

## Technical Data Sheet

**PETILEN F2-21T**  
**Low Density Polyethylene (LDPE)****Description**

PETILEN F2-21T is a low density polyethylene resin produced by high pressure tubular process. The product is developed for general purpose blown film applications used in packaging industry.

**Applications**

Film extrusion: film production for general purpose and display packaging

**Additives**

PETILEN F2-21T contains medium level of antiblock and slip agent. It is heat stabilized.

**Compliance to Regulations**

The formulation and production of PETILEN F2-21T conforms to the compositional requirements of the Commission Regulation (EU) No. 10/2011.

| Properties                        | Typical Values (*) | Units             | Test Methods |
|-----------------------------------|--------------------|-------------------|--------------|
| <b>Resin Properties</b>           |                    |                   |              |
| Melt Flow Rate (190°C/2.16 kg)    | 2.5                | g/10 min          | ASTM D1238   |
| Density, 23°C                     | 0.921              | g/cm <sup>3</sup> | ASTM D1505   |
| Melting Point (DSC, 2nd heating)  | 108                | °C                | ASTM D3418   |
| <b>Film Properties (**)</b>       |                    |                   |              |
| Tensile Strength at Yield, MD     | 11                 | MPa               | ASTM D882    |
| Tensile Strength at Yield, TD     | 10                 | MPa               | ASTM D882    |
| Tensile Strength at Break, MD     | 23                 | MPa               | ASTM D882    |
| Tensile Strength at Break, TD     | 17                 | MPa               | ASTM D882    |
| Elongation at Break, MD           | >200               | %                 | ASTM D882    |
| Elongation at Break, TD           | >500               | %                 | ASTM D882    |
| Tear Strength, MD                 | 250                | cN                | ASTM D1922   |
| Tear Strength, TD                 | 220                | cN                | ASTM D1922   |
| Dart Drop Impact, F <sub>50</sub> | 115                | g                 | ASTM D1709A  |
| Coefficient of Friction           | <0.2               | -                 | ASTM D1894   |
| <b>Optical Properties</b>         |                    |                   |              |
| Haze                              | 7.0                | %                 | ASTM D1003   |
| Gloss, 45°                        | 66                 | GU                | ASTM D2457   |
| <b>Thermal Properties</b>         |                    |                   |              |
| Vicat Softening Point, 10 N       | 89                 | °C                | ASTM D1525   |

(\*) These are typical properties only and are not to be construed as specifications. Customers should confirm results by their own tests.

(\*\*) Film properties are measured on 35 µm blown film, Blow up ratio (BUR) 2.5:1, melt temperature ~170°C.

MD: Machine Direction, TD: Transverse Direction.

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### Recommended Processing Conditions

Film extrusion applications;  
Typical zone temperature: 140 - 180°C  
Typical melt temperature: 160 - 180°C  
Typical blow-up ratio (BUR): 2:1 - 3:1

Processing conditions should be optimized for different equipment design.

### Health, Safety and Food Contact Regulations

The detailed information of the PETILEN F2-21T product is given in Safety Data Sheet and Food Contact Declaration of the product. Please contact your sales representatives or visit web site for the food contact application compliance (e.g. EU, FDA) and other regulatory documents.

### Packing and Storage

The material is packaged in PE bags or in PP Big Bags. The product should be stored in a dry area with an ambient temperature below 50°C. It should be kept away from sunlight, sparks, heat and flame. Inappropriate storage conditions can lead to bad smell, color changes and the deterioration in physical properties. It is advised to process PE resins within 6 months after delivery.

### Recycling

The product is not hazardous or toxic and it is suitable for recycling using available recycling methods.

### Medical Applications Policy

The product mentioned herein is not tested for use in pharmaceutical/medical applications. It is the responsibility of the final product manufacturer to determine that PETKİM product is suitable for intended use.

### Disclaimer

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