

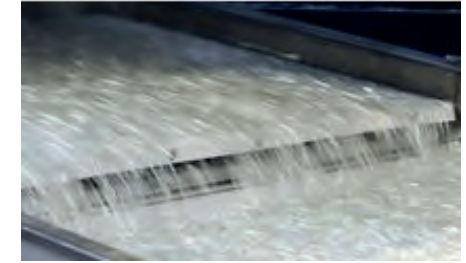
# Our product recommendations for **FIBERS**

- »» Chopped Strands for Thermoplastics Compounding
- »» Chopped Strands for other Processes
- »» Direct Roving
- »» Assembled Roving



## Chopped Strands for Thermoplastics Compounding

ThermoFlow® and StarStran® chopped strands are designed for a wide range of applications and processes, including thermoplastic reinforcement.



TRADENAME	SIZING	FILAMENT DIAMETER [µm] / REGION		POLYMER TYPE																	FDA - NA	FOOD CONTACT EU (> 2016)¹				
				POLYAMIDE				POLYOLEFINS			POLYESTER		OTHERS SEMI-CRYSTALLINE			AMORPHOUS										
		NA ▲	EU ●	PA6	PA66 - HR	PPA	Others	PP	PP-Detergent	PE	PBT	PET	PPS/high heat	PVA	POM	TPU	PC/ABS	Styrenics	PVC							
ThermoFlow®	672		10, 13	●																						
	674		10, 13	●		●	●																		●	
	675	10	10	▲●	▲●	▲●	▲●																		▲	
	701LS	10		▲	▲	▲	▲																		▲	
	770	10	10			▲●	▲●																		▲	
	636	13	10, 13							▲●	▲●	▲●													▲●	▲
	641	10, 14								▲	▲	▲														▲
	738	10, 14								▲		▲														▲
	601	10, 13	10, 13																							▲
	720		13																							
753	11																								▲	
StarStran®	739	16								▲																
	719	14																							▲	



## Chopped Strands for other Processes

StarStran® and ThermoFlow® chopped strands reinforce resins, such as polypropylene, unsaturated polyesters and phenolic. Chop-Pak® and DuraCore® chopped strands are wet dispersible with proven superior performance in HEC and PAA white water, as well as in gypsum slurry.



PRODUCT CHARACTERISTICS			FILAMENT DIAMETER [µm] / REGION		FIBER LENGTH / REGION		RESIN / POLYMER TYPE					CERTIFICATES NA	CERTIFICATES EU	FOOD CONTACT (> 2016) <sup>1</sup>		
TRADENAME	PROCESS	SIZING	NA ▲	EU ●	NA	EU [mm]	PP	UP	PHENOLICS	MAT BINDERS	GYPSUM SLURRIES					
StarStran®	Carding/Needling	991	16	13	51, 102 mm	51	▲●									
	BMC	264		14			6, 12		●							●
		582			13.5			6, 12		●						
		706C	16			1/8", 1/4", 1/2"			▲							
		860			15			6		●						
		862			10.5, 15			4.5, 6, 12		●						
	D-LFT	739	16			1/2"		▲								
	GMT	413	16				1/2"		▲							
423		13, 16				1/2"		▲								
ThermoFlow®	Extrusion/Kneading	701		10,13		4			●							
Chop-Pak®	Wet dispersible (nonwoven mat)	117	11, 13, 16		1/4", 1/2", 3/4", 1"						▲					
		137	11, 13, 16		1/4", 1/2", 3/4", 1 1/4"						▲					
DuraCore®	Gypsum	300	13, 16	16	1/4", 1/2"	12					▲●	UL	UL			
		301		16			6					●		UL		



## Direct Roving

Our StarRov® single-end rovings are manufactured by winding glass fibers directly into a clearly defined tex or yield. Suitable for unsaturated polyester, epoxy, vinylester and thermoplastic resins.

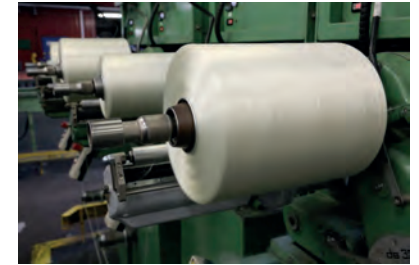


PRODUCT CHARACTERISTICS			REGION		RESIN / POLYMER TYPE	TEX [g/km]	300	410	600	1100	1200	2000	2200	2400	4400	4800	9600	FDA - NA	FOOD CONTACT EU (> 2016) <sup>1</sup>	
TRADENAME	PROCESS	SIZING	NA ▲	EU ●		YIELD [yds/lb]	1655	1210	828	450	414	250	225	207	113	103	56			
						Ø [µm]	13	13	14	16	16	22	16	16	23	23	32			
StarRov®	LFT / D-LFT / Tapes	490		●	PP						●			●		●		▲	●	
		485	▲		PP					▲			▲						▲	
		853	▲	●	PPS/PPA/PBT									▲	●					
		895	▲	●	PA							●		▲	●					
	Organo Sheets / TP-RTM	490		●	PP						●			●			●			●
		895	▲	●	PA						●			▲	●					
		853	▲	●	PPS/PPA/PBT									▲	●					
		886		●	AP Nylon							●			●					
	Pultrusion	090	▲	●	UP/VE/Epoxy/PU					▲	●	▲	▲	●	▲	●	▲	●		
		086		●	UP/VE/Epoxy		●	●	●		●				●		●			
		507	▲		Phenolic											▲				
		886		●	AP Nylon						●				●					
	Weaving / NCF / MAX	086		●	UP/VE/Epoxy		●	●	●		●				●		●			
		090	▲	●	UP/VE/Epoxy					▲	●	▲	▲	●	▲	●	▲	●		
	Filament Winding	086		●	UP/VE/Epoxy		●	●	●		●				●		●			
		090	▲	●	UP/VE/Epoxy/PU					▲	●	▲	▲	●	▲	●	▲	●		



## Assembled Roving

MultiStar® multi-end rovings are manufactured by assembling continuous glass fibers bundles into a roving with defined tex. Suitable to be chopped and distributed to reinforce unsaturated polyester, epoxy, vinylester, PP, PU and other thermoplastic resins.



PRODUCT CHARACTERISTICS			REGION	RESIN / POLYMER TYPE					TEX [g/km]			SMC CLASSIFICATION				STRAND TEX [g/km]						FOOD CONTACT EU (> 2016)†			
TRADENAME	PROCESS	SIZING	EU	UP	VE	Epoxy	PU	PP	2400	4800	5760	LOW PROFILE	GENERAL PURPOSE	WHITE SMC	CLASS A	35	45	50	60	70	80		90		
MultiStar®	SMC	264	•	•	•				•	•			•				•					•	•	•	
		266	•	•	•				•	•			•	•	•								•	•	•
		272	•	•	•				•	•			•	•		•				•			•	•	
	Pipes & Tanks Weaving Thermosets	586	•	•	•	•				•								•		•					
		587	•	•	•	•				•								•							
	Panel	566	•	•						•								•							
		586	•	•	•	•				•									•						
	Headliner / LFI (PU)	264	•					•		•								•							•
		576	•					•			•	•												•	
	GMT	473	•						•	•														•	
Spray-Up	819	•	•	•					•														•		
DuraChop®	Gypsum	230	•						•														•		





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**DISCLAIMER**

Technical specifications as shown in this literature are intended to be used as general guidelines only. Please refer to the Safety Data Sheet and product label prior to using this product. The physical and chemical properties of this product represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Check with the Regional Sales Office nearest you for the most current information. All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on Johns Manville products, please visit <https://www.jm.com/en/login/policies-terms-and-conditions/> or call (800)654-3103.

<sup>1</sup> Only fibers manufactured in the EU (Slovakia) are compliant with regulation 10/2011 (plastics regulation) and 2023/2006 (GMP regulation).

