

Application Data for ST-FR309

PBT Brominated: 1.6V0 GWIT >750°C (Test Report)							
ID	Material	Specification	Unit	#1		#2	
1	PBT Resin	0.83	KG	58.5	2925	50.5	2525
2	Glass Fiber	998A	KG	20	1000	30	1500
3	Flame Retardant	BEO	KG	9	450	8	400
4	Toughening Agent	AX8900	KG	3	150	3	150
5	Flame Retardant	ST-FR309	KG	9	450	8	400
6	Lubricant	PETS	KG	0.3	15	0.3	15
7	Antioxidant	1076	KG	0.2	10	0.2	10
	Total			100	5000	100	5000

Test Items				
Test Items	Test Method	Unit	#1	#2
Tensile Strength		MPa	101, 99	116, 118
Flexural Strength		MPa	153, 147, 144	173, 178, 174
Flexural Modulus		MPa	4456, 4513, 4637	7785, 6730, 7171
Charpy Notched Impact Strength		KJ/m ²	8.2, 7.6, 7.5, 7.9, 7.5	11.6, 9.7, 9.7, 9.9, 10.9
Charpy Unnotched Impact Strength		KJ/m ²	66, 65, 64, 58, 51	76, 65, 76, 78, 65
Vertical Burning Characteristics (△: Dripping ignites cotton ↓ : Dripping does not ignite cotton)			2.3, 2.6, 2.6, 1.7, 3.4	2.0, 1.4, 1.8, 2.8, 2.6
	1.6mm	UL	5.0, 3.7, 4.9, 5.2, 4.2	5.0, 3.3, 3.0, 3.0, 2.9
	2.0mm	UL	3.0, 1.8, 2.2, 1.8, 1.7	2.0, 1.6, 2.0, 1.7, 2.1

Disclaimer: All information given and recommendations made herein are based on data which is believed to be reliable. This data is offered in good faith and typical of normal production. Star-Better makes no warranty or representation, expressed or implied, regarding the accuracy of this data or the use of this product. The user is solely responsible for the use of this product. Star-Better disclaims any liability base on any claim of patent infringement.

It is written and explained by the department of technology of Star-Better (Shanghai) Chemical Materials Corporation, Ltd., and the rights of revision is reserved by us. Please refer to the latest version for the product information. It was published in June. 2025. Version 2.1

Beijing: +86-10-82895072 Shanghai: +86-21-62164991 Guangzhou: +86-20-82308865 Hongkong: +852-53046010 E-mail: sales@starbetter.com Web: www.starbetter.com

X: Excessive burning time with dripping)			4.9, 4.0, 5.5, 4.2, 4.1	4.6, 3.2, 3.1, 2.0, 1.6
			0.9, 1.3, 1.1, 1.2, 1.4	1.2, 1.3, 1.7, 1.4, 1.4
	3.2mm	UL	2.0, 1.8, 1.9, 1.8, 2.2	2.2, 1.4, 2.2, 1.7, 1.0
Comparative Tracking Index (CTI)	400	V	PASS PASS	PASS PASS
Ash Content		%	22%	32%
Glow Wire Flammability Index	GWFI	800°C		PASS PASS
		825°C	PASS PASS	NG
		850°C	NG	NG

Disclaimer: All information given and recommendations made herein are based on data which is believed to be reliable. This data is offered in good faith and typical of normal production. Star-Better makes no warranty or representation, expressed or implied, regarding the accuracy of this data or the use of this product. The user is solely responsible for the use of this product. Star-Better disclaims any liability base on any claim of patent infringement.

It is written and explained by the department of technology of Star-Better (Shanghai) Chemical Materials Corporation, Ltd., and the rights of revision is reserved by us. Please refer to the latest version for the product information. It was published in June. 2025. Version 2.1

Beijing: +86-10-82895072 Shanghai: +86-21-62164991 Guangzhou: +86-20-82308865 Hongkong: +852-53046010 E-mail: sales@starbetter.com Web: www.starbetter.com