EVALENE® HDPE PP LLDPE PRODUCT DATA SHEET

# Homopolymer Polypropylene

## PHF1001

EVALENE® PHF1001 is a medium slip, medium antiblock Homopolymer Polypropylene grade for tubular water quench film applications (also referred to as iPP).

**EVALENE® PHF1001** is designed for iPP in the 15 to 100 microns (0.0006" to 0.004") thickness range. Outstanding clarity and gloss, ease of opening and superior toughness are key properties of **EVALENE® PHF1001** films. These films have inherent clarity that translates to stunning packaging for maximum consumer appeal. They likewise have superior toughness that assures packaging integrity and protection.

### FEATURES

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

### TYPICAL APPLICATIONS

- Films from 15 to 100 microns (0.0006" to 0.004") for food and garment packaging

JGSPC is proud of its Integrated Management System (IMS) which encompasses the Quality Management System under ISO 9001:2015, the Environmental Management System under ISO 14001:2015, and the Occupational Health and Safety Management System under OHSAS 18001:2007.

9F-11F, Robinsons Cyberscape Gamma Bldg.
Topaz and Ruby Roads, Ortigas Center
Brgy. San Antonio, Pasig City, 1605 Philippines

Sales: +632 8230 5000 / +632 8397 3200

Barangay Simlong
Batangas City, 4200
Philippines

EVALENE® HDPE PP LLDPE | PRODUCT DATA SHEET

# Product Properties

| Property | Test Condition | Test Method | Metric Value | Unit |
|---|---|---|---|---|
| Melt Flow | 230°C/2.16 kg | ASTM D1238 | 10 | g/10 min |
| Tensile Strength at Yield* | 500 mm/min | ASTM D882 | 23 / 21 | MPa |
| Elongation at Yield* | 500 mm/min | ASTM D882 | 8 / 173 | % |
| Tensile Strength at Break* | 500 mm/min | ASTM D882 | 7 / 11 | MPa |
| Elongation at Break* | 500 mm/min | ASTM D882 | 55 / 193 | % |
| Tensile Modulus* | 1% Secant, 25 mm/min | ASTM D882 | 711 / 738 | MPa |
| Elmendorf Tear Strength* | | ASTM D1922 | 33 / 70 | g |
| % Haze* | | ASTM D1003 | 2.8 | % |
| Gloss* | 60° angle of incidence | ASTM D2457 | 130 | % |
| Coefficient of Friction - Static* | | ASTM D1894 | 0.26 | - |
| Coefficient of Friction - Kinetic* | | ASTM D1894 | 0.15 | - |

*Properties tested on 30μ films.
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 | 170 - 220°C |
| Chill Roll/Water Bath | 23 - 30°C |

Overall, **EVALENE® PHF1001** has superior mechanical properties than the other iPP material. It has higher tensile strength at yield and at break in the transverse direction, better elongation at yield and at break in the transverse direction, higher tensile modulus in the transverse direction, and superior tear strength in the machine direction. The combination of outstanding tear strength and tensile strength results in film toughness that **EVALENE® PHF1001** consistently delivers.

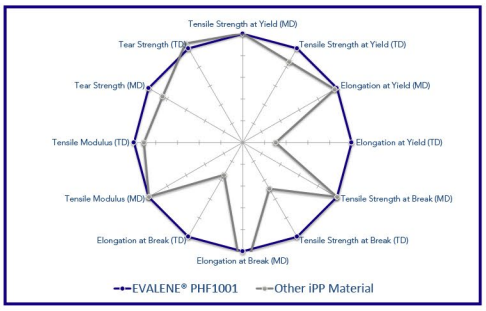


**Figure 1. Mechanical property performance of EVALENE® PHF1001 vs. other iPP material**

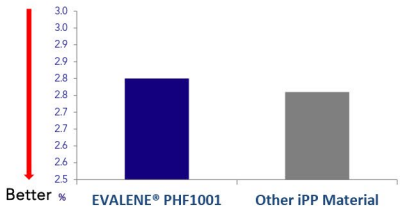


**Figure 2. Comparison of haze between EVALENE® PHF1001 and other iPP material (30 micron film)**

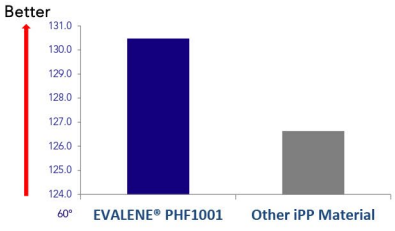


**Figure 3. Comparison of gloss between EVALENE® PHF1001 and other iPP material (30 micron film)**

iPP made of **EVALENE® PHF1001** exhibits outstanding clarity that results in transparent films.

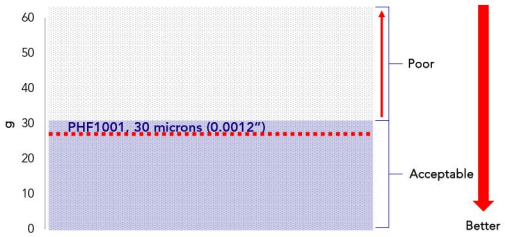


**Figure 4. Blocking force of EVALENE® PHF1001 (30 micron film)**

**EVALENE® PHF1001** has acceptable blocking force that gives good film openability.



Find out more about us at:
**www.jgspetrochem.com**

JG SUMMIT PETROCHEMICALS GROUP
Better Life Through Innovation