

# News Release

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## **Ultrason® E in coated fabrics used as particulate and bacterial filter for face masks**

- **Indian membrane manufacturer Permionics Membranes employs Ultrason® E in washable and re-usable face masks for India**
- **BASF's polyethersulfone shows excellent filtration properties and good adhesion to non-wovens**

BASF has joined hands with membrane manufacturer Permionics Membranes, Vadodara, India to extend for the first time the application of BASF's Ultrason® E (PESU: polyethersulfone) into coated fabrics which serve as particulate and bacterial filter for face masks. The face masks using the fabric as a middle layer are highly breathable, washable and re-usable unlike conventional face masks. They are designed for the usage in the Indian healthcare market.

Permionics selected Ultrason® E for its coated fabric called Perma Bioshield. The unique protective fabric is made by adhering an anti-microbial coating made of Ultrason® E to the matrix of a non-woven fabric as a bonded support. Ultrason® E is a high-purity material with low gel and oligomer content that ensures a stable membrane manufacturing process. The BASF PESU can be used in a wide pH range (0 - 13) without deterioration. It complies with Food and Drug Administration (FDA) and European standards for repeated-use food contact and thus can be used in drinking water and food processing applications. It is especially suitable for

the production of durable hollow-fiber membranes and filters for use in the food, beverage, electronics and pharmaceutical industries.

“In the COVID-19 pandemic, the need for developing and manufacturing high-efficiency particulate and bacterial filters for face masks has become a priority across the world. Ultrason® E turns out to be an ideal choice for the coating of Perma Bioshield as the material allows for a better narrow pore size control and a good adhesion to non-woven fabrics. These are two features which are key to the removal of bacteria, dust and pollution,” said Satyajai Mayor, managing director of Permionics.

Currently, the Perma Bioshield is used in several types of face masks in India, manufactured by a leading healthcare company. Apart from being used in face masks, Perma Bioshield is also an ideal filter for applications such as breathable medical gowns and clothing used in hospitality and airline industries, high efficiency particulate air filter (HEPA) filter replacements, antimicrobial and dust-proof blinds or screens.

Ultrason® is the trade name for BASF’s product range of polyethersulfone (Ultrason® E), polysulfone (Ultrason® S) and polyphenylsulfone (Ultrason® P). The high-performance material is used to manufacture lightweight components in the electronics, automotive and aerospace industries as well as in water filtration membranes and in parts that come into contact with hot water and food. Because of their extraordinary property profile the Ultrason® brands can substitute thermosets, metals and ceramics in many applications.

For more information: [www.ultrason.basf.com](http://www.ultrason.basf.com)

#### **About BASF’s Performance Materials division**

BASF’s Performance Materials division encompasses the entire materials’ know-how of BASF regarding innovative, customized plastics under one roof. Globally active in four major industry sectors – transportation, construction, industrial applications and consumer goods – the division has a strong portfolio of products and services combined with deep understanding of application-oriented system solutions. Key drivers of profitability and growth are our close collaboration with customers and a clear focus on solutions. Strong capabilities in R&D provide the basis to develop innovative products and applications. In 2020, the Performance Materials division achieved global sales of €5.63 billion. More information online: [www.plastics.basf.com](http://www.plastics.basf.com).

#### **About BASF**

At BASF, we create chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. More than 110,000 employees in the BASF Group contribute to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio is organized into six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. BASF generated sales of €59 billion in 2020. BASF shares are traded on the stock exchange in Frankfurt (BAS) and as American Depositary Receipts (BASFY) in the U.S. Further information at [www.basf.com](http://www.basf.com).