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### *TP-50L Bio-PE masterbatch*

Linear low density polyethylene (LLDPE) is compounded with thermoplastic starch (TPS) attaining 50% biomass content. Depending on the application, TP-50L masterbatches can be dryblended with LLDPE blown film grades up to 50%. Cassava starch is used with the aim to provide high content of renewable raw material and reduce green house gas emissions. Can be processed with regular LLDPE and LDPE blown film machines.

**Product description:** TP-50 is a series of polymer masterbatches consisting thermoplastic starch (TPS) content of 50% with a milky yellowish appearance. Intended to be used for blown film extrusion. Film properties depends on the blown film formulation, thickness and processing conditions.

**Preparations:** It is recommended to use fresh, unopened bags during processing.

**Technical data:**

Properties (Units)	Value	Test method
Polymer carrier	LLDPE	N/A
Density (g/cm <sup>3</sup> )	1.1	ASTM D 792
Melt flow index, 190C/2.16kg (g/10min)	2.5	ASTM D 1328
Tensile strength at break, MD (MPa)	>34	ASTM D 882
Tensile strength at break, TD (MPa)	>16	ASTM D 882
Elongation at break, MD (%)	>450	ASTM D 882
Elongation at break, TD (%)	>700	ASTM D 882

Remark: Tested on films with thickness of 30µm, BUR 2.5

**Standard packaging:** TP-50L Bio-PE masterbatch will be delivered in 25kg loose bags. All packagings includes barrier layer to prevent moisture uptake. Product will be arranged on top of wooden pallets for handling.

**Storage instruction:** Product should be stored under dry, cool conditions protected from direct sun light. Storage life time is one year at a max. temperature of 25°C. Other storage conditions may impair the quality of the masterbatch.

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