



**DESCRIPTION**

**NuPlastiQ CG 1000 Certified Grade BioPolymers** are plant-based polysaccharide, low crystallinity, thermoplastic resins that offer exceptional functional and environmental benefits. They can be used alone, but they are designed to be blended with biobased and biodegradable resins such as PLA, PHA, and PBAT. **Using NuPlastiQ CG 1000** resins helps reduce both fossil fuel-based plastic content and greenhouse gas generation.

**Applications**

- Designed to be compounded with other bio-based and biodegradable resins to form:
  - **NuPlastiQ BC** Biodegradable/Compostable BioBlends for packaging and films
- CG 1000 can also be compounded with traditional fossil fuel based resins to produce:
  - **NuPlastiQ XP** High Performance BioPolymers for packaging
  - **NuPlastiQ XD** High Durability Polymers for durable goods
- The strength of CG 1000 can allow for significant downgauging, especially for thin film applications.
- CG 1000 maintains the compostability of the resin with which it is compounded
- CG 1000 has passed ASTM D6400 and EN-13432 and is certified to be industrial and home compostable by OK TUV.
- CG 1000 is certified to be marine biodegradable by OK TUV.
- CG 1000 is a USDA Certified Biobased Product.
- Thin films made with CG 1000 have a soft feel.
- Can be used as a stand-alone polymer for certain low temperature, injection molding applications.
- Supplied in pellet form.

**Storage**

- Should be stored in a sealed container in a dry location away from heat.

**Properties**

PHYSICAL	TEST METHOD	NOMINAL VALUE
Density:	ASTM D792	1.40 g/cm <sup>3</sup>
<b>THERMAL</b>		
Melt Flow Index (170 °C/21.6kg):	ASTM D1238	6 g/10 min
Glass Transition Temperature Tg:	Internal Method	50 – 70 °C
<b>MECHANICAL</b>		
Tensile Strength at Yield:	ASTM D638	>30 MPa
Tensile Strength at Break:	ASTM D638	>30 MPa
Young’s Modulus:	ASTM D638	1.5 GPa
Elongation at Break:	ASTM D638	<10%
Dart Impact Resistance:	ASTM D5628	3.5 kg
<b>ADDITIONAL INFO.</b>		
Water Content:	ASTM D6980	≤ 1.0 %

**Drying**

- Delivered in a sealed container, pellets normally do not require drying prior to use. However, if left in opened containers, pellets should be dried to less than 1% moisture prior to processing. Drying of pellets can be performed by introducing warm, dry air at 60°C for 1-4 hours.