



Brightplus



## BrightBio® rPE recycled plastic granulate

BrightBio® rPE plastic granulate is made from 100% recycled raw material for reuse in industrial applications.

Raw material is PE-plastic which is collected as forestry and agricultural side-streams. Previously the side-streams have been incinerated after use. In cooperation with our partner, we upcycle this raw material as a valuable resource and help to reduce demands for virgin PE.

**Brightplus** is an innovative renewable materials manufacturing company from Finland. We specialise in design and development of new functional properties for industrial biomaterial solutions.

We cater for industries like consumer goods, cosmetics, construction and packaging.

Read more: [www.brightplus.com](http://www.brightplus.com)



Raw material is PE-plastic collected from the ground as forestry and agricultural side-streams.



**Lakeuden Ympäristöhuolto** treats and processes the collected material into clean and reusable granulate.



**Brightplus** measures and confirms the quality of each granulate batch and modifies the functionality of the material with BrightBio technology as necessary.

# BrightBio rPE Technical Data

Parameter	R103 LDPE	Competitor Post-consumer rLDPE	Competitor Industry side-stream rLDPE
Modulus of elasticity (MPa)	222	N/A	>170
Tensile strength (MPa)	17	12	14
Tensile strain at break (%)	163	N/A	55
Tensile stress at break (MPa)	14	22	>13
Tensile strength at yield (MPa)	7.7	25	18
Tensile strain at yield (%)	5.9	2.8	2.1
Density (g/cm <sup>3</sup> )	0.94	0.94	0.94
Melt flow index [g/10 min], 190°C, 2.16 kg	0.37	0.2	0.8-1.3
Colour	Black	Gray	Black
Origin of material	100% recycled	50+-10% LDPE 50+-10% LLDPE	<96% recycled

Processing temperature of BrightBio® rPE R103 LDPE is 180°C-210°C.

## Processing

- Injection Molding
- Blow Molding
- Extrusion
- Vacuum Forming

## Applications

- Agricultural applications, such as seedbeds
- Pipes, thin tubes, wires, cables
- Plastic films

FOR FURTHER INFORMATION

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