

1. Make the films stronger
2. Enhance barrier properties

Regarding the aluminum mylar, it is aluminum foil laminated with PET films (not the vacuum coated layer), also was named PETAL

PETAL is much better than VMPET on barrier properties.

See the comparison

|                   | Moisture (g/m <sup>2</sup> .day) | Oxygen (mL/m <sup>2</sup> .day) | UV light (%transmittance) |
|-------------------|----------------------------------|---------------------------------|---------------------------|
| PET film, 12.7µm  | 314                              | 659                             | 1                         |
| Metallised PET    | 0.8                              | 1.25                            | 0                         |
| Aluminum foil 6µm | 0                                | 0                               | 0                         |

1. Both normal mylar and aluminized mylar are plastic films, but foil is one kind of metal.
2. The barrier properties of foil are much better than mylar films and the foil is much thicker than mylar films.
3. Aluminized mylar: 0.00003mm - 0.00004mm
4. Foil: 0.01mm
5. Foil is damaged easily by pulling it but BOPET is much stronger.
6. Cost-saving when using mylar than foil, is the reason why mylar is so popular on the market.

Both mylar and foil are showing very good performance on high tensile strength, but the mylar suffers the disadvantage of packing sharp objects, Easy to be pierced. So the engineers laminate the mylar with polyethylene film as a solution.

Another advantage of mylar is high resistance to high temperature, which means this film can be used to produce IC(Electronic components). Besides, Mylar has chemical stability. So it is used in a wide range of applications.