



Technical Data Sheet

Clearflex[®] CM406

Linear Low Density Polyethylene

DESCRIPTION

Clearflex[®] CM406 is a hexene copolymer linear low density polyethylene (C6-LLDPE), additivated with antioxidants, suitable for cast film extrusion.

Films manufactured with Clearflex[®] CM406 are characterised by high clarity, optimum elongation, optimum impact and tear resistance.

APPLICATIONS

Clearflex[®] CM406 is recommended for the production of low cling cast film with optimum optical properties and good mechanical resistance.

TYPICAL

PROPERTIES

| Properties | Test Method | Typical value | |
|---|-------------|---------------|-------|
| Resin Properties | | | |
| Melt Flow Index _{190 °C / 2.16 kg} (g/10') | ASTM D1238 | 3.6 | |
| Density (g/cm ³) | ASTM D1505 | 0,926 | |
| Melting point (°C) | PE Method | 127 | |
| Brittleness point (°C) | ASTM D746 | <-70 | |
| Vicat softening point _{1 kg} (°C) | ASTM D1525 | 103 | |
| Film Properties¹ - Thickness 23 µm | | | |
| Tensile strength at yield (MPa) | MD | ISO 527-3 | 11 |
| | TD | | 11 |
| Tensile strength at break (MPa) | MD | ISO 527-3 | 36 |
| | TD | | 30 |
| Elongation at break (%) | MD | ISO 527-3 | 730 |
| | TD | | 850 |
| 1% Secant Modulus (MPa) | MD | ISO 527-3 | 240 |
| | TD | | 250 |
| Tear resistance (Elmendorf) (N/mm) | MD | ISO 6383-2 | 80 |
| | TD | | 180 |
| Coefficient of Friction (dynamic) | | ISO 7765-1 | > 0.5 |
| Impact resistance, F ₅₀ (g) (Dart Drop Test) | | ISO 8295 | 90 |
| Haze (%) | | ISO 14782 | 4 |
| Gloss, 45° (%) | | ASTM D 2457 | 85 |

¹ Typical value for a cast film extruded at 220°-270°C. Actual properties are typical and may vary depending upon operating conditions and additive package.

EXTRUSION CONDITIONS

Clearflex® CM406 is easily processable using cast film technology. Melt temperature should be between 220°C and 270°C.
Clearflex® CM406 can be extruded at thickness below 25µm.

STORAGE AND HANDLING

Clearflex CM406 is supplied in pellet form. This material may readily be conveyed and bulk-fed through equipment designed for conventional pelletised polyethylene resin, provided the equipment is designed to prevent accumulation of the fines and dust particles that are contained in all polyethylene resins. These fines and dust particles can, under certain conditions, pose an explosion hazard. We recommend that the conveying system used be equipped with filters of adequate size, operated and maintained in such a manner to ensure that no leaks develop and earthed adequately. We further recommend that good housekeeping be practised throughout your facility.

Before using this product, read and understand the current POLIMERI EUROPA Safety Data Sheet for this product.

AVAILABILITY

Contact the POLIMERI EUROPA sales office nearest to you regarding availability and your specific application requirements.

FOOD CONTACT STATUS

Clearflex® CM406 complies with the rules and regulations of the European Union, as well as other countries, regarding the use of plastic materials in food contact applications.
Certificates of compliance are available upon request.

TECHNICAL SERVICE

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