

TAPIOKA STARCH BASED PLASTIC

TPS – thermoplastic starch, biodegradable

Injection molding grade resin with a BBC (biobased carbon content) of 95% based on Tapioka starch



MATERIAL PROPERTIES

Material shows lower mechanical strength and thermal properties than PLA. However, it comes with a significantly lower CO₂ footprint (0.182 kg CO₂ per kg) than most bio-based materials

APPLICATION

It is used for molded products such as bowls, trays, containers and cups. Most of the applications are single use products. It complies with Halal requirements and can be used in general food packaging applications permitted under Muslim law

INVESTIGATION

Material shows a high standard deviation for viscosity over time. This results in a fluctuating pressure. Compression and holding phase are varying significantly. With shear rate control these standard deviations can be reduced by 70% and the process can be stabilized sustainably.

