# CERTENE™ LLGF-220A

Linear Low Density Polyethylene

Muehlstein

## Message:

LLGF-220A is a certified prime, ethylene-octene copolymer designed for production of Cast films needing excellent optics and superior film strength. LLGF-220A applications include stretch wrap, coex and lamination films. LLGF-220A contains no slip and no antiblock. LLGF-220A complies with FDA regulation 21CFR 177.1520(c)3.2a, conditions of use B-H per 21CFR 176.170(c), Table 2.

| General Information | |
|---|---|
| Features | High strength<br>Copolymer<br>Optical<br>Compliance of Food Exposure<br>Octene comonomer |
| Uses | Films<br>Laminate<br>Stretch winding<br>cast film<br>Food packaging |
| Agency Ratings | FDA 21 CFR 176.170(c), Table 2 Conditions of use B- H<br>FDA 21 CFR 177.1520(c) 3.2a |
| Forms | Particle |
| Processing Method | Co-extrusion molding<br>cast film |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 0.920 | g/cm³ | ASTM D1505 |
| Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) | 2.3 | g/10 min | ASTM D1238 |
| **Films** | **Nominal Value** | **Unit** | **Test Method** |
| Film Thickness - Tested | 20 | µm | |
| secant modulus | | | ASTM D882 |
| 1% secant, MD: 20 µm | 138 | MPa | ASTM D882 |
| 1% secant, TD: 20 µm | 159 | MPa | ASTM D882 |
| Tensile Strength | | | ASTM D882 |
| MD: Yield, 20 µm | 8.00 | MPa | ASTM D882 |
| TD: Yield, 20 µm | 7.50 | MPa | ASTM D882 |
| MD: Break, 20 µm | 32.0 | MPa | ASTM D882 |

| | | | |
|---|---|---|---|
| TD: Break, 20 µm | 24.0 | MPa | ASTM D882 |
| Tensile Elongation | | | ASTM D882 |
| MD: Break, 20 µm | 430 | % | ASTM D882 |
| TD: Break, 20 µm | 750 | % | ASTM D882 |
| Dart Drop Impact (20 µm) | 190 | g | ASTM D1709A |
| Elmendorf Tear Strength | | | ASTM D1922 |
| MD : 20 µm | 280 | g | ASTM D1922 |
| TD : 20 µm | 650 | g | ASTM D1922 |
| Optical | Nominal Value | Unit | Test Method |
| Gloss (45°, 20.0 µm, Cast Film) | 85 | | ASTM D2457 |
| Haze (20.0 µm, Cast Film) | 2.0 | % | ASTM D1003 |
| Additional Information | | | |

Film Specimen: 0.8 mils (20 µm) cast film; melt temperature of 500°F



## Recommended distributors for this material

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