

PE598 – Flame-Retardant Bioplastic for Profile Extrusion



PE598 is a bioplastic based on PLA, suitable for use in a variety of profile extrusion applications where flame retardancy is necessary. The formulation is based on a high proportion of renewable raw materials, which allows for a reduction in carbon footprint by up to 72% compared to conventional fossil-based plastics.



Environmental Benefits

PE598 has been developed to be a sustainable alternative to fossil-based plastic for profile extrusion. A high proportion of the raw material comes from renewable sources.

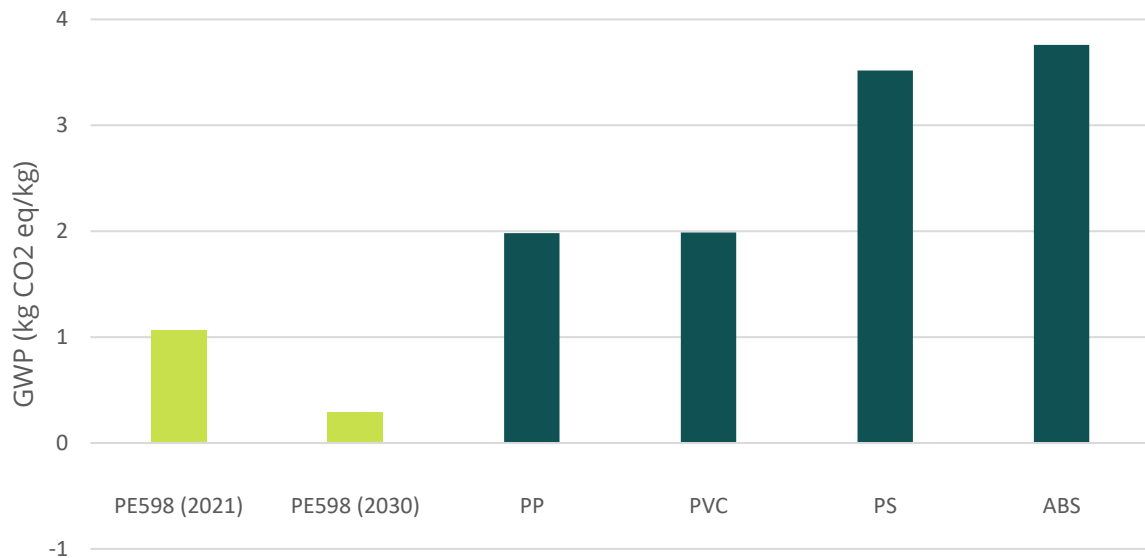
According to life cycle assessment calculations (LCA), PE598 has a global warming potential (GWP) of 1.06 kg CO₂ eq./kg of manufactured material (cradle-to-gate)*. This is significantly lower than conventional plastic (see diagram below) and shows how switching to BIQ Materials PE598 noticeably reduces 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 0.29 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.

-  Up to 72% lower CO₂ footprint
-  Very high proportion of renewable content
-  Flame-retardant
-  Recyclable
-  Halogen-free
-  Heat-resistant

Global Warming Potential for PE598 Compared to Conventional Plastic



Recyclable and Biodegradable

PE598 can also be recycled or incinerated, thus having multiple 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.



An Easy Transition

PE598 stands out with properties such as flame retardancy and heat resistance combined with good processability. It can replace fossil-based plastic in many different profile 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.

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Technical Data

The table below shows a selection of properties for PE598

Parameter	Value	Unit	Method
Color	Easy to color	-	-
Density	1,38	kg/dm	ISO 1183
Melt Flow Index (190 °C; 2,16 kg)	3	g/10	ISO 1133
Melting Temperature	155	°C	Internal
E-modulus	3200	MPa	ISO 527
Charpy Impact Test (utan märke)	25 (complete break)	kJ/m2	ISO 179
Glow Wire Test	750	°C	IEC 60695-2-10
Flammability Open flame	Självsläckande	-	Internal
Ball Pressure Test (not annealed)	54	°C	IEC 60695-10-2
Proportion of Renewable Raw Material	67*	%	Internal

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