

Alphagary's holistic approach to sustainability

The United Nations Brundtland Commission defines sustainability as “Meeting the needs of the present without compromising the ability of future generations to meet their own needs.” **At Alphagary, reducing carbon footprint is more than an aspiration.** We are taking actions at our facilities such as adopting green energy, upgrading to energy-efficient equipment, and recovering energy generated by internal systems.

We are formulating products with recycled content, as well as bio-based, renewable ingredients and participating in circularity programs. Like you, we are mindful of the impact we have on local communities as well as the environment and future we are leaving for our children. As part of the Orbia community of companies, sustainability is an integral part of our commitment to help advance life around the world.



Reducing the ecological impact at our facilities

RENEWABLE ENERGY and ENERGY EFFICIENCY

- Green energy at Alphagary Melton Mowbray (UK)
- Steam reduction at Alphagary Altamira (MX)
- Energy recovery systems (heat, water)
- Investing in state-of-the-art production equipment

CIRCULARITY PROGRAMS

- Alphagary Chinley (UK): collecting post-industrial rigid PVC off-cuts
- Alphagary Altamira (MX) and Cartagena (CO): collecting post-consumer recycled material to be used in INFINITUDE compounds.

Materials formulated to reduce carbon footprint

Compounds

INFINITUDE – flexible PVC compounds with recycled content for mats, hoses, shoe-soles, 60-70°C wire & cable, and various other products.

EVOPRENE® ECO – TPE compounds for general purpose consumer goods products such as garden hoses with recycled and/or biobased content

SUPERKLEEN – PVC compounds with FDA-sanctioned ingredients for healthcare and food contact applications.

MEGOLON® ECO – halogen-free compounds for wire & cable datacom and electrical applications formulated with recycled and/or biobased content.

Stabilizers

VINASTAB® 8000 series: Calcium-zinc stabilizers designed for use in PVC materials with recycled content.

Plasticizers

MEXIFLEX® DOTP plasticizers that incorporate recycled PET (bottles).

Resins

From Orbia Polymer Solutions (Vestolit) FUTURE-FIT resins PVC resin with reduced carbon footprint

When we formulate products with sustainable ingredients, we are mindful of the various testing requirements that govern product safety and integrity. **We work with our customers to align with their goals**, making sure we provide products that are formulated and manufactured in a way that supports integrity and repeatability while delivering more sustainable solutions.



Sustainable Compounds for Wire & Cable Applications



Formulating compounds with recycled and/or biobased ingredients for cable jacket applications requires experience and ingenuity. We understand the careful balance required to withstand strict fire testing protocol and perform seamlessly in the intended application. **We work with our customers to align with their goals**, making sure we provide products that are formulated and manufactured in a way that supports integrity and repeatability while delivering more sustainable solutions.

- Halogen-free compounds for cable jacket applications
- **Experimental grades with select properties as shown**
- Careful raw material selection to uphold formulation integrity
- Mass balance data from suppliers to support sustainability

	Experimental Grade: % recycled and/or biobased polymer % recycled and/or biobased material in formulation	Recycled Content	Recycled Content	Recycled Content	Bio-Based Content
		MEGOLON ECO D22_014_2	MEGOLON ECO D22_014_5	MEGOLON ECO D22_014_11	MEGOLON ECO D22_014_58
Melt flow rate	150°C, 21.6 kg: k/10 min ISO 1133	10	9.3	6.3	3.2
Tensile strength	Extruded Tape - MPa IEC 60811-501	15.3	13	11	8.7
	after 7 days at 100°C, variation % IEC 60811-401	+11	+ 6.5	+25	+36
Elongation at break	% IEC 60811-501	215	150	106	185
	after 7 days at 100°C, variation % IEC 60811-401	-27	-19	-10	-6
Limited Oxygen Index	% ISO 4589-2	33	34	41.5	41.5
Density	g/cc ASTM D792	1.48	1.5	1.55	1.54

We believe in formulation integrity. When we formulate products with sustainable ingredients, we are mindful of the various testing requirements that govern product safety and integrity.

Our solutions enable our customers to achieve their sustainability targets:

- Using less energy and water
- Investing in renewable energy / efficiency
- Measuring impact via science-based target initiatives
- Achieving carbon neutrality
- Formulating with integrity: marrying performance with sustainability
- Building partnerships across the value chain



[LINK to Orbia's Impact Report 2023](#)

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