

TPE FibrAQ compound (20% wood fibers)

Description:

Compounded formulation containing 20% FibrAQ and thermoplastic elastomer mixed via a Twin-screw extruder. The granulate also include 2% coupling agent. 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, 20% filler by weight
Density	Ca. 1.01 g/cm ³
Renewable carbon content	20%
Recommended Processing temperature	160-180°C
Code name	TPE01-20

Typical properties:

Thermoplastic elastomer FibraQ formulation containing 20% wood fibers.

Feature	Method	Unit	Values
Tensile strength	ISO 527-2:2012	MPa	8.95
Tensile modulus	ISO 527-2:2012	MPa	151
Elongation at Break	ISO 527-2:2012	%	48.9
MFI (190°C, 5kg)	ISO 1133-1:2012	(g/10 min)	5.04
Impact strength (Charpy unnotched; 23°C)	ISO 179-1:2010	kJ/m ²	35.1
Shrinkage rate	ISO 294-4	%	0.665
Melting temperature	ASTM D3418	°C	87
Hardness	ISO 7619-1:2010	Shore A	94
Hardness	ISO 7619-1:2010	Shore D	41

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.

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