

## Homopolymer Polypropylene



# PHF0702

EVALENE® PHF0702 is a high slip, high antiblock Homopolymer Polypropylene grade for tubular water quench film applications (also referred to as iPP).

**EVALENE® PHF0702** is the recommended grade for iPP in the thickness range of 8 to 15 microns (0.0003" to 0.0006"). Thin iPP made of **EVALENE® PHF0702** has excellent clarity and transparency, delivering outstanding shelf appeal and numerous promotion opportunities. **EVALENE® PHF0702** films are easy to open, allowing faster processing during packaging. They also exhibit exceptional toughness making downgauging a real possibility.

### **FEATURES**

- Outstanding optical properties
- Excellent openability
- Superior toughness
- Good organoleptic properties
- Meets FDA Philippines food-contact requirements
- Halal certified

### TYPICAL APPLICATIONS

• Thin films, from 8 to 15 microns (0.0003" to 0.0006"), for food and general packaging



### **Product Properties**

Property	Test Condition	Test Method	Metric Value	Unit
Melt Flow	230°C/2.16 kg	ASTM D1238	7	g/10 min
Tensile Strength at Yield*	500 mm/min	ASTM D882	23 / 20	MPa
Elongation at Yield*	500 mm/min	ASTM D882	23 / 8	%
Tensile Strength at Break*	500 mm/min	ASTM D882	46 / 11	MPa
Elongation at Break*	500 mm/min	ASTM D882	359 / 287	%
Tensile Modulus*	1% Secant, 25 mm/min	ASTM D882	663 / 710	MPa
Elmendorf Tear Strength*		ASTM D1922	57 / 466	9
% Haze*		ASTM D1003	1.12	%
Gloss*	60° angle of incidence	ASTM D2457	123	%
Coefficient of Friction - Static*		ASTM D1894	0.15	-
Coefficient of Friction - Kinetic*		ASTM D1894	0.10	-

<sup>\*</sup>Properties tested on 10µ film.

Tensile and tear properties are in machine and transverse directions (MD / TD). Properties based on ASTM Type I injection molded samples available upon request.

#### **Typical Processing Conditions**

**Extrusion Temperatures** Chill Roll/Water Bath

This side-by-side comparison clearly highlights that EVALENE® PHF0702 is superior to the other iPP material in mechanical properites. In both toughness and strength, EVALENE® PHF0702 delivers performance that exceeds the film producer's requirements and meets the end-user's expectations. The combination of outstanding tensile, tear and dart drop impact strengths of EVALENE® PHF0702 guarantees that the film is strong enough even just at 8 to 15 microns.

185 - 220°C 23 - 30°C



60

Figure 1. Mechanical property performance of EVALENE® PHF0702 vs. other iPP material

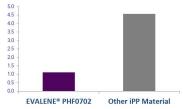


Figure 2. Comparison of haze between EVALENE® PHF0702 and other iPP material (10 micron film)

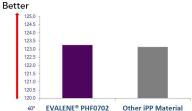


Figure 3. Comparison of gloss between EVALENE® PHF0702 and other iPP material (10 micron film)



Figure 4. Blocking force of EVALENE® PHF0702 (10 micron film)

EVALENE® PHF0702 is the market leader due to its superior clarity. It has 4x less haze than the other iPP material, a feat that **EVALENE®** continuously delivers, resulting in clarity that has become the standard in the iPP market.

**EVALENE® PHF0702** has low blocking force that gives excellent film openability.

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