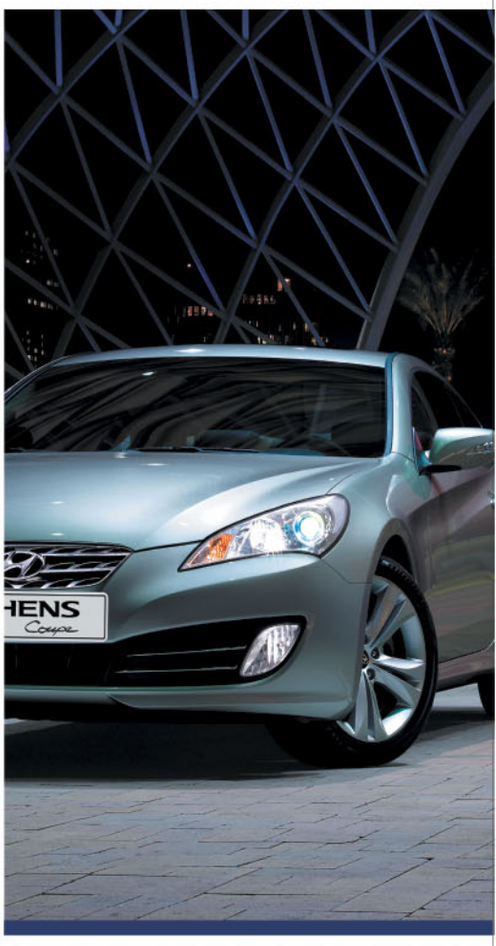
* Does not apply to all products

JUSHI®

FIBERGLASS PRODUCTS FOR

THERMOPLASTICS



巨石集团有限公司®
JUSHI GROUP CO., LTD.

Extrusion and Injection Processes

Rovings for Thermoplastics
Chopped Strands for Thermoplastics

LFT Process

Direct Rovings for LFT

GMT Process

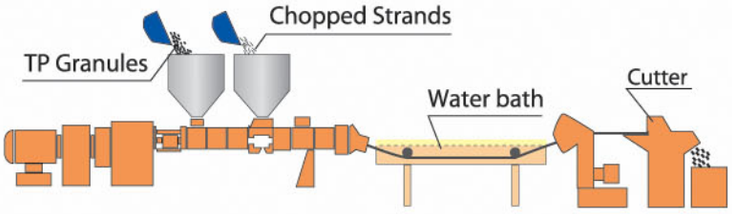
Rovings for GMT
Wet Chopped Strands for GMT

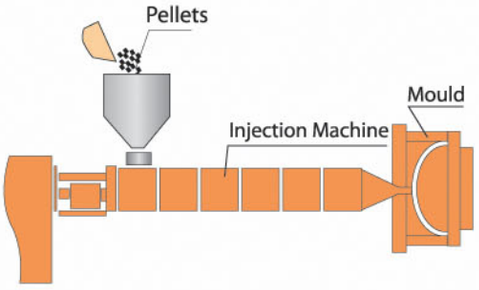
CFRT Process

Direct Roving for CFRT

Extrusion and Injection Processes

The reinforcements (glass fiber roving or chopped strands) and thermoplastic resin are mixed in an extruder. After cooling,they are chopped into reinforced thermoplastic pellets. The pellets are fed into an injection molding machine to form finished parts.





Rovings for Thermoplastics

Rovings for Thermoplastics are ideal reinforcements, coated with a silane-based sizing and compatible with PA, PBT/PET, PP, ABS, AS and PC resins, delivering the following properties: excellent dispersion, superior processing efficiency and mechanical properties in composite products.

Product Code	Filament Diameter (μm)	Nominal Linear Density, tex	Reinforcement efficiency				Product Features
			PA	PBT PET	AS ABS	PP	
988A	13, 14	1000, 2000, 2400	★	★	★	○	Standard product,FDA approval
910	13		★	★	○	★	Excellent processing
990(M)	13		-	★	-	-	Good color
992B	13		★	-	-	-	Excellent boiling water resistance

Remarks: ★*Best*; ☆*Good*; ○*General*

Chopped Strands for Thermoplastics

Chopped Strands for Thermoplastics are treated with a silane-based sizing and compatible with PA, PBT/PET, PP, AS/ABS, PC, PPS/PPO, POM and LCP. Chopped Strands for Thermoplastics are known for excellent strand integrity, superior flowability and processing properties, delivering excellent mechanical properties and high surface quality to finished products.

Resin Compatibility	Product Code	Certification	Product Features
PA6/PA66	560A	FDA	Standard product
	568H	FDA	Excellent glycol resistance
HTN/PPA	560H	-	Super high temperature resistance, extremely low out-gassing, for PA6T/PA9T/PA10T etc.
PBT/PET	534A	FDA	Standard product
	534W	-	Excellent color of composite parts
	534V	-	Excellent hydrolysis resistance
PP/PE	508A	FDA	Standard product, good color
	508H	-	Excellent detergent resistance
ABS/AS/PS	526	-	Standard product
PPS/m-PPO	540	FDA	Standard product, extremely low out-gassing
PC	510	FDA	Standard product, excellent mechanical properties, good color
	510H	-	Super high impact property, glass content below 15 percent by weight
POM	500	-	Standard product
LCP	542	-	Excellent mechanical properties and extremely low out-gassing

End-Use Markets

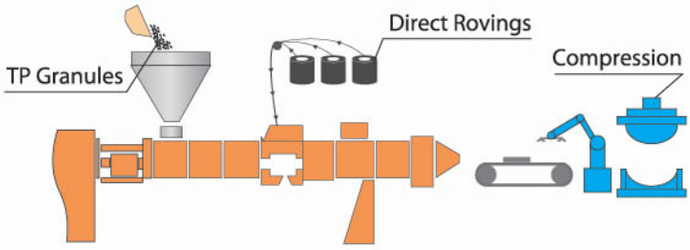
（Automotive / Consumer Goods and Business Equipment / Sports and Leisure / Electrical and Electronics / Building and Construction / Infrastructure）




LFT Process

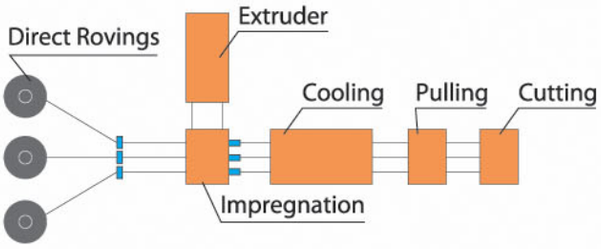
LFT-D

Polymer pellets and glass roving are all introduced into a twin-screw extruder where the polymer is melted and compound is formed. Then the molten compound is directly molded into the final parts by injection or compression molding process.



LFT-G

The thermoplastic polymer is heated to a molten phase and pumped into the die-head. The continuous roving is pulled through a dispersion die to ensure the glassfiber and polymer impregrated fully and to get consolidated rods . After cooling, the rod is chopped into reinforced pellets.



Direct Rovings for LFT

Direct Rovings for LFT are coated with a silane-based sizing and compatible with PP, PA, PBT, TPU, PET and PPS resins.

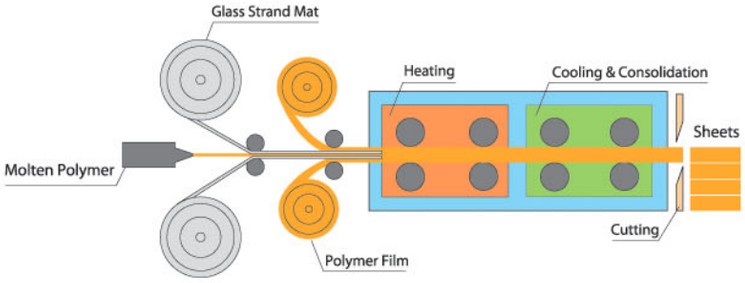
Product Code	Filament Diameter (μm)	Resin Compatibility	Product Features
362K	17	PP	Standard product, excellent processing and mechanical properties, light color, FDA approval
362G	17	PP	Excellent processing and mechanical properties, designed for LFT-D process
352B	17	PA, TPU	Excellent processing and mechanical properties, designed for LFT-G process

End-Use Markets

（Automotive / household appliances / Building）

GMT Process

Generally two layers of reinforcing mat are sandwiched between three layers sheets of polypropylene, which is then heated and consolidated into a semi-finished sheet product. The semi-finished sheets are then heated and molded by stamping or compression process to make complex finished parts.



Rovings for GMT

Rovings for GMT are treated with a special sizing and compatible with modified PP resin. They feature moderate fiber stiffness, excellent ribbonization and dispersion in resin, excellent mechanical and electrical properties.

Product Code	Filament Diameter (μm)	Resin Compatibility	Typical Applications
522	13	PP	Roving for GMT-RD
522A	16, 19	PP	Roving for GMT-RD
360A	14	PP	Roving for GMT-UD

Wet Chopped Strands for GMT

Wet Chopped Strands for GMT are compatible with PP resin and have outstanding flowability

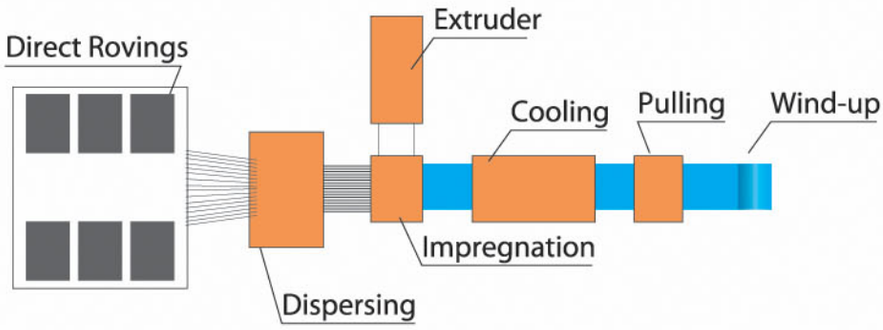
Product Code	Filament Diameter (μm)	Chopped Length (mm)	Typical Applications
502	14	6,12	Designed for LD-GMT

End-Use Markets *（Building / Automotive）*




CFRT Process

A molten mixture of polymer resin and additives is obtained through an extruder. The continuous filament roving is dispersed and impregnated by pulling through the molten mixture. After cooling, curing and coiling, the final material is formed.



Direct Roving for CFRT

Direct Roving for CFRT is compatible with modified PA, PBT, PET, TPU and ABS resins and has excellent mechanical properties.

Product Code	Filament Diameter (μm)	Resin Compatibility	Product Features
352A	13, 14, 17	PA, PBT, PET, TPU, ABS	Compatibility with a multiple of resin systems, excellent dispersion, excellent mechanical properties

End-Use Markets

（Automotive / Building and Construction / Military, Defense and Security / Sports and Leisure）




Fiberglass Products for Open Molding	Spray-up Process
	Hand Lay-up Process
Fiberglass Products for Pipes	Filament Winding Process
	Centrifugal Casting Process
Fiberglass Products for Compression Molding	SMC Process
	BMC Process
	LFI Process
Fiberglass Products for Continuous Profiles	Pultrusion Process
	Continuous Panel Molding Process
Fiberglass Products for Thermoplastics	Extrusion and Injection Processes
	LFT Process
	GMT Process
	CFRT Process
Fiberglass Products for Fabrics and Mats	Weaving Process
	Mat Production Process
Fiberglass Products for Others	Texturizing Process
	Reinforcements for Gypsum

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