Changing plastic.
For good.

IM108 - Impact-Resistant Bioplastic for Injection Molding

IM108 is a bioplastic based on PLA, suitable for use in a variety of injection molding applications requiring very high impact resistance. The formulation is based on a high proportion of renewable raw materials, which allows for a reduction in carbon footprint by up to 78% compared to conventional fossil-based plastics.

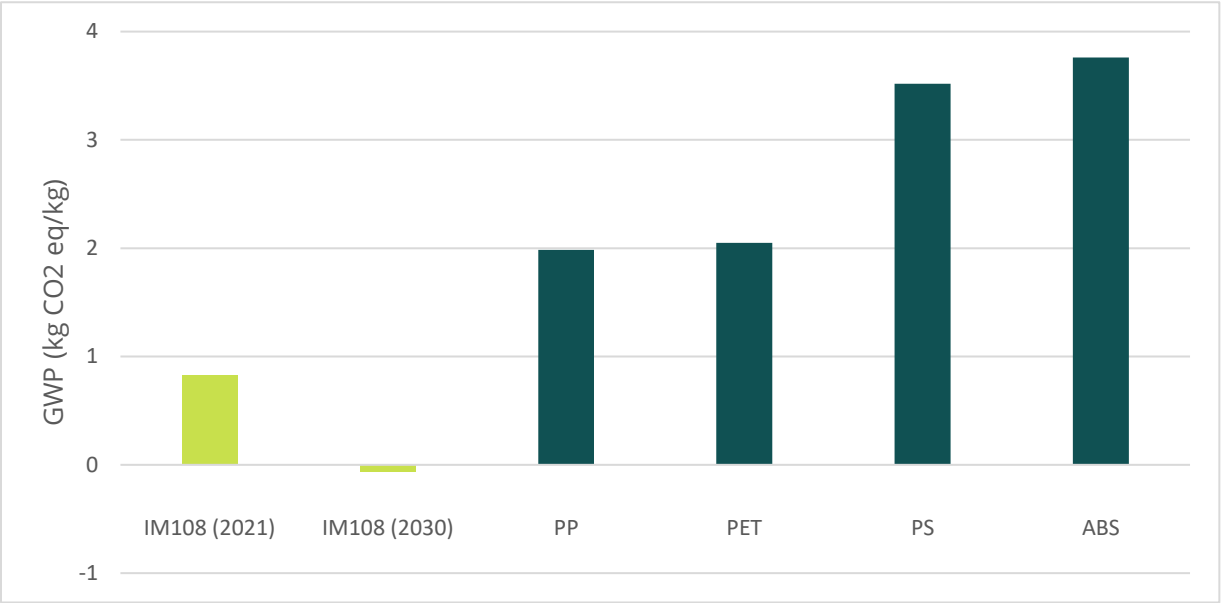
- Up to 78% lower CO2 footprint
- High proportion of renewable content
- Recyclable
- Free from permanent microplastics
- Food safe
- Very high impact resistance

Environmental Benefits

IM108 has been developed to be a sustainable alternative to fossil-based plastic for injection molding. A high proportion of the raw material comes from renewable sources. According to life cycle assessment calculations (LCA), IM108 has a global warming potential (GWP) of 0.83 kg CO2 eq./kg of manufactured material (cradle-to-gate)*. This is significantly lower than conventional plastic (see diagram below) and shows how switching to BIQ Materials IM108 noticeably reduces the CO2 footprint of your company's products. Our ambition is to continuously reduce the environmental footprint of our materials, with the goal of reducing GWP to -0.06 kg CO2 eq./kg of manufactured material by 2030. Please contact us to discuss how you can improve the environmental profile of your products.

* The CCaLC2 software, version 1.7, and its database were used to perform this life cycle analysis.

Global Warming Potential for IM108 Compared to Conventional Plastic



Recyclable and Biodegradable

IM108 is biodegradable but can also be recycled or incinerated, thus having many ways to complete the carbon cycle when its usage period is over. Through recycling, the carbon footprint can be further reduced. In this way, it is a good material choice for companies that want to mark their transition towards a circular economy with a reduced environmental footprint. Compared to conventional plastics, PLA breaks down as carbon dioxide and water over time in the environment. If it ends up in nature, it does not leave any permanent microplastics behind.

An Easy Transition

IM108 stands out with very high impact strength combined with good processability. It can replace fossil-based plastic in many different injection molding tools and applications, which both simplifies and reduces the cost of transitioning to bioplastic. Please contact us, and we will help your company make the switch.

Food Safety

All raw materials used in the formulation are approved for contact with food according to EU Regulation 10/2011. For more information, please contact BIQ Materials, and we will gladly provide a declaration of compliance.

Technical Data

The table below shows a selection of properties for IM108

Parameter	Value	Unit	Method
Color	Easy to color	-	-
Density	1,32	Kg/dm3	ISO 1183
Melt Flow Index (190 °C; 2,16 kg)	17	g/10	ISO 1133
Melting Temperature	175	°C	Internal
E-modulus	2300	MPa	ISO 527
Charpy Impact Test (unnotched)	170 (partial break)	kJ/m²	ISO 179
Proportion of Renewable Raw Material	79*	%	Internal

*The remaining content consists of non-bio-based but biodegradable polymers and processing aids.