

Ethylene Tetrafluoroethylene (ETFE) Coatings

ETFE (ethylene tetrafluoroethylene) is a thermoplastic Fluoropolymer. ETFE was designed to have high corrosion resistance and strength over a wide temperature range. ETFE has a very high melting temperature, excellent chemical, electrical and high energy radiation resistance properties. ETFE has electrical properties and chemical resistance comparable to those of typical fluoropolymers such as polytetrafluoroethylene (PTFE) and tetrafluoroethylene-hexafluoropropylene copolymer (FEP), yet at the same time is characterized by improved mechanical properties and outstanding process ability.



ETFE film is self-cleaning (due to its nonstick surface) and recyclable. It is mostly used for roofs. In sheet form as commonly employed for architecture, it is able to stretch to three times its length without loss of elasticity. Employing heat welding, tears can be repaired with a patch or multiple sheets assembled into larger panels.

ETFE has an approximate tensile strength of 42 N/mm² (6100 psi), with a working temperature range of 89 K to 423 K (-185 °C to 150 °C or -300 °F to 300 °F).

Used widely in chemical industries. ETFE has excellent chemical resistance and can operate continuously at 149°C/300°F. This resin is the toughest of the fluoropolymers and can be applied at film builds up to 1 mm.

ETFE coating can replace glass lining for chemical processing vessel.