

# Product Selector Guide

## Reinforcement Fiberglass

extending the capabilities of thermosets and thermoplastics



Our product recommendations for

## Reinforcement Fiberglass

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

## Fiberglass

Johns Manville Engineered Products manufactures fiberglass in the United States and Europe. We offer engineered fiberglass in chopped strand and roving to a variety of applications, to extend the capabilities of thermoplastics and thermosets, and to reinforce gypsum boards.

ThermoFlow<sup>®</sup> chopped strands exhibit exceptional strand integrity, clean feeding, and uniform fiber distribution.

StarRov<sup>®</sup> single-end roving is perfect for fabric processes as it provides a wide and uniform strand width which allows to produce a superior fabric without gaps. StarRov<sup>®</sup> single-end roving is also the perfect choice as an input for LFT or D-LFT processes, providing excellent mechanical properties, low VOC, perfect bundle opening, fast impregnation, perfect wet-out, high dry strength, and low fuzz.

For SMC processes, MultiStar<sup>®</sup> multi-end roving provides excellent fiberglass distribution, wetting, bonding, and SMC performance. For thermosets MultiStar<sup>®</sup> multi-end roving is optimized for chopping and excellent performance in long-fiber reinforced polyurethane panel production, offering excellent unwinding at high speed, great choppability, and low fuzz generation during processing.

Finally, our DuraCore<sup>®</sup> wet chopped strand is boosting the properties of plasterboard in key areas such as fire performance as well as water and impact resistance.



## 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 <sup>1</sup>		
TRADENAME	PROCESS	SIZING	NA ▲	EU ●	NA	EU [mm]	PP	UP	PHENOLICS	MAT BINDERS	GYPSUM SLURRIES					
StarStran®	Carding/Needling	991	16	13	2", 4"	51	▲●									
		264	14	14	1/4", 1/2"	6, 12		▲●							●	
	BMC	582	13.5	13.5	1/4", 1/2"	6, 12		▲●								
		706C	16		1/8", 1/4", 1/2"			▲								
		860	15	15	1/4"	6		▲●								
		862	10.5, 15	10.5, 15	1/4", 1/2"	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"						▲					
		141	13, 16	13, 16	3/4", 1 1/4"	18, 31.8					▲●					
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			RESIN / POLYMER TYPE	TEX [g/km]	300	410	600	1100	1200	2000	2200	2400	4400	4800	9600	FOOD CONTACT USA	FOOD CONTACT EU <sup>1</sup>	
TRADENAME	PROCESS	SIZING		YIELD [yds/lb]	1655	1210	828	450	414	250	225	207	113	103	52			
				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									▲	•					
	Pultrusion	090	UP/VE/Epoxy/PU					▲•	•	▲•	▲	•	▲•	•	▲•			
		086	UP/VE/Epoxy		•	•	•		•				•		•			
	Weaving / NCF / MAX	086	UP/VE/Epoxy		•	•	•		•				•		•			
		090	UP/VE/Epoxy					▲	•	▲	▲	•	▲	•	▲•			
	Filament Winding	086	UP/VE/Epoxy		•	•	•		•				•		•			
		090	UP/VE/Epoxy/PU					▲	•	▲	▲	•	▲	•	▲•			

\* Other strand Tex upon request.

## 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			RESIN / POLYMER TYPE					TEX [g/km] / YIELD			SMC CLASSIFICATION				FOOD CONTACT EU <sup>1</sup>	
TRADENAME	PROCESS	SIZING	UP	VE	Epoxy	PU	PP	2400 207	4800 104	5760 87	LOW PROFILE	GENERAL PURPOSE	WHITE SMC	CLASS A		
MultiStar®	SMC	264	•	•				•	•			•			•	
		266	•	•				•	•		•	•	•		•	
	CC / FW	272	•	•				•	•		•	•		•		
	Weaving	586	•	•	•			•								
		587	•	•	•			•								
	Panel	566	•					•								
		587	•	•	•			•								
	Headliner	264				•		•								•
	LFI	576							•	•	•					
	GMT	473					•	•								
Spray-Up	819	•	•				•									
DuraChop®	Gypsum	230					•									

\* Other strand Tex upon request.



"We engineer our fiberglass to meet and exceed the properties our customers want for their demanding processes and end-uses. Our researchers and developers are going the #JMextraMile on two continents to create the fiberglass solutions needed today - and tomorrow."



#### 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).