

# ThermoFlow® 641

## Product description:

ThermoFlow® chopped strands with 641 sizing are produced by chopping E-glass fibers coated with a silane based sizing. ThermoFlow® 641 provides excellent strand integrity, bulk density and flow characteristics for clean feeding, and uniform fiber distribution when used in glass reinforced polypropylene.

ThermoFlow® 641 chopped strands is designed to provide superior performance in polypropylene requiring high detergent resistance.

ThermoFlow® 641 is designed to reinforce glass reinforced polypropylene in appliances, automotive and general purpose consumers applications.

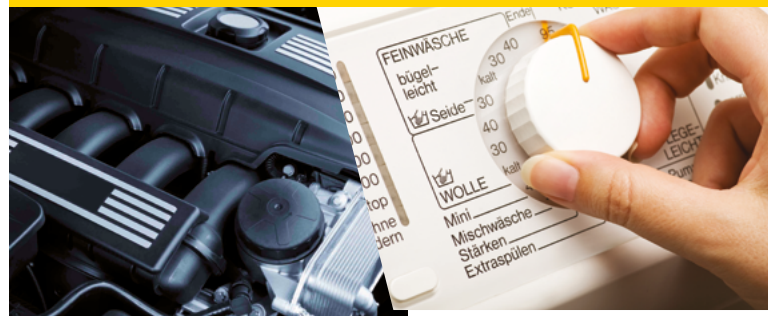
## Resin compatibility:

- Polypropylene (PP)
- Polyolefins

**Designation:** Glass type is E-Glass

## Benefits:

- Exceptional composite mechanical properties
- Superior matrix bonding in Polypropylene
- Optimal strand integrity
- Excellent detergent resistance
- Optimal fiber distribution
- Improved flow yields more consistent properties
- Superior as-molded mechanical properties
- Low yellowness



JM Designation	Region	Filament diameter (µm)	Sizing designation	Chopped strands length
ThermoFlow® 641 10 4 mm	NA	10	641	4 mm
ThermoFlow® 641 14 4 mm	NA	14		4 mm

## Mechanical Properties:

Based on 13µm fiber diameter (PP homopolymer, 1.2% coupling agent)			PP Coupled	PP Uncoupled	PP Coupled after aging*
Tensile according to ISO 527-2	Strength	MPa	80	66	76
	Modulus	GPa	3.5	3.5	3.5
	Elongation	%	4.7	3.0	2.7
Charpy according to ISO 179-1/1eU and ISO 179-1/1eA @ 23°C	Unnotched	kJ/m <sup>2</sup>	57	26	38
	Notched	kJ/m <sup>2</sup>	14	7	9
Glass content according to ISO 3451-1		%	30	30	30

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.

\* Aging in 1% detergent solution 95°C, 21 days.

## Packaging:

Region	Packaging Type	Pallet dimensions (mm)	Net Weight per pallet (kg)*	Bag per pallet
NA	Bulk Bag	45" x 45"	2200 Lbs	1
NA	Bulk Box	45" x 36"	1000 Lbs	-

\* Net weight can vary in function of packaging (values are indicatives).

## 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) at relative air humidity between 50% to 75%. 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.

## Values:

All data represent typical average values.



## Warranty 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.

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### 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](mailto:fibers@jm.com)

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