



BioLogiQ creates plastics from polysaccharides found in plants. These plastics are designed to enhance both the functional and environmental performance of the packages and products produced with them.

All BioLogiQ compounded plastics start with **NuPlastiQ BioPolymer**, a 100% natural, renewably sourced, plant-based biopolymer.

Description

- One of the **BioBlend® BC Biodegradable/Compostable Resins** designed for mulch films.
- Made from 30% annually renewable agricultural resources, including **NuPlastiQ® CG BioPolymer** (also known as the GP 1000 series), which is certified by TUV to be industrial compostable.
- **BioBlend® BC 27130** is supplied in pellet form, fully compounded.

Applications

- **BioBlend® BC 27130** is intended for agricultural mulch film
- Used for products that require biodegradation and are intended for compost environments.

Properties

| PHYSICAL | TEST METHOD | NOMINAL VALUE | UNITS |
|-------------------------------|-------------|---------------|---------------------------|
| Density: | ASTM D792 | 1.3 | g/cm ³ |
| THERMAL | | | |
| Melt Flow Index | ASTM D1238 | 2.75 – 4.25 | g/10 min (190 °C/2.16 kg) |
| Melting Temperature Range: | ASTM D3418 | 130 | ° C |
| Glass Temperature Range: | ASTM D3418 | 81 – 100 | ° C |
| ADDITIONAL INFORMATION | | | |
| Water Content: | ASTM D6980 | ≤ 0.5 | % |
| MECHANICAL PROPERTIES | | | |
| Tensile Properties | | | |
| Secant Modulus @ 1% | D638 | 120 | MPa |
| Tensile Strength at Break | D638 | 12.6 | MPa |
| Elongation at Break | D638 | 450 | % |
| Flexural Properties | | | |
| Flexural Modulus | D790 | 178 | MPa |
| FILM PROPERTIES | | | |
| Tensile Strength | | | |
| MD | ASTM D882 | 1637 | psi |
| TD | ASTM D882 | 1492 | psi |
| Elongation at Break | | | |
| MD | ASTM D882 | 518 | % |
| TD | ASTM D882 | 558 | % |
| Elmendorf Tear | | | |
| MD | ASTM D1922 | 293 | g |
| TD | ASTM D1922 | 396 | g |
| Dart Drop Test | | | |
| | ASTM D1709 | 253 | g |

Notes:

- 1) The reported film properties are for a monolayer blown film. The thickness was 1.0 mil, and the blow-up ratio was 2.5:1.
- 2) These values are typical properties only and should not be used for specification purposes. End users should confirm results with their own tests.

Processing Considerations

- BC 27130 can be run on existing processing equipment and is generally used for monolayer films.
- Films containing **NuPlastiQ** are slightly more sensitive to processing conditions such as temperature profile, die gap, and blow up ratio. See the **BioBlend** Film Processing Guide for additional information.
- Under normal conditions, processing BioBlends may cause a slight odor and/or smoke. Always use proper ventilation. See the **BioBlend® BC 27130** SDS for details.

Storage and Drying

- Pellets are shipped in sealed moisture-proof bags and are ready to be used as supplied. Until used, they should be stored in a sealed container away from heat.
- If pellets are exposed to a humid environment, they will absorb moisture. If needed, dry pellets by introducing warm, dry air at 60°C for 1-4 hours. Pellets should be <0.5% moisture content prior to processing.