

Material Data Sheet

GC pro 5545 BOP 20LP41

The following data give an orientation on which mechanical characteristics can be achieved if this batch GC pro 5545 BOP 20LP41 is used in different blends. This batch contains 55 wt% sunflower seed hull fibers as reinforcing agent. We recommend a MVR range of the PP (blend partner) between 20 cm³/10 min – 40 cm³/10 min (190 °C/5 kg). The less batch is used, the tougher the blend partner can be without negatively effecting the process. The values refer to blending with a PP copolymer with a MVR of 40 cm³/10 min (190 °C/5 kg), a E-Modulus of 1200 MPa and a tensile strength of 26 MPa. If other blend partners are used, the values will shift.

Fibers derived from sunflower seed hulls are a side product of sunflower oil production. They are GMO free, do not compete with the foodchain and do not require additional areal. Golden Compound pro has a lower carbon footprint than the materials it is targeted to replace.

Mechanical Properties

Property	Norm	Units	Value	Value	Value	Value
Blending ratio batch:PP			2:1	1:1	1:2	1:3
Density	ISO 1183	g/cm ³	1.02	1.01	0.98	0.97
MVR	ISO 1133 (190 °C/5 kg)	cm ³ /10 min	Depends strongly on the blend partner			
E-Modulus	ISO 527	MPa	1700	1600	1450	1350
Tensile Strength	ISO 527	MPa	20.6	23.6	23.9	24.2
Elongation at break	ISO 527	%	8.8	9.9	10.5	11.0
Charpy unnotched _{23 °C}	ISO 179/1eU	kJ/m ²	22.4	25.4	31.2	33.7
Charpy notched _{23 °C}	ISO 179/1eA	kJ/m ²	6.1	4.9	4.6	5.1

Processing Guidelines

Melt Temperature	°C	180 - 190
Mold Temperature	°C	20 - 60
Drying Temperature	°C	80
Drying Time	h	4
Maximum Moisture Content	%	0.04

