



DESCRIPTION

NuPlastiQ GP 1000 General Purpose 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 legacy thermoplastics such as HDPE, LDPE, LLDPE, PP, ABS, TPE, and rHDPE*. **Using NuPlastiQ GP 1000** resins helps reduce both fossil fuel-based plastic content and greenhouse gas generation.

Applications

- Designed to be compounded with traditional plastic resins to form:
 - **NuPlastiQ XP** High Performance BioPolymers for packaging
 - **NuPlastiQ XD** High Durability Polymers for durable goods
- The strength of GP 1000 can allow for downgauging, especially for thin film applications.
- GP 1000 is a USDA Certified Biobased Product.
- Thin films made with GP 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 ³
THERMAL		
Melt Flow Index (170 °C/21.6kg):	ASTM D1238	6 g/10 min
Glass Transition Temperature Tg:	Internal Method	50 – 70°C
MECHANICAL		
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
ADDITIONAL INFO.		
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.

*Recycled or recovered HDPE, including marine & ocean