

产品比较

Technical Data

Product Description	
Mafill® CR XG 5544 H	PP homo/copo Industrial Quality compound , 30 % Glassfilled , black, high heat ageing performance, excellent mechanical properties balance, high flow
	Fibremod GD310U is a 30% chemically coupled glass fibre reinforced polypropylene compound intended for injection moulding.
Fibremod™ GD310U	This material shows excellent mechanical properties also at elevated temperatures.
	The product is available in standard black 8229.
	Applications Fibremod GD310U has been developed especially for demanding applications in under the bonnet applications.
	• Air ducts • Lamp housings • Fans and shrouds
Hanwha Total PP GH43	Special Features • Very high flowability
	Description
	G/F modified Compound PP is modified by glass fiber filling and to improve mechanical rigidity and heat-resistance. It is produced made by modifying . A variety of base PPs, including HIPPP (High Isotactic Polypropylene), with Hanwha Total's special processing technology. Its excellent quality makes it ideal for use in air conditioner fans and automobile cooling fans; and like products requiring high rigidity and high impact-resistance.
	Characteristics
Lupol®	There is a wide selection of Hanwha G/F PP products available for uses in products that require high- and ultra-high rigidity and high flowability. Adjustments depending upon molding conditions present no difficulty. Several Hanwha Total G/F PPs have improved dimensional stability thanks to blends with mica, and fire-resistance ratings of UL94 V-0.
	Applications
	G/F PP helps improve rigidity and impact-resistance simultaneously dimensional stability, while providing heightened heat-resistance. These grades are high-temperature strengths with added.
	The most common uses are in: • Automobile parts, including brackets, switch boxes, cooling fans and oil caps; • Electric and electronic parts, such as air conditioner fans, washing machine drums, pulley/legs for washing machines, and more; • Household/industrial appliances, parts for electric tools, showers, bidets , etc.
Lupol®	Description

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GP2300	General Purpose				
	Application Electrical & Electronic, Automotive Parts				
Hostacom G3 N01 L	Hostacom G3 N01 L is a 30% glass fiber reinforced PP homopolymer, with low melt flow, high stiffness, low CLTE (Coefficient of Linear Thermal Expansion) and low creep under load at elevated temperatures. Product is UL listed in all colors. This grade is delivered in natural color version.				
General	Mafill® CR XG 5544 H	Fibremod™ GD310U	Hanwha Total PP GH43	Lupol® GP2300	Hostacom G3 N01 L
Manufacturer / Supplier	• Ravago Group	• Borealis AG	• Hanwha Total Petrochemical Co., Ltd.	• LG Chem Ltd.	• LyondellBasell Industries
Generic Symbol	• PP, 未指定	• PP, 未指定	• TPO	• PP, 未指定	• PP 均聚物
Filler / Reinforcement	• 玻璃纤维增强材料, 30% Filler by Weight	• 玻璃纤维增强材料, 30% Filler by Weight	• 玻璃纤维增强材料	• 玻璃纤维增强材料, 30% Filler by Weight	• 玻璃纤维增强材料, 30% Filler by Weight
Additive	--	--	• 阻燃性	--	--

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General	Mafill® CR XG 5544 H	Fibremod™ GD310U	Hanwha Total PP GH43	Lupol® GP2300	Hostacom G3 N01 L
Features	- 良好的耐热老化性能 - 流动性高	- 化学耦合 - 可回收材料 - 流动性高	- 尺寸稳定性良好 - 低翘曲性 - 刚性，高 - 高抗撞击性 - 高强度 - 良好的加工性能 - 流动性高 - 耐热性，高 - 收缩性低 - 阻燃性	通用	- 低 CLTE - 高刚性 - 均聚物 - 良好的抗蠕变性 - 流动性低
Uses	--	- 汽车的发动机罩下的零件 - 汽车领域的应用 - 外壳	- 电气/电子应用领域 - 电气元件 - 电器用具 - 动力/其它工具 - 工业应用 - 家用货品 - 汽车领域的应用	- 电气/电子应用领域 - 汽车领域的应用 - 通用	- 电气/电子应用领域 - 汽车领域的应用
Automotive Specifications	--	--	--	GM GMW15702-400022 PP-GF30	--
Appearance	--	黑色	--	--	自然色
Processing Method	--	注射成型	注射成型	注射成型	注射成型

Physical	Mafill® CR XG 5544 H	Fibremod™ GD310U	Hanwha Total PP GH43	Lupol® GP2300	Hostacom G3 N01 L	单位制	测试方法
Density / Specific Gravity							
--	--	--	1.13	1.14	--	g/cm³	ASTM D792
--	1.13	1.13	--	--	--	g/cm³	ISO 1183
23°C	--	--	--	--	1.15	g/cm³	ISO 1183/A
Melt Mass-Flow Rate (MFR)							
230°C/2.16 kg	--	--	7.0	6.0	--	g/10 min	ASTM D1238
230°C/2.16 kg	10	10	--	--	--	g/10 min	ISO 1133
230°C/5.0 kg	--	--	--	--	5.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (230°C/5.0 kg)	--	--	--	--	5.00	cm³/10min	ISO 1133
Molding Shrinkage							
流动：2.00 mm	--	--	0.20 到 0.90	--	--	%	Internal Method
流动：3.20 mm	--	--	--	0.10 到 0.30	--	%	ASTM D955
-- ⁴	--	0.10	--	--	--	%	Internal Method
灰份含量 (625°C)	30	--	--	--	--	%	ISO 3451

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Mechanical	Mafill® CR XG 5544 H	Fibremod™ GD310U	Hanwha Total PP GH43	Lupol® GP2300	Hostacom G3 N01 L	单位制	测试方法
Tensile Modulus							ISO 527-2
--	5300	--	--	--	--	MPa	
23°C	--	--	--	--	6500	MPa	
Tensile Strength							
屈服, 3.20 mm ⁵	--	--	--	83.4	--	MPa	ASTM D638
屈服	65.0	--	--	--	--	MPa	ISO 527-2
断裂, 23°C	--	--	--	--	90.0	MPa	ISO 527-2
-- ⁵	--	--	108	--	--	MPa	ASTM D638
--	--	105	--	--	--	MPa	ISO 527-2
Tensile Elongation							
断裂 ⁵	--	--	3.0	--	--	%	ASTM D638
断裂, 3.20 mm ⁵	--	--	--	3.0	--	%	ASTM D638
断裂, 23°C	--	--	--	--	3.5	%	ISO 527-2
Flexural Modulus							
-- ⁶	--	--	5880	--	--	MPa	ASTM D790
6.40 mm ⁷	--	--	--	4900	--	MPa	ASTM D790
--	5500	--	--	--	--	MPa	ISO 178
-- ⁸	--	6200	--	--	--	MPa	ISO 178
Flexural Strength							ASTM D790
-- ⁶	--	--	147	--	--	MPa	
6.40 mm ⁷	--	--	--	118	--	MPa	
Impact	Mafill® CR XG 5544 H	Fibremod™ GD310U	Hanwha Total PP GH43	Lupol® GP2300	Hostacom G3 N01 L	单位制	测试方法
Charpy Notched Impact Strength							ISO 179/1eA
-20°C	--	9.0	--	--	--	kJ/m²	
23°C	9.0	10	--	--	11	kJ/m²	
Charpy Unnotched Impact Strength (23°C)	--	--	--	--	48	kJ/m²	ISO 179/1eU
Notched Izod Impact							
23°C	--	--	130	--	--	J/m	ASTM D256
23°C, 3.20 mm	--	--	--	780	--	J/m	ASTM D256
23°C	10	--	--	--	--	kJ/m²	ISO 180/1A

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Hardness	Mafill® CR XG 5544 H	Fibremod™ GD310U	Hanwha Total PP GH43	Lupol® GP2300	Hostacom G3 N01 L	单位制	测试方法
Rockwell Hardness (R 级)	--	--	115	--	--		ASTM D785
Thermal	Mafill® CR XG 5544 H	Fibremod™ GD310U	Hanwha Total PP GH43	Lupol® GP2300	Hostacom G3 N01 L	单位制	测试方法
Deflection Temperature Under Load							
0.45 MPa, 未退火	--	--	163	--	--	°C	ASTM D648
0.45 MPa, 未退火	150	162	--	--	155	°C	ISO 75-2/B
1.8 MPa, 未退火, 6.40 mm	--	--	--	155	--	°C	ASTM D648
1.8 MPa, 未退火	130	--	--	--	140	°C	ISO 75-2/A
Vicat Softening Temperature	110	--	--	--	140	°C	ISO 306/B50
RTI Elec (1.5 mm)	--	--	--	65.0	--	°C	UL 746
RTI Imp (1.5 mm)	--	--	--	65.0	--	°C	UL 746
RTI Str (1.5 mm)	--	--	--	65.0	--	°C	UL 746
Flammability	Mafill® CR XG 5544 H	Fibremod™ GD310U	Hanwha Total PP GH43	Lupol® GP2300	Hostacom G3 N01 L	单位制	测试方法
Flame Rating							UL 94
--	--	--	HB	--	--		
1.5 mm	--	--	--	HB	--		
雾化 - 16 hr (100°C)	--	< 2.0	--	--	--	mg	DIN 75201
Additional Information	Mafill® CR XG 5544 H	Fibremod™ GD310U	Hanwha Total PP GH43	Lupol® GP2300	Hostacom G3 N01 L	单位制	测试方法
Emission	--	< 50.0	--	--	--	µgC/g	VDA 277
Injection	Mafill® CR XG 5544 H	Fibremod™ GD310U	Hanwha Total PP GH43	Lupol® GP2300	Hostacom G3 N01 L	单位制	
Drying Temperature	--	80	--	70 到 80	--	°C	
Drying Time	--	2.0	--	3.0 到 4.0	--	hr	
Suggested Max Moisture	--	--	--	0.010	--	%	
Hopper Temperature	--	40 到 80	--	--	--	°C	
Rear Temperature	--	--	180 到 220	190 到 210	--	°C	
Middle Temperature	--	--	180 到 220	200 到 230	--	°C	
Front Temperature	--	--	180 到 220	200 到 230	--	°C	
Nozzle Temperature	--	--	--	210 到 230	--	°C	
Processing (Melt) Temp	--	220 到 260	--	210 到 240	--	°C	

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Injection	Mafill® CR XG 5544 H	Fibremod™ GD310U	Hanwha Total PP GH43	Lupol® GP2300	Hostacom G3 N01 L	单位制
Mold Temperature	--	30 到 50	50 到 80	40 到 60	--	°C
Injection Pressure	--	--	49.0 到 88.3	--	--	MPa
Injection Rate	--	--	快速	--	--	
Holding Pressure	--	30.0 到 60.0	--	--	--	MPa
Back Pressure	--	--	0.490 到 0.981	29.4 到 58.8	--	MPa
Screw Speed	--	--	30 到 80	30 到 60	--	rpm
Injection Notes						
Fibremod™ GD310U	Flow front speed: 100 to 200 mm/s Screw speed: Low to medium					