



» PRODUCT BULLETIN

Gravi-Tech™ REC Recycled Formulations

Gravi-Tech™ REC recycled formulations are density modified engineered polymers based on recycled resin and/or recycled filler from post-industrial recycled (PIR) and/or post-consumer recycled (PCR) sources. They offer a more sustainable alternative to density modified grades that are 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 customizable performance characteristics (density, corrosion and chemical resistance, mechanical performance), depending on application need.

Gravi-Tech REC recycled grades enable visual surface effects and aesthetics including metallic finish, cool touch and color variation, 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 (1.2–11 gm/cm³)
- Based on recycled resin from PIR and PCR sources

- Broad modulus range, from very flexible to very rigid grades
- Corrosion resistance that withstands oxidization for long-term use and benefit
- Chemical resistance can be adapted depending on base resin as required
- Provides visual surface effects, aesthetics, and cool touch
- Design flexibility and processing ease

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 recycled resin from post-industrial recycled (PIR) and/or post-consumer recycled (PCR) sources including ocean bound plastic waste
- Reduces waste and supports the circular economy
- Reduces carbon footprint compared to fossil feedstock alternatives
- Simplifies manufacturing and lowers costs versus metal



AVAILABLE GRADES

CHARACTERISTICS	UNITS	Gravi-Tech REC-CI GT5200-5089 PT Natural	Gravi-Tech REC GT5200-5075 Black X2	Gravi-Tech REC GT5200-5078 Black	Gravi-Tech REC GT5200-5079 Black	Gravi-Tech REC GT5200-5060 Black	Gravi-Tech REC GT5200-5057 Black
Base Resin		Ocean Bound rPP	rPP	rPP	rPP	rPP	rPP
Recycled Content/Filler	g/cm	>98% PIR+PCR	60% PIR/Mineral	>95% PIR/Mineral	>95% PIR+PCR/Mineral	30% PIR/Mineral	30% PIR/Mineral
Density (ISO 1183)	g/ccm	1.2	1.2	1.2	1.2	1.9	2.0

CHARACTERISTICS	UNITS	Gravi-Tech REC GT7300-5034 X2 FD Natural	Gravi-Tech REC GT7300-5036 Black	Gravi-Tech REC GT7300-5025 Black	Gravi-Tech REC GT6000-5032 Black	Gravi-Tech REC GT6000-5031 Black
Base Resin		ABS	rABS/ABS	rABS	rPA6	rPA6
Recycled Content/Filler	g/cm	50% PIR/Mineral	65% PIR/Mineral	10% PIR/Mineral	20% PIR/Mineral	20% PIR/Mineral
Density (ISO 1183)	g/ccm	1.5	1.5	2.2	2.7	2.8

1.844.4AVIENT
www.avient.com



Copyright © 2024, Avient Corporation. Avient makes no representations, guarantees, or warranties of any kind with respect to the information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the information. Avient makes no warranties or guarantees respecting suitability of either Avient's products or the information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the information and/or use or handling of any product. AVIENT MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the information or products reflected by the information. This literature shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.