

# Borealis PE FG5190

Linear Low Density Polyethylene

Borealis AG

## Message:

FG5190 is a Butene Linear Low Density Polyethylene for Film Extrusion. Includes Antioxidant.  
The grade is developed for medium and heavy duty bags, bags and bin liners, dual stretch films, and film applications demanding high puncture resistance and strength. In mixtures with LD, the grade contribute to improve the draw down, seal strength and avoids bum through problems in shrinkfilm.

| General Information                            |                    |                   |             |
|--|--------------------|-------------------|-------------|
| Additive                                       | Antioxidant        |                   |             |
| Features                                       | Antioxidant        |                   |             |
|  | Butene Comonomer   |                   |             |
|  | Good Drawdown      |                   |             |
|  | High Strength      |                   |             |
|  | Puncture Resistant |                   |             |
| Uses   | Film               |                   |             |
|  | Heavy-duty Bags    |                   |             |
|  | Liners             |                   |             |
|  | Shrink Wrap        |                   |             |
|  | Stretch Wrap       |                   |             |
| Forms  | Pellets            |                   |             |
| Processing Method                              | Film Extrusion     |                   |             |
| Physical                                       | Nominal Value      | Unit              | Test Method |
| Density  | 0.919              | g/cm <sup>3</sup> | ISO 1183    |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)      | 1.2                | g/10 min          | ISO 1133    |
| Mechanical                                     | Nominal Value      | Unit              | Test Method |
| Coefficient of Friction (vs. Itself - Dynamic) | 0.80               |                   | ISO 8295    |
| Films  | Nominal Value      | Unit              | Test Method |
| Film Thickness - Tested                        | 40                 | µm                | ASTM D882A  |
| Secant Modulus                                 |                    |                   |             |
| MD : 40 µm                                     | 170                | MPa               |             |
| TD : 40 µm                                     | 210                | MPa               | ISO 527-3   |
| Tensile Stress                                 |                    |                   |             |
| MD : Yield, 40 µm                              | 12.0               | MPa               |             |
| TD : Yield, 40 µm                              | 12.0               | MPa               |             |
| MD : 40 µm                                     | 39.0               | MPa               |             |
| TD : 40 µm                                     | 34.0               | MPa               |             |

| Tensile Elongation       |               |      | ISO 527-3   |
|--------------------------|---------------|------|-------------|
| MD : Break, 40 μm        | 740           | %    |             |
| TD : Break, 40 μm        | 850           | %    |             |
| Dart Drop Impact (40 μm) | 140           | g    | ISO 7765-1  |
| Elmendorf Tear Strength  |               |      | ISO 6383-2  |
| MD : 40 μm               | 1.0           | N    |             |
| TD : 40 μm               | 6.5           | N    |             |
| Optical                  | Nominal Value | Unit | Test Method |
| Gloss (20°, 40.0 μm)     | 95            |      | ASTM D2457  |
| Haze (40.0 μm)           | 12            | %    | ASTM D1003  |
| Extrusion                | Nominal Value | Unit |             |
| Melt Temperature         | 235           | °C   |             |

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

