## **POLYblend**

## 45FS GF20

polykemi 
BRINGS OUT THE BEST IN PLASTICS

Features UL listed Fillers Glass fiber

Feature	Value	Unit	Testmethod
PHYSICAL PROPERTIES			
Density	1,22	g/cm³	ISO 1183
MFI at 240°C/5kg	8	g/10min	ISO 1133
MECHANICAL PROPERTIES			
Flexural modulus at +23°C	5700	MPa	ISO 178
Maximum flexural strength	132	MPa	ISO 178
Maximum tensile strength	85	MPa	ISO 527-2
Elongation at break		%	ISO 527-2
Elongation at yield	5,5	%	ISO 527-2
IMPACT PROPERTIES			
Impact strength			
Notched Charpy at +23°C	7	kJ/m²	ISO 179
Notched Charpy at -30°C	6	kJ/m²	ISO 179
Unnotched Charpy at +23°C	20	kJ/m²	ISO 179
Unnotched Charpy at -30°C	20	kJ/m²	ISO 179
THERMAL PROPERTIES			
Heat Distortion Temperature			
HDT 120°C/h at 455kPa (B)	107/107	°C	ISO 75/1
HDT 120°C/h at 1820kPa (A)	100/99	°C	ISO 75/1
Softening temperature			
Vicat 50°C/h at 9,81N (A)	118	°C	ISO 306
Vicat 50°C/h at 49,05N (B)	105	°C	ISO 306
FLAMMABILITY PROPERTIES			
Flammability			
GWT at 2 mm	750	°C	IEC 695-2-1
UL94 at 1.6 mm	HB*		UL94
HARDNESS			
Ball pressure test	100	°C	IEC 60335-1
ADDITIONAL INFORMATION			
Filler content	20	±2%	ISO 3451
Mould shrinkage (with flow)	0,2-0,4	%	ISO 294-4
Mould shrinkage (across flow)	0,2-0,4	%	ISO 294-4
Coefficient of linear thermal expansion (CLTE)	30-35	10E-6/°C	Polykemi

<sup>\*</sup>UL file no. E122538 HDT (annealed/unannealed)

Stated values in this datasheet are approximate. The values originate, if nothing else is stated, from standardised test specimens in natural colour. All information, recommendations and advice given by Polykemi AB or any of its subsidiaries and affiliates, written or verbal, are according to Polykemi AB's knowledge to the date of this edition, correct and given in good faith. It is the responsibility of the customer to test and evaluate if the material suits the application and the environment in which it is intended to be used. Polykemi AB, its subsidiaries and affiliates can not be held responsible or liable for any loss incurred through incorrect or faulty use of the products. When producing details in flame retardant material, corrosion protected steel is to recommend for the mould. Polykemi AB takes no responsibility for any printing errors.

Feature	Value	Unit	Testmethod
PROCESS INSTRUCTIONS			
Drying time	2-8	h	
Drying temperature	90-100	°C	
Maximal moisture content	<0,05	%	
Melt temperature	240-280	°C	
Mould temperature	70-100	°C	
Peripherical screw speed	300-500	mm/s	
Back pressure	60-100	bar	

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During production stops, emptying the cylinder is recommended. Leave the screw in its front most position. For polycarbonate it is also recommended to leave the cylinder temperature at 160-180°C and that the heating on the feeding zone is on. When producing details in flame retardant material, corrosion protected steel is to recommend for the mould. For further information, see the material safety datasheet (MSDS).

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