



» PRODUCT BULLETIN

Gravi-Tech™ BIO Bio-Based Formulations

Gravi-Tech™ BIO bio-based formulations are density modified engineered polymers that contain partially bio-based resin from renewable plant sources. They offer a more sustainable alternative to density modified grades based on prime/virgin polymers.

These polymer formulations have been developed to achieve equivalent performance to prime density modified solutions with added sustainability benefits. They help to reduce product carbon footprint compared to fossil feedstock alternatives, reduce waste, and support the circular economy.

They allow complex designs without expensive tooling, and performance characteristics (density, corrosion and chemical resistance, mechanical performance) can be customized depending on application need.

Gravi-Tech BIO bio-based formulations enable visual surface effects and aesthetics including metallic finish, cool touch, and color variation. They are suitable for applications in packaging and consumer goods such as cosmetic caps and closures, perfume caps, spirit bottle caps, and luxury boxes.

KEY CHARACTERISTICS

- Customized density offering a wide range of specific gravities (1.5–11 gm/cm³)
- Formulated with partially bio-based resin from renewable plant sources
- Broad modulus range, from very flexible to very rigid grades

- Corrosion resistance that withstands oxidization for long-term use and benefit
- Chemical resistance that can be adapted depending on base resin as required
- Provides visual surface effects, aesthetics and cool touch
- Design flexibility and processing ease
- Food contact compliance available

MARKETS AND APPLICATIONS

Applications in packaging and consumer goods in which a more sustainable solution is preferred:

- Cosmetic caps and closures
- Perfume caps
- Spirit bottle caps
- Luxury boxes
- Handles and knobs

SUSTAINABILITY BENEFITS

- Formulated with partially bio-based resin from renewable plant sources
- Reduces waste and supports the circular economy
- Reduces carbon footprint compared to fossil feedstock alternatives
- Simplifies manufacturing and lowers cost versus metal



AVAILABLE GRADES

CHARACTERISTICS	UNITS	Gravi-Tech BIO GT5200-5077 FD Natural	Gravi-Tech BIO RS5200-5001 RS FD Natural	Gravi-Tech BIO RS5200-5001 RS FD Natural X1	Gravi-Tech BIO GT5200-5003 FD Black	Gravi-Tech BIO GT5200-5004 FD Black	Gravi-Tech BIO GT5200-5002 FD Black
Base Resin		Bio-based PP	Bio-based PP	Bio-based PP	Bio-based PP	Bio-based PP	Bio-based PP
Recycled Content/Filler	g/cm	Mineral	Mineral	Mineral	Metallic	Metallic	Metallic
Density (ISO 1183)	g/ccm	1.90	2.0	2.0	2.0	2.5	3.0

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