

# LD1821

## Low Density Polyethylene Film Extrusion Grade

| Grade   | Additive packages                   | Applications                      |
|---------|-------------------------------------|-----------------------------------|
| LD1821  | Slip (750ppm), Antiblock (1500 ppm) | High Clarity Film Extrusion Grade |
| LD1821A | Slip (None), Antiblock (None)       |                                   |
| LD1821B | Slip (None), Antiblock (1500)       |                                   |

### PRODUCT DESCRIPTION

LD1821 is designed for film extrusion application that requires good optical properties for general purpose high clarity packaging. LD1821 exhibits good impact strength on both flat and creased film. LD1821 is recommended for textile packaging, light produce, bread bags and other thin packaging films enhanced by clarity and sparkle. The base resin LD1821 meets the requirements of the Food and Drug Administration, 21 CFR 177.1520. This regulation allows the use of this olefin polymer in "...articles or components of articles intended for use in contact with food..." Specific limitations or conditions of use may apply.

| Properties*                   | Test Method | Metric Units  |                   | English       |                   |
|-------------------------------|-------------|---------------|-------------------|---------------|-------------------|
|                               |             | Typical Value | Unit              | Typical Value | Unit              |
| Melt Flow Index               | ASTM D1238  | 1.80          | g/10 min.         | 1.80          | g/10 min          |
| Density (23°C)                | ASTM D1505  | 0.921         | g/cm <sup>3</sup> | 0.921         | g/cm <sup>3</sup> |
| <b>Film Properties'</b>       |             |               |                   |               |                   |
| Dart Drop Impact Strength F50 | ASTM D1709  | 90            | g                 | 90            | g                 |
| Tensile Strength at Break     |             |               |                   |               |                   |
| MD                            | ASTM D882   | 27            | MPa               | 4000          | psi               |
| TD                            | ASTM D882   | 23            | MPa               | 3400          | psi               |
| Tensile Strength at Yield     |             |               |                   |               |                   |
| MD                            | ASTM D882   | 10.3          | MPa               | 1500          | psi               |
| TD                            | ASTM D882   | 11            | MPa               | 1600          | psi               |
| Tensile Elongation at Break   |             |               |                   |               |                   |
| MD                            | ASTM D882   | 300           | %                 | 300           | %                 |
| TD                            | ASTM D882   | 500           | %                 | 500           | %                 |
| 1 % Secant Modulus            |             |               |                   |               |                   |
| MD                            | ASTM D882   | 179           | MPa               | 26000         | psi               |
| TD                            | ASTM D882   | 207           | MPa               | 30000         | psi               |
| Elmendorf Tear Strength       |             |               |                   |               |                   |
| MD                            | ASTM 1922   | 360           | g                 | 360           | psi               |
| TD                            | ASTM D1922  | 200           | g                 | 200           | psi               |
| Haze                          | ASTM D1003  | 5             | %                 | 5             | %                 |
| Gloss                         | ASTM D2457  | 70            | %                 | 70            | %                 |

This product is not intended for use in medical applications and should not be used in any such applications.

\* Typical Value of Properties which can vary with in specification limits and are not to be construed as specifications.

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