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**Product survey** 

## **E-glass direct roving**

## **Direct roving**

Time		Nominal fineness	Improgration with	Working			
Туре	μm	Roving skein	Impregnation with	Weaving	Winding	Pultrusion	
076	13.5 – 23	300 – 4800	VE, EP, UP	***	**		
086	13.5 – 23	300 – 4800	VE, EP, UP	***	***		
907	13.5 – 32.5	300 – 9600	VE, EP, UP	***	***	***	
908	16.0 – 32.5	1200 – 9600	VE, EP, UP	***	***	***	

## **Quality characteristics:**

- ✓ High wear resistance and due to this low glass fiber fluff
- ✓ Loop free and consistent stress roving skein
   ✓ Good saturating and wetting characteristics
- ✓ High mechanical strength especially with epoxy resins





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Product information

## StarRov<sup>®</sup> E-glass direct roving 076



## **Description:**

The direct roving 076 is drawn "directly" from the glass melting and wound to a roving bobbin without turn. It is characterized by a soft silane size that is especially recommended for weaving process or the production of cores, especially multiaxial fabrics. The direct roving 076 has a good impregnation with polyester-, epoxy- and vinylester resins, low wear and guarantees high mechanical strength of the final product.

The product is made by E-glass, marked as aluminum-borosilicate glass according to DIN 1259-1 and ASTM D 578.

## **Quality characteristics:**

- ✓ High wear resistance and due to this low glass fiber fluff
- ✓ Loop free and consistent stress roving skein
- ✓ Good saturating and wetting characteristics
- ✓ High mechanical strength especially with epoxy resins

	Unit	PR 80 300 076	PR 80 410 076	PR 120 600 076	PR 160 900 076	PR 220 1200 076	PR 220 2400 076	PR 220 4800 076
Filament diameter	μm	13.5	16	15.5	16.5	16	16	23
Nominal fineness roving skein	tex	300	410	600	900	1200	2400	1200
Size base		silane	silane	silane	silane	silane	silane	silane
Bobbin weight	kg	16 +/-1	16 +/-1	18 +/-1	18 +/-1	18 +/-1	18 +/-1	18 +/-1





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## Measurable parameters

	Method	PR 80 300 076	PR 80 410 076	PR 120 600 076	PR 160 900 076	PR 220 1200 076	PR 440 2400 076	PR 440 4800 076
Glowing loss	ISO 1887	0.45	0.45	0.50	0.60	0.60	0.60	0.60
Moisture content	ISO 3344	0.15	0.15	0.15	0.15	0.15	0.15	0.15
linear density (titer)	ISO 1889	300	410	600	900	1200	2400	4800
Tensile strength	ISO 3341	120	120	200	300	450	850	no info

## Packaging and labeling:

The direct roving is produced in the shape of a cylindrical bobbin with inside unwinding. The bobbins are single packed in foil and delivered on pallets.

Bobbin height: 250 mm
Bobbin packaging: PE-foil
Bobbins per pallets: 48 pieces

Pallet: ca. 920 kg net (size: 120 x 88 cm or 126 x 95 cm)

Each packing unit is marked with the following information:

Producer, product name, batch, gross- / net weight, product code, production date, packing code

#### Transport and storage conditions:

The product is transported in closed and moisture protected vehicles. The supply is effected with quality certificate.

These products should be stored in original packaging in dry, roofed and dust-free warehouses. The recommended temperature is between 10°C and 30°C at a relative air moisture between 50% and 75%.

Before working the products should be conditioned in original packing in the working area for at least 24 hours. The pallets may not be stacked if there are no other instructions on the packing.





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## StarRov<sup>®</sup> E-glass direct roving 086



## **Description:**

The direct roving 086 is drawn "directly" from the glass melting and wound to a roving bobbin without turn. It is characterized by a soft silane size that is especially recommended for weaving process or the production of cores, especially multiaxial fabrics. The direct roving 086 has a good impregnation with polyester-, epoxy- and vinylester resins, low wear and guarantees high mechanical strength of the final product.

The product is made by E-glass, marked as aluminium-borosilicate glass according to DIN 1259-1 and ASTM D 578.

## **Quality characteristics:**

- ✓ High wear resistance and due to this low glass fiber fluff
- ✓ Loop free and consistent stress roving skein
- ✓ Good saturating and wetting characteristics
- ✓ High mechanical strength especially with epoxy resins

	Unit	PR 80 300 086	PR 120 600 086	PR 220 1200 086	PR 440 4800 086
Filament diameter	μm	13.5	15.5	16	23
Nominal fineness roving skein	tex	300	600	1200	4800
Size base		silane	silane	silane	silane
Bobbin weight	kg	18 +/-1	18 +/-1	18 +/-1	18 +/-1





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	Method	PR 80 300 086	PR 120 600 086	PR 220 1200 086	PR 440 4800 086
Glowing loss	ISO 1887	0.45	0.60	0.60	0.60
Moisture content	ISO 3344	0.15	0.15	0.15	0.15
linear density (titer)	ISO 1889	300	600	1200	4800
Tensile strength	ISO 3341	120	200	450	no info.

## Packaging and labeling:

The direct roving is produced in the shape of a cylindrical bobbin with inside unwinding. The bobbins are single packed in foil and delivered on pallets.

Bobbin height: 255 mm

Inside/outside diameter: 160 mm/300 mm

Bobbins per pallets: 48 pieces

Pallet: ca. 920 kg net (size: 120 x 88 cm or 126 x 95 cm)

Each packing unit is marked with the following information:

Producer, product name, batch, gross- / net weight, product code, production date, packing code

#### Transport and storage conditions:

The product is transported in closed and moisture protected vehicles. The supply is effected with quality certificate.

These products should be stored in original packaging in dry, roofed and dust-free warehouses. The recommended temperature is between 10°C and 30°C at a relative air moisture between 50% and 75%.

Before working the products should be conditioned in original packing in the working area for at least 24 hours. The pallets may not be stacked if there are no other instructions on the packing.





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**Product information** 

# StarRov<sup>®</sup> E-glass direct roving 907



## **Description:**

The direct roving 907 is drawn "directly" from the glass melting and wound to a roving bobbin without turn. It is characterized by a soft silane size that is especially recommended for weaving process or winding and pultrusion. The direct roving 907 has a good impregnation with polyester- epoxy- and vinylester resins, low wear and guarantees high mechanical strength of the final product, especially with epoxy resins.

The product is made by E-glass, marked as aluminium-borosilicate glass according to DIN 1259-1 and ASTM D 578.

## **Quality characteristics:**

- $\checkmark$  High wear resistance and due to this low glass fiber fluff
- ✓ Loop free and consistent stress roving skein
- ✓ Good saturating and wetting characteristics

	Unit	PR 80 300 907	PR 80 410 907	PR 120 600 907	PR 440 2400 907	PR 440 4800 907	PR 440 9600 907
Filament Diameter	μm	13.5	16	15.5	16.5	23	32.5
Nominal fineness roving skein	tex	300	410	600	2400	48000	9600
Size base		silane	silane	silane	silane	silane	silane
Bobbin weight	kg	20 +/-1	20 +/-1	20 +/-1	20 +/-1	20 +/-1	19 +/-1





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	Method	PR 80 300 907	PR 80 410 907	PR 120 600 907	PR 440 2400 907	PR 440 4800 907	PR 440 9600 907
Glowing loss	ISO 1887	0.45	0.45	0.50	0.60	0.60	0.60
Moisture content	ISO 3344	0.15	0.15	0.15	0.15	0.15	0.15
Linear density (titer)	ISO 1889	300	410	600	2400	4800	9600
Tensile strength	ISO 3341	120	120	200	no info	no info	no info

## Packaging and labeling:

The direct roving is produced in the shape of a cylindrical bobbin with inside unwinding. The bobbins are single packed in foil and delivered on pallets.

Bobbin height: 255 mm

Inside/outside diameter: 160 mm/300 mm

Bobbins per pallets: 48 pieces

Pallet: ca. 920 kg net (size: 120 x 88 cm or 126 x 95 cm)

Each packing unit is marked with the following information:

Producer, product name, batch, gross- / net weight, product code, production date, packing code

#### Transport and storage conditions:

The product is transported in closed and moisture protected vehicles. The supply is effected with quality certificate.

These products should be stored in original packaging in dry, roofed and dust-free warehouses. The recommended temperature is between 10°C and 30°C at a relative air moisture between 50% and 75%.

Before working the products should be conditioned in original packing in the working area for at least 24 hours. The pallets may not be stacked if there are no other instructions on the packing.

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Product information

## StarRov<sup>®</sup> E-glass direct roving 908



## **Description:**

The direct roving 908 is drawn "directly" from the glass melting and wound to a roving bobbin without turn. It is characterized by a soft silane size that is especially recommended for weaving process or winding and pultrusion. The direct roving 908 has a good impregnation with polyester- epoxy- and vinylester resins, low wear and guarantees high mechanical strength of the final product, especially with epoxy resins.

The product is made by E-glass, marked as aluminium-borosilicate glass according to DIN 1259-1 and ASTM D 578.

## **Quality characteristics:**

- $\checkmark$  High wear resistance and due to this low glass fiber fluff
- ✓ Loop free and consistent stress roving skein
- ✓ Good saturating and wetting characteristics

	Unit	PR 220 1200 908	PR 440 2400 908	PR 440 4800 908	PR 440 9600 908
Filament diameter	μm	16	16	23	32.5
Nominal fineness roving skein	tex	1200	2400	4800	9600
Size base		silane	silane	silane	silane
Bobbin weight	kg	20 +/-1	20 +/-1	20 +/-1	19+/-1





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	Method	PR 220 1200 908	PR 440 2400 908	PR 440 4800 908	PR 440 9600 908
Glowing loss	ISO 1887	0.60	0.60	0.60	0.55
Moisture content	ISO 3344	0.15	0.15	0.15	0.15
Linear density (titer)	ISO 1889	1200	2400	4800	9600
Tensile strength	ISO 3341	350	800	no info	no info

## Packaging and labeling:

The direct roving is produced in the shape of a cylindrical bobbin with inside unwinding. The bobbins are single packed in foil and delivered on pallets.

Bobbin height: 255 mm

Inside/outside diameter: 160 mm/300 mm

Bobbins per pallets: 48 pieces

Pallet: ca. 920 kg net (size: 120 x 88 cm or 126 x 95 cm)

Each packing unit is marked with the following information:

Producer, product name, batch, gross- / net weight, product code, production date, packing code

#### Transport and storage conditions:

The product is transported in closed and moisture protected vehicles. The supply is effected with quality certificate.

These products should be stored in original packaging in dry, roofed and dust-free warehouses. The recommended temperature is between 10°C and 30°C at a relative air moisture between 50% and 75%.

Before working the products should be conditioned in original packing in the working area for at least 24 hours. The pallets may not be stacked if there are no other instructions on the packing.

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