TECHNICAL DATA SHEET

THERMOFIL ® F610B96

The Dependable PPGF Solution

Sumika Polymer Compounds
Sumitomo Chemical Group

Description

30% glass fibre chemically coupled homopolymer polypropylene compound. UV stabilised.

General

Colour
- Black

Features
- UV Resistance
- Medium Flow
- Good Impact / Strength Balance
- Good Mechanical Properties

Applications
- Automotive & Industrial

Physical Properties	Typical	Value *	Test Method
Reinforcement Content	30	%	ISO 3451/A
Density (23°C)	1.12	g/cc	ISO 1183-1/A
Melt Flow Rate (230°C / 2.16kg)	6	g/10 min	ISO 1133-1/A
Carbon Footprint	1.8	kg CO_2/kg	ISO 14040
Shrinkage (with / across flow) 48h (23°) **	0.2 / 1.0	%	SPC Method

Mechanical Properties	Typical	Value *	Test Method
Tensile Strength (23°C)	90	MPa	ISO 527-2/1A/50
Tensile Elongation at Break (23°C)	3	%	ISO 527-2/1A/50
Tensile Modulus (23°C)	6700	MPa	ISO 527-2/1A/5
Flexural Strength (23°C)	135	MPa	ISO 178/B/10
Flexural Modulus (23°C)	6000	MPa	ISO 178/B/2
Charpy Impact Strength, Notched (23°C)	10	kJ/m^2	ISO 179-1/1eA
Charpy Impact Strength, Notched (-30°C)	8	kJ/m^2	ISO 179-1/1eA
Charpy Impact Strength, Unnotched (23°C)	45	kJ/m^2	ISO 179-1/1eU
Charpy Impact Strength, Unnotched (-30°C)	45	kJ/m^2	ISO 179-1/1eU
Heat Deflection Temperature (1.80MPa)	150	°C	ISO 75-2/A
Heat Deflection Temperature (0.45MPa)	157	°C	ISO 75-2/B

Application Related and Other Properties	Typical	Value *	Test Method
Flammability rating	HB		UL94/3.2

** Not to be used for specification work. Mechanical property tests conducted 40 - 96hrs after injection moulding, per ISO 19069-2*

THERMOFIL ®
The Dependable PPGF Solution

F610B96

Sumika Polymer Compounds
Sumitomo Chemical Group

Injection Moulding Guidelines [+]

Pre-dried Ready for Use	Yes
Pre-drying Conditions (if Required)	2 - 4 hours at 70 - 90°C
Barrel Temperature Profile (typical)	
• Rear	210 °C
• Middle	220 °C
• Front	230 °C
• Nozzle	240 °C
Injection Speed	Medium to fast
Use of Back Pressure	Low
Tool Temperature Requirement	30 - 60°C
Regrind Addition (Maximum)	10% by weight

[+] *For specific guidance tailored to your application contact SPC Technical Support or consult SPC's detailed Processing Guides*

Processing Safety Guidelines [++]

Maximum Barrel Temperature	280°C
Maximum Barrel Residence Time	15 minutes
Spontaneous Ignition Temperature	320°C
Disposal of Purgings and Melts	Allow to cool and recycle via responsible recyclers

[++] *Do not process this material until a full review of the associated Material Safety Data Sheet has been carried out.*

Storage

Store indoors under dry conditions at temperatures less than 60°C and protect from ultraviolet light.

Enquiries

www.sumikaeurope.com

www.sumikapna.com

Disclaimers

General

All information contained in this technical datasheet or otherwise supplied to you is based on our general experience. Although we take commercially reasonable steps to ascertain the accuracy of the information provided, all information is provided on an "as is" basis; we make no representations and give no warranties with respect to the information, express or otherwise, including any representation or warranty on the accuracy, completeness or reliability of such information, merchantability or fitness of the products listed in this datasheet for a particular purpose or use. The property values and applications in this datasheet are believed typical based on our knowledge and experience, but do not constitute any representation or warranty with respect to the product. In particular, none of the product listed in this technical datasheet is designed for any specific application or use, including, but not limited to, medical, pharmaceutical, healthcare or military applications. You are solely responsible for (i) carrying out your own tests and evaluations on our products to determine the suitability of the information and our product for your specific application, intent and use and (ii) the appropriate, safe and legal use, processing, storing, handling, recycling and disposing of our products in accordance with all applicable laws, statutes, rules and regulations. We assume no liability for any damages, losses, claims, demands, costs or expenses arising or resulting from or related to any processing or use of any information or our product, whether used alone or in combination with any other information, product or material. The information contained in this technical datasheet relates exclusively to our products when not used in conjunction with any other product or material. Freedom of use under patents, copyrights and registered designs must not be assumed.

Tool Shrinkage

In relation to the risk of tool shrinkage, we specifically recommend you cutting a prototype tool first and checking the shrinkage figures or measuring the shrinkage of parts produced from similar tooling before cutting a series tool, as wall thickness, gate type and position, flow path ratios and process conditions may materially affect the final tool shrinkage of a component.

Carbon Footprint

Calculation of the carbon footprint is complex. For further information on the methodology used and assumptions made please refer to our website (www.sumikaeurope.com/CO2).