Bio-based Carbomer – Redifining Performance

TC-BIO-CARBOMER 380 (INCI: Carbomer) is a **bio-based carbomer** designed to deliver the same functional performance as conventional petroleum-derived carbomers, while offering a significantly improved sustainability profile. It is produced from predominantly renewable, bio-based raw materials, achieving a **natural origin index of ≥95% (ISO 16128)** and enabling a **~50% reduction in carbon footprint** compared to traditional carbomers.

From a technical standpoint, the product provides comparable viscosity, transparency, and stability, making it a drop-in replacement in existing formulations without compromising performance.
Functionally, it acts as a **thickener, stabilizer, and suspending agent**, suitable for a wide range of applications including **creams, lotions, clear gels (including ethanol systems), shampoos, and personal care formulations.**

Key Differentiators:

- Bio-based alternative to standard carbomers (≥95% natural origin)
- ~50% lower carbon emissions across the product lifecycle
- Equivalent performance → true drop-in replacement
- Improved environmental profile (partially biodegradable)
- Strong fit for “green” and sustainable formulation concepts

Specification	
Parameter	**Value**
Appearance	Fluffy, white powder
Viscosity (0.2 % Mucilage, 20 rpm, 25 °C, pH 7.3 ~7.8, mPa·s)	13.000-30.000
Viscosity (0.5 % Mucilage, 20 rpm, 25 °C, pH 7.3 ~7.8, mPa·s)	40.000-60.000
Transmittance (0.2 % Mucilage, 420 nm, %)	≥ 85
Transmittance (0.5 % Mucilage, 420 nm, %)	≥ 85

Want to know more?

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