

Recycled Polyethylene FibrAQ compound (40% wood fibers)

Description:

Compounded formulation comprising recycled polyethylene with 40 wt% FibrAQ mixed via a Twin-screw extruder. The samples also include 3% coupling agent (conventional MAPE). No further additives were used, such as impact modifier or flowability aids, though they could be used to further improve some of the properties.



FibrAQ is Biofiber Tech's product, consisting of surface-modified wood fibers with enhanced hydrophobicity, low moisture absorption and high flowability within polymer matrices.

General

Processing Method	Injection molding
Forms	Pellets
Filler	Surface modified wood fiber, 40% filler by weight
Density	Ca. 1.07 g/cm ³
Renewable carbon content	40%
Recommended Processing temperature	165-185°C
Code name	rPE01-40-01

Typical properties:

Feature	Method	Unit	Values
Tensile strength at Break	ISO 527-2:2012	MPa	18.8
Tensile modulus	ISO 527-2:2012	MPa	1150
Elongation at Break	ISO 527-2:2012	%	11.6
Impact strength (Charpy unnotched; 23°C)	ISO 179-1:2010	kJ/m ²	35.7
Impact strength (Charpy notched; 23°C)	ISO 179-1:2010	kJ/m ²	9.27
MFI (190 °C, 5kg)	ISO 1133-1:2012	(g/10 min)	2.33

The values were measured on standardized test specimens and can be affected by pigmentation, mould design and processing conditions. Biofiber Tech is therefore not responsible for the accuracy of the provided values and cannot give any warranty with regard to the correctness.

Any information, whether verbally or written, is given to the best of our knowledge and in good faith and does not exempt the buyer from carrying out their own investigation. The buyer is solely responsible for confirming the suitability of the product for their specific application.