

# ThermoFlow® 601

## Product description:

ThermoFlow® chopped strands with 601 sizing are produced by chopping E glass fibers coated with a silane-based sizing. Johns Manville technology enables the product to achieve excellent bulk density and flow characteristics, which allows the fiber to be fed into the extruder with a very good compounding productivity. ThermoFlow® chopped strands with 601 sizing exhibit exceptional strand integrity, clean feeding and uniform fiber distribution when used in glass reinforced polyester (PBT, PET) moulding. ThermoFlow® chopped strands with 601 sizing give excellent mechanical properties in glass reinforced polyester (PBT, PET) and was developed as chopped strands for food contact applications in compliance with COMMISSION REGULATION (EU) Nr.10/2011 of 14 Jan 2011 on plastic materials and articles intended to come into contact with food.

## Resin compatibility:

- Polyester (PBT/PET)



## Designation: Glass type is E-Glass

## Benefits:

- Excellent matrix bonding provides superior mechanical properties in PBT and PET which are improved compared to mechanical properties of standard chopped strands for polyesters
- Excellent strand integrity with effective fiber dispersion leads to optimal fiber distribution
- Up to 50% improved flow vs. non-densified market grades which provides reliable supply to the extruder resulting in more consistent properties
- Reduced fines content increases customer productivity due to less cleaning maintenance
- Improved bulk density increases net package weight translating to less storage and handling costs
- JM will provide a Declaration of Compliance based on the requirements of the Commission Regulation (EU) 10/2011 and the Compliance Scheme of CFGF used in GFRP intended to come into contact with food after evaluation of food contact in the insitute
- JM is implementing internal documentation to fulfill GMP requirements on top of our ISO 9001



JM Designation	Region	Filament Diameter (µm) ISO 1888	Sizing Designation	Chopped Strands Length (mm)
CS EC 10 601 4 mm	EU	10	601	4
TF EC10 601 4 mm	NA	10		4
CS EC 13 601 4 mm	EU	13		4
TF EC13 601 4 mm	NA	13		4

## Mechanical Properties:

Based on 10µm fiber diameter			PBT DAM
<b>Tensile</b> according to ISO 527-2	<b>Strength</b>	<b>MPa</b>	<b>145</b>
	<b>Modulus</b>	<b>GPa</b>	<b>10.0</b>
	<b>Elongation</b>	<b>%</b>	<b>3.4</b>
<b>Charpy</b> according to ISO 179-1/1eU and ISO 179-1/1eA @ 23°C	<b>Unnotched</b>	<b>kJ/m<sup>2</sup></b>	<b>71</b>
	<b>Notched</b>	<b>kJ/m<sup>2</sup></b>	<b>9.4</b>
<b>Glass content</b> according to ISO 3451-1		<b>%</b>	<b>30</b>

Note: the values shown above are typical properties provided only for guidelines purposes within JM product range. Actual values may vary due to processing conditions such as the resin used, compound composition, type and size of the extruder, type and conditions of the injection molding machine.

## Packaging:

Region	Packaging type	Pallet dimensions	Net weight per pallet	Bag per pallet
EU	Bulk Bag	1140 x 1140 mm	1000 kg	1
EU	Octabin	1140 x 1140 x 1200 mm	1000 kg	1
NA	Bulk Bag	45" x 45"	2200 lbs	1

## Storage:

These products should be stored in original packaging in dry, roofed, dust free storehouses. The recommended temperature is between 10°C to 30°C (50°F to 86°F). The products should remain in the original packaging and be conditioned in the work area for a minimum of 24 hours prior to use. The pallets should be single stacked unless otherwise specified on the packaging unit.



Warranty disclaimer :

## Values:

All data represent typical average values.

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.



### US Headquarters

Johns Manville  
717 17th Street  
Denver, CO 80202 - USA  
Phone: +1 (303) 978 2000

### Customer-Service-Offices:

#### North America

Johns Manville  
7500 Dutch Road  
Waterville, OH 43566 - USA  
Phone: +1 (800) 554 4826  
Fax: +1 (419) 878 1538

#### Europe

Johns Manville Slovakia, a.s.  
Strojársená 1  
91799 Trnava - Slovakia  
Phone: +421 (0) 33 5918 249  
Contact: fibers@jm.com

[www.jm.com](http://www.jm.com)