



# PI/PTFE Composite Film

### Polymide Film with Fluoropolymer

**ESONE** PI/PTFE composite film is a family of heat sealable fluoropolymer-coated high strength polyimide materials specifically engineered for the aerospace and cable industries.

This composite film offers a balanced range of properties, making it an ideal choice for applications in airframes, hookup wires, and general aircraft wiring. Coated on both sides with fluoropolymer materials(including PTFE coating, PFA coating or FEP coating) tailored for the wire and cable sector, **ESONE** composite films are compatible with wire constructions that include tin, silver, and nickel-plated conductors, as well as copper conductors.

The **ESONE** composite film comprises polyimide (PI) coated with fluoropolymer resins such as PTFE or PFA or FEP. It boasts excellent thermal, chemical, mechanical, and electrical insulation, along with outstanding release properties, making it suitable for various demanding applications.

## **Property of Composite Film**

- •The material exhibits high heat resistance.
- The bonding between PI and PTFE is strong
- •The PTFE coating features a low surface roughness.
- •The excellent release properties of PTFE facilitate the easy removal of contaminants during processing.

#### Applications of Composite Film

- Semiconductor packaging processes
- Hydrogen fuel cell MEA processes
- Display manufacturing processes
- Flexible heater
- Electrical and electronics insulation
- Heat Sealable applications
- Aerospace wire and cable

# **Specification**

Model Number	Overview	Basic Thickness (um/mil)	Coating Thickness (um/mil)	One/Both sides	Coating Material
FILMCOAT-PP253	1mil PI one side coating	25 (1)	3 (0.12)	One side	PTFE
FILMCOAT-PP255	1mil PI one side coating	25 (1)	5 (0.2)	One side	PTFE
FILMCOAT-PPF2512	1mil PI both sides coating	25 (1)	12 (0.5) / 12 (0.5)	Both sides	PTFE/FEP
FILMCOAT-PP5017	2mil PI one side coating	50 (2)	17.5 (0.7) / 17.5 (0.7)	Both sides	PTFE/PTFE
FILMCOAT-PPF7525	3mil PI both sides coating	75 (3)	25 (1) / 25 (1)	Both sides	PTFE/FEP



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