# F18010

## LINEAR LOW DENSITY POLYETHYLENE

**FOR BLOWN FILM EXTRUSION**

Relene F18010 is a butene co-monomer based Linear Low Density Polyethylene grade with optimum level of anti-oxidants designed for blown film applications. They have excellent draw down characteristics with very good impact strength and tear resistance.

**BIS Designation Code: IS 7328-2B-FBE-BDA**

### Typical Characteristics

| Property | Test Method | Unit | Typical Value* |
|---|---|---|---|
| Melt Flow Rate (190°C/ 2.16 kg) | ASTM D1238 | g/10 min | 1 |
| Density | ASTM D792 | $g/cm^3$ | 0.918 |
| Tensile Strength at Yield (MD / TD) | ASTM D882 | MPa | 12.5 / 12 |
| Ultimate Tensile Strength (MD / TD) | ASTM D882 | MPa | 38 / 30 |
| Elongation at Break (MD / TD) | ASTM D882 | % | 700 / 800 |
| Tear Strength (MD / TD) | ASTM D1922 | g/µm | 3.3 / 10.3 |
| Co-efficient of Friction (COF) | ASTM D1894 | - | >0.5 |
| Dart Impact Strength, $F_{50}$ (38mm dart, 66cm height) | ASTM D1709A | g/µm | 3.5 |
| Haze | ASTM D1003 | % | 14 |

* Typical values, not to be taken as specification. Mechanical properties are done on 40 $\mu$ blown film made with 1.8mm die gap & 2.5 BUR

### Typical Processing Conditions

Processing temperatures: 180 - 220 °C

Note: Processing parameters mentioned above are for reference only and not to be considered as specifications. They may vary based on the product to be manufactured.

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## Applications

Blown film for lamination film, liquid packaging, surface protection film, stretch cling film etc.

## Regulatory Information

The product complies with Indian Standard IS 10146 on “Specification for Polyethylene for safe use in contact with foodstuffs, pharmaceuticals, and drinking water.” It also conforms to IS 16738:2018 on “Positive list of constituents for polypropylene, polyethylene and their copolymers for its safe use in contact with foodstuffs and pharmaceuticals.”

The grade and the additives incorporated in it also comply with the FDA:CFR Title 21,177.1520, Olefin polymers.

Not to be used in the manufacture of Single Use Plastic (SUP) items prohibited under PWM Rules, 2016.

## Storage Recommendations

Bags should be stored in dry / closed conditions at temperatures below 50°C and protected from UV / direct sunlight

## *DISCLAIMER*

*The information contained herein may include typical properties and processing parameters of the grade or its typical performances when used in respective applications. The values given above are based on analysis of representative samples and not the actual product supplied. It is the customer’s responsibility to inspect and test our grades in order to satisfy itself as to the suitability of the products for customers’ particular application. The customer is solely responsible for all determinations regarding any use of material or product and any process in its area of interest. RIL assumes no obligation or liability for any loss, damage or injury directly or indirectly suffered or incurred as a result of using any of the information or product given in this document. The information and data presented herein is true and accurate to the best of our knowledge. No warranty or guarantee expressed or implied, is made regarding performance or otherwise. This information and data may not be considered as a suggestion to use our products without taking into account existing patents, or legal provisions or regulations, whether national or international. The user of any information and/or data is advised to obtain the latest details from any of the offices of the company or its authorized agents, as the information and/or data is subject to change based on the research and development work undertaken by the company.*

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