

# StarRov® 090

## Product description:

StarRov® 090 direct roving is manufactured by direct winding of continuous glass fibers of defined diameter into a cylindrical roving package. The fibers are coated with a silane sizing most suitable for reinforcement of epoxies, vinylester and polyester resins.

StarRov® 090 direct roving are easy to unwind due to even tension and low fuzz generation. The wettability of StarRov® 090 is excellent and can be processed in different process technologies, such as pultrusion, filament winding and weaving. The end-use composites applications can be found in infrastructure, building, marine, sport & leisure and water transportation market.

## Resin compatibility:

- Epoxy
- Unsaturated polyester
- Vinylester

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

## Benefits:

- Stable runout with even tension
- Very low fuzz
- Sharp angle feeding possible
- High strand integrity
- Excellent wettability
- Tex consistency
- High mechanical properties
- Excellent surface finish
- Very good color impregnation



JM Designation	Region	LOI content (%)	Moisture content max. (%)	Linear density Tex (g/km)/ Yield (yd/lb)
StarRov® 090 9600	EU	0.6	0.15	9600 Tex
StarRov® 090 4800	EU	0.6	0.15	4800 Tex
StarRov® 090 2400	EU	0.6	0.15	2400 Tex
StarRov® 090 1200	EU	0.6	0.15	1200 Tex
StarRov® 090 FS 56	NA	0.8	0.12	56 Yield
StarRov® 090 FS 113	NA	0.8	0.12	113 Yield
StarRov® 090 FS 207	NA	0.6	0.12	207 Yield
StarRov® 090 FS 225	NA	0.6	0.12	225 Yield
StarRov® 090 CS 250	NA	0.6	0.12	250 Yield
StarRov® 090 FS 450	NA	0.6	0.12	450 Yield

**Bobbin dimensions:**

Region	Typical weight	Inner diameter	Outer diameter	Height
EU	19.5 kg	165 mm	300 mm	260-270 mm
NA	44 Lbs.	6 <sup>3</sup> / <sub>8</sub> inch	11 <sup>1</sup> / <sub>4</sub> inch	10 inch

**Packaging:**

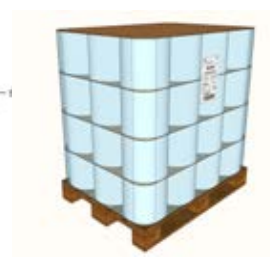
Region	Pallet wrap	Bobbin wrap	Pallet dimensions	Net weight per pallet	Bobbins per pallet
EU	Stretch foil	Tacky foil	1285 x 960 x 1400 mm	930 kg	48
NA	Stretch wrap	Shrink bags	48 x 48 inch	2800 Lbs.	64

**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.



North America



Europe

**Values:**

All data represent typical average values.

Warranty disclaimer :

The physical (or chemical) properties of Johns Manville products represent typical average values obtained in accordance with accepted test methods at the time of manufacture and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Check the Johns Manville office to assure current information. For a copy of the Johns Manville Limited Warranty and Limitation of Remedy or other product information, contact your local Sales Representative.

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