

# ThermoFlow® 674

## Product description:

ThermoFlow® chopped strands with 674 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 low generation of fuzz compared to standard chopped strand products.

ThermoFlow® chopped strands with 674 sizing exhibits exceptional strand integrity, clean feeding, and uniform fiber distribution when used in glass reinforced PA6 and PA66.

ThermoFlow® 674 provides excellent mechanical properties in glass reinforced Polyamides 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:

- Standard and speciality polyamides



## Benefits:

- Excellent matrix bonding provides superior properties in PA6 and PA66
- Very good mechanical properties
- 674 is intended to be used as reinforcement for plastics in food contact applications in EU (Please contact us for further details)
- Good hydrolysis resistance
- Excellent strand integrity with effective fiber dispersion
- Improved flow provides reliable and consistent supply to the extruder
- Reduced fine content increases customer productivity
- Improved bulk density increases net package weight



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

JM Designation	Region	Filament diameter (µm)	Sizing designation	Chopped strands length (mm)
ThermoFlow® 674 10 4 mm	EU	10	674	4
ThermoFlow® 674 13 4 mm	EU	13	674	4

## Mechanical Properties:

Based on 10µm fiber diameter			PA6	PA66
<b>Tensile</b> according to ISO 527-2	<b>Strength</b>	<b>MPa</b>	<b>178</b>	<b>200</b>
	<b>Modulus</b>	<b>GPa</b>	<b>9.3</b>	<b>9.8</b>
	<b>Elongation</b>	<b>%</b>	<b>3.8</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>91</b>	<b>70</b>
	<b>Notched</b>	<b>kJ/m<sup>2</sup></b>	<b>12.9</b>	<b>11.0</b>
<b>Glass content</b> according to ISO 3451-1		<b>%</b>	<b>30</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 (mm)	Net weight per pallet (kg)	Bag per pallet
EU	Bulk Bag	1140 x 1140	1000 / 1150	1
EU	Octabin	1140 x 1140 x 1200	1000	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) 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.

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 [www.jm.com/en/login/policies-terms-and-conditions](http://www.jm.com/en/login/policies-terms-and-conditions) or call (800)654-3103.



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