×400m Roll
PHF851MAB	Black	Both sides matte	0.15	VTM-0	600×300m Roll
			0.20	VTM-0	600×300m Roll
			0.25	VTM-0	600×200m Roll

Above figures are all representative data and are not subject to guarantee or warranty.

**PC ECO-SHEET VHF SERIES**

●CTI 0 = 600 V or more ● PFBS free, Lot 5 compatible. (V-series)

(VHF series in roll form and cut sheet)

Products	Color	Surface	Thickness (mm)	U L	Size (mm)	Quantity
VHF150MAB	Natural	Both sides matte	0.41	V-0	600×150m Roll	
			0.50	V-0	600×100m Roll	
			0.41	V-0	1200×600	60
			0.50	V-0	1200×600	50
VHF850MAB	Black	Both sides matte	0.83	V-0	※	
			0.41	V-0	600×150m Roll	
			0.50	V-0	600×100m Roll	
			0.41	V-0	1200×600	60
			0.50	V-0	1200×600	50
			0.83	V-0	1200×600	30

Note: \* marked item is a made to order. Please consult us about the size and lot.

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