

# 玻璃纤维毡

*Fiberglass Mats*





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# 短切毡用合股无捻粗纱

短切毡用玻璃纤维合股无捻粗纱是粉剂和乳剂短切原丝毡的专用合股无捻粗纱，易于短切且分散性好，与不饱和聚酯树脂、乙烯基树脂相容性好。

## Assembled Rovings for Chopped Strand Mats

Assembled Rovings for Chopped Strand Mats are specially used in powder or emulsion chopped strand mats, They have good choppability and dispersion and are compatible with unsaturated polyester, vinyl ester resins.



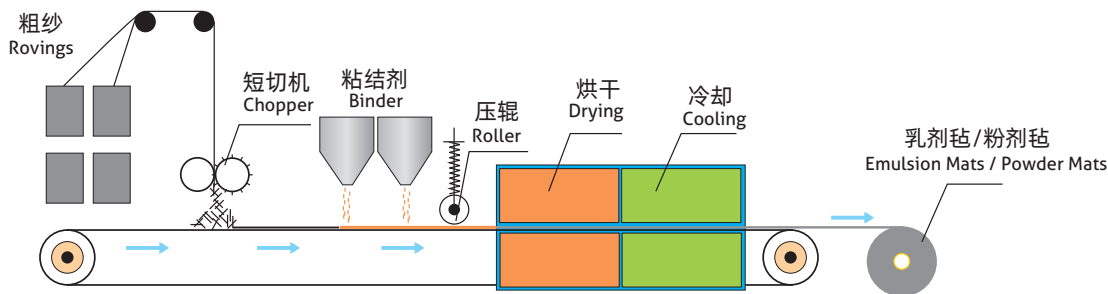
产品牌号 Product Code	牌号详情 Details	典型线密度 Nominal Linear Density (tex)	产品特点 Product Features	适用树脂 Resin Compatibility	典型应用 Typical Applications
512		2400	通用型制毡用纱，短切分散性良好 抗静电性能良好，树脂浸透速度快 <i>General purpose roving, good dispersion after chopping, good static control and fast wet-out in resins</i>	不饱和聚酯树脂 乙烯基树脂 <i>UP, VE</i>	常规短切毡 <i>General chopped strand mats</i>
514		2400	低静电，短切分散性好，制品表面均匀性好 <i>Low static, good dispersion after chopping and good homogeneity of parts surface</i>	不饱和聚酯树脂 乙烯基树脂 <i>UP, VE</i>	汽车内饰毡 <i>Mats for auto-parts</i>
516S		2400	树脂浸透性好，分散性好，抗静电性好， 切割性好，适用于柔软的短切原丝毡 <i>Good resin permeability and dispersion, good anti-static property and choppability, suitable for soft chopped strand mat</i>	不饱和聚酯树脂 乙烯基树脂 <i>UP, VE</i>	汽车顶棚毡 复合材料贴面毡 <i>Automotive headliner mats and facer mats</i>
520		2400	低静电，分散性好 <i>Low static, fast wet-out</i>	不饱和聚酯树脂 乙烯基树脂 <i>UP, VE</i>	缝编织物 <i>Stitched fabrics</i>
520S		2400	树脂浸透性好，分散性好，抗静电性好， 制品质地柔软，模具贴合性好 <i>Good resin permeability and dispersion, good anti-static property, flexible parts, good contact to mold surfaces</i>	不饱和聚酯树脂 乙烯基树脂 <i>UP, VE</i>	缝编织物 <i>Stitched fabrics</i>



## 短切毡工艺 Chopped Strand Mats Production Process

将玻璃纤维纱短切成一定长度，随机沉降在输送带上，然后用乳剂或粉剂将这些短切纤维粘结在一起，经过烘干、冷却和卷绕，形成乳剂毡、粉剂毡。或用有机纤维将这些短切纤维缝编在一起，经过分切和卷绕，形成缝编毡。

Assembled rovings are chopped to a specified length, and then fall onto a conveyor randomly. The chopped strands are bonded together by either an emulsion binder or a powder binder. After drying, cooling and winding, a emulsion mat or powder mat is formed. Or the chopped fibers are stitched together by using organic fibers, and finally cut and wound to form a stitched mat.




### 乳剂毡 Emulsion Mats

无碱玻璃纤维乳剂短切原丝毡是由玻璃纤维原丝经短切后，随机无定向均匀平铺，然后用乳剂粘结剂粘合在一起而制成的片状毡片。可使用于增强UP和VE等。幅宽范围200mm~3120mm，特殊规格可根据客户要求生产。

*Emulsion Chopped Strand Mats are made of randomly distributed chopped strands held together by an emulsion binder. They are compatible with UP and VE resins. The roll width ranges from 200mm to 3,120mm. Special requirements may be available upon request.*



产品牌号 Product Code	产品详情 Details	单位面积克重 Area Weight (g/m <sup>2</sup> )	典型幅宽 Typical Width (mm)	适用树脂 Resin Compatibility	产品特点 Product Features
E01		225, 300, 450 600, 900	1040, 1270	聚酯树脂 乙烯基树脂 UP, VE	拉伸强度高，适用于生产面积较大的产品，操作时无飞扬，树脂浸穿性好浸透快，气泡易排除，制品机械强度高，耐酸腐蚀性优异 <i>High tensile strength, allowing for use in hand lay-up process to produce large-area parts, no airborne fiber when operating, good wet-through and fast wet-out in resins, rapid air lease, high mechanical strength, superior acid</i>
E10		225, 300, 450 600, 900	1040, 1270	聚酯树脂 乙烯基树脂 UP, VE	辊压排泡性非常好，树脂含量低 <i>Rapid air lease reducing rolling out times, low resin consumption</i>
E20		225, 300, 450 600, 900	1040, 1270	聚酯树脂 乙烯基树脂 UP, VE	覆模性好，树脂浸穿性好浸透快，气泡易排除，辊压次数少，树脂消耗少，制品机械强度高，耐酸腐蚀性优异 <i>Good moldability, good wet-through and fast wet-out in resins, rapid air lease reducing rolling out times and increasing productivity, low resin consumption, high mechanical strength of composite products, superior acid corrosion resistance</i>
E30		100, 130, 150 180, 200	1040, 1270	聚酯树脂 乙烯基树脂 UP, VE	低单位面积质量，抗拉强度高，毡面完整性好，原丝分布均匀 <i>Low area weight, high tensile strength, good mat integrity, uniform distribution of chopped strands</i>



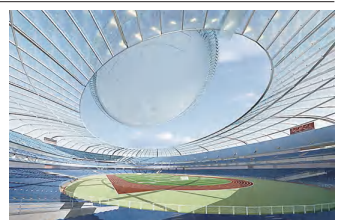


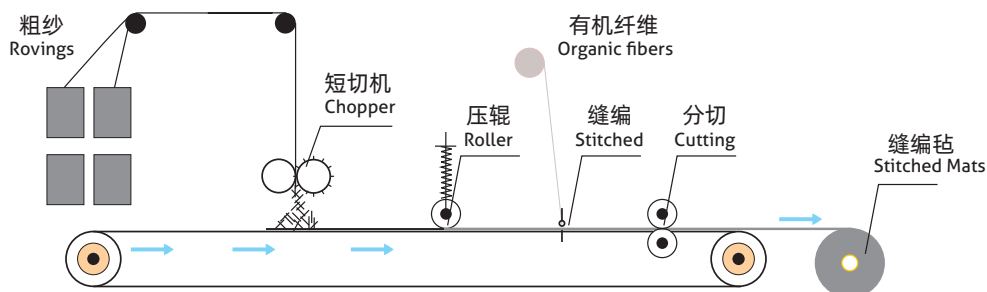
## 粉剂毡 Powder Mats

无碱玻璃纤维粉剂短切原丝毡是由玻璃纤维原丝经短切后，随机无定向均匀平铺，然后用粉剂粘结剂粘结在一起而制成的片状毡片。可适用于增强UP、VE、EP和PF等。产品幅宽范围200mm~3120mm，可根据客户的使用要求和习惯，提供不同浸透和分解时间要求的产品。

*Powder Chopped Strand Mats are made of randomly distributed chopped strands held together by a powder binder. They are compatible with UP, VE, EP and PF resins. The roll width ranges from 200mm to 3,120mm. Additional demands on wet-out and decomposition time can be available upon request.*

产品牌号 Product Code	产品详情 Details	单位面积克重 Area Weight (g/m <sup>2</sup> )	典型幅宽 Typical Width (mm)	适用树脂 Resin Compatibility	产品特点 Product Features
P02		225, 300, 450 600, 900	1040, 1270	聚酯树脂 乙烯基树脂 环氧树脂 UP, VE, EP	拉伸强度高，适用于手糊工艺生产面积较大的制品，树脂浸透性好，浸透速度快，气泡易排除，制品机械强度高，耐酸腐蚀性能优异 <i>High tensile strength, suitable for use in hand lay-up process to produce large-area parts, good wet-through and fast wet-out in resins, rapid air release, high mechanical strength</i>
P02S		225, 300, 450 600, 900	1040, 1270	聚酯树脂 乙烯基树脂 环氧树脂 UP, VE, EP	高表面质量短切毡，表面均匀性好，纱线分布均匀，产品具有较高的强力，可应用于印制电路母板等表面要求较高的复合材料 <i>Excellent surface uniformity with even yarn distribution, exhibiting high strength, suitable for producing composite materials where high surface quality is required such as circuit boards</i>
P04		225, 300, 450 600, 900	1040, 1270	聚酯树脂 乙烯基树脂 环氧树脂 UP, VE, EP	苯乙烯中分解速度较快，树脂浸透性好，浸透速度快，短切毡拉伸强度高，适用于生产面积较大的制品，制品机械强度高 <i>Fast breakdown in styrene, good wet-through and fast wet-out in resins, high tensile strength of mats, suitable for producing large-area parts, good mechanical properties</i>
P10		80, 100, 135 150, 225	1040, 1270	聚酯树脂 乙烯基树脂 环氧树脂 UP, VE, EP	超低克重粉剂毡 拉伸强度高，玻璃纤维分布均匀，产品表面光洁无掉纱 <i>Ultra low weight powder chopped strand mats, high tensile strength, uniform distribution of chopped strands, smooth surface, good conformability of strands</i>
P20		225, 300, 450 600, 900	1040, 1270	聚酯树脂 乙烯基树脂 环氧树脂 UP, VE, EP	毡质柔软，覆模性好，手工撕裂方便，树脂浸透性好浸透快，气泡易排除，辊压次数少，树脂消耗少，制品机械强度高，耐酸腐蚀性能优异 <i>Soft mat, ease of manual tearing apart, good conformability, good wet-through and fast wet-out in resins, rapid air release reducing rolling out times and increasing productivity, low resin consumption, high mechanical strength of composite products, superior acid corrosion resistance</i>
P30		225, 300, 450 600, 900	1040, 1270	聚酯树脂 乙烯基树脂 环氧树脂 UP, VE, EP	浸透速度快 适用于生产透明性要求高的板材 <i>Fast wet-out, suitable for use in high translucent panels</i>

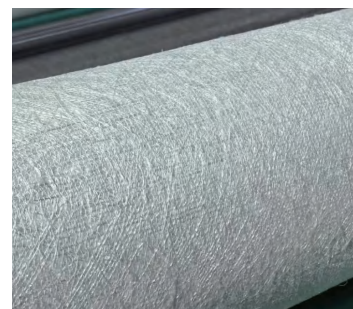




## 缝编毡 *Stitched Mats*

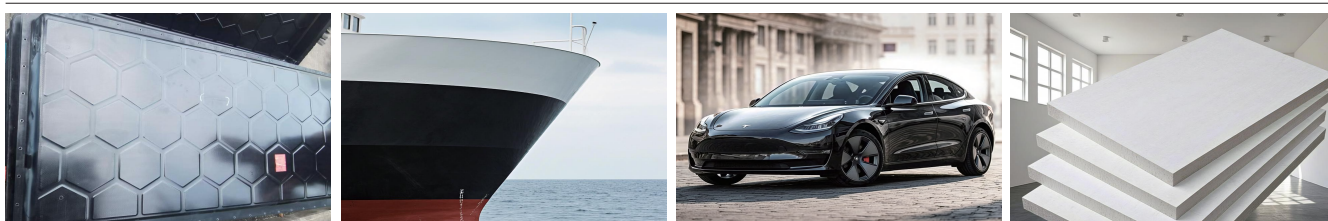
玻璃纤维缝编毡,是由合股无捻粗纱作为基层材料,经短切成一定的长度后,无定向均匀平铺,用有机纤维缝编而成的毡片状玻璃纤维制品。可广泛应用于拉挤、真空成型、手糊等各种工艺。

*Glass fiber stitched mat is a sheet-like product made from chopped E-glass strands of specific length, where the strands are uniformly spread out in a non-directional manner and stitched together with organic fibers. The stitched mat is widely used in various processes such as pultrusion, vacuum forming, hand lay-up, and others.*



- 均匀性好, 湿拉强度高。
- Good uniformity and high wet tensile strength.
- 制品力学性能各向同性。
- Isotropic mechanical properties of the parts.
- 表面孔隙多, 浸透好。
- Numerous surface pores enabling excellent impregnation.
- 不易产生位移变形, 能保持力学性能。
- Resistance to displacement and deformation, maintaining consistent mechanical properties.

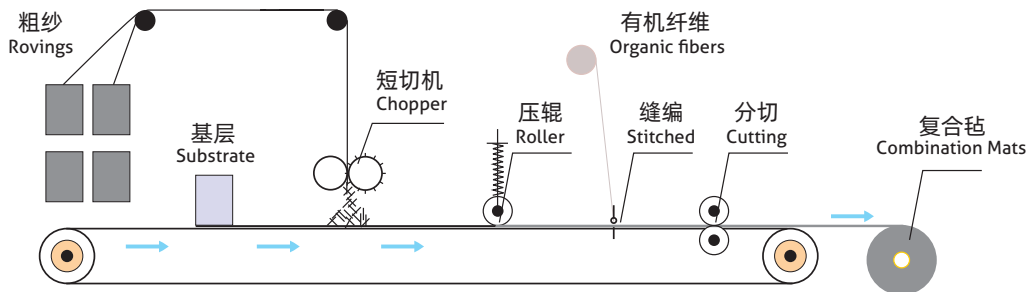
典型规格 Typical spec.	单位面积克重 Area Weight (g/m <sup>2</sup> )	克重偏差 Weight Variation (%)	典型幅宽 Typical Width (mm)	含水率 Moisture Content (%)	拉伸断裂强力 Tensile Breaking Force (N)
EMK300	300	± 10	1040、1250、1270、1600	≤ 0.10	≥ 200
EMK380	380	± 8	1040、1250、1270、1600	≤ 0.10	≥ 250
EMK450	450	± 8	1040、1250、1270、1600	≤ 0.10	≥ 250
EMK600	600	± 8	1040、1250、1270、1600	≤ 0.10	≥ 300



## 复合毡工艺 *Combination Mats Production Process*

将玻璃纤维纱短切成一定长度，随机沉降在输送带上，加以方格布、多轴向布或表面毡等基层，然后用有机纤维将这些短切纤维缝编在一起，经过分切和卷绕，形成复合毡。

Glass fiber rovings are chopped to a specified length, and then settle on a conveyor randomly, and be added to a base material such as a woven roving, multiaxial fabric or surfacing mat. The chopped fibers are then stitched together by using organic fibers, and finally cut and wound to form a combination mat.

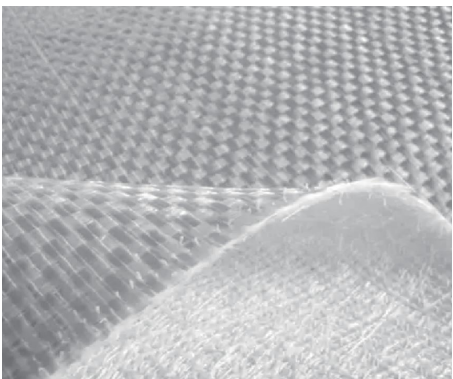


### 方格布缝编复合毡

方格布缝编复合毡是由玻纤方格布加上一层玻纤短切原丝，经有机纤维缝编而成的复合织物。克重 $600\text{g/m}^2 \sim 1250\text{g/m}^2$ ,幅宽 $50\text{mm} \sim 2600\text{mm}$ 。产品适合于造船体、管道修复等。。

#### *Woven Roving Stitched Combination Mats*

*This mat is made from glass fiber woven roving combined with a layer of chopped strand, then to be knitted with organic fibers. It has a weight range from  $600\text{ g/m}^2$  to  $1,250\text{ g/m}^2$  and a width spanning  $50\text{ mm}$  to  $2,600\text{ mm}$ . The mat can be used to make hulls and repair pipeline.*



- 经纬纱平行排列呈扁平状，张力均匀。
- 纤维排列密度大，不易变形，易于使用操作。
- 树脂中浸透快且完全，提高生产效率。
- The warp and weft yarns are arranged parallelly in a flat shape with uniform tension.
- The fibers are densely arranged, making it resistant to deformation and easy to handle and operate.
- Fast and full wet-out in resin, enhancing production efficiency.

典型规格 Typical spec.	单位面积克重 Area Weight (g/m <sup>2</sup> )	方格布克重 Woven Roving Weight (g/m <sup>2</sup> )	短切层克重 Chopped Strand Weight (g/m <sup>2</sup> )	含水率 Moisture Content (%)	针密度 Knit Density
EMK300/EWR400	713	402	300	≤ 0.10	3.5
EMK300/EWR600	911	600	300	≤ 0.10	3.5
EMK300/EWR800	1127	816	300	≤ 0.10	3.5
EMK450/EWR600	1061	600	450	≤ 0.10	3.5
EMK450/EWR800	1277	816	450	≤ 0.10	3.5

## 多轴向布缝编复合毡

由经向(0°)和纬向(90°)铺设的玻璃纤维无捻粗纱，加以平铺的玻纤短切层，经有机纤维缝编而成。克重400g/m<sup>2</sup>~900g/m<sup>2</sup>，幅宽50mm~2600mm，可根据不同应用场景进行片材裁切。产品广泛应用于风能、船艇、汽车零部件、管道修复、医疗器械、体育休闲等领域。使用工艺有真空灌注工艺、预浸料工艺、缠绕工艺等，主要用于生产游艇、风电叶片、体育器材等。其适用于环氧树脂、聚酯树脂、乙烯基树脂、聚氨酯。



### Multiaxial Fabric Stitched Combination Mats

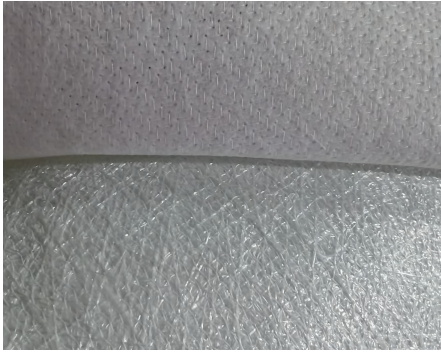
The warp-knitted multiaxial fabric is composed of glass fiber rovings aligned in warp (0°) and weft (90°) orientations, combined with an evenly dispersed layer of chopped strands, then to be knitted with organic fibers. The fabric has a weight range from 400 g/m<sup>2</sup> to 900 g/m<sup>2</sup> and a width spanning 50mm to 2600 mm. It can be cut to meet specific application requirements. The product is widely used in wind energy, boat and ship building, auto parts, pipeline repair, medical equipment, and sport and leisure. It can be used in vacuum infusion, prepreg molding and filament winding processes to make yachts, wind turbine blades, and sports equipment. The fabric is compatible with multiple resins such as epoxy, polyester, vinyl ester and polyurethane.

- 经编结构具有良好的树脂渗透性。
- 织物具有良好的耐冲击性。
- 织物裁剪时平整、不松散，结构稳定。
- Superior resin permeability.
- Excellent impact resistance.
- Having dimensional stability when cut, with minimal fraying while preserving structural integrity.

典型规格 Typical spec.	单位面积克重 Area Weight (g/m <sup>2</sup> )	0°克重 0° Weight (g/m <sup>2</sup> )	+45°克重 +45° Weight (g/m <sup>2</sup> )	90°克重 90° Weight (g/m <sup>2</sup> )	-45°克重 -45° Weight (g/m <sup>2</sup> )	短切层克重 Chopped Strand Weight (g/m <sup>2</sup> )	含水率 Moisture Content (%)	针密度 Knit Density
EMK300/ELT400	708	165	-	243	-	300	≤ 0.10	7
EMK300/ELT600	895	331	-	265	-	300	≤ 0.10	7
EMK300/ELT800	1087	331	-	456	-	300	≤ 0.10	7
EMK450/ELT600	1045	331	-	265	-	450	≤ 0.10	7
EMK450/ELT800	1237	331	-	456	-	450	≤ 0.10	7







## 表面毡缝编复合毡

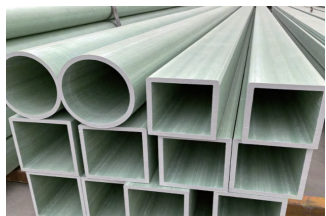
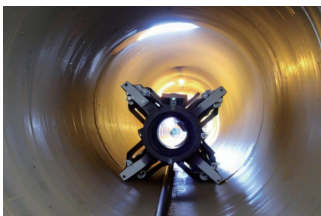
表面毡缝编复合毡,是由有机纤维表面毡作为基层,将玻纤无捻粗纱短切成一定的长度后,无定向均匀平铺于基层材料之上,用有机纤维缝编而成的毡片状玻璃纤维制品。可广泛应用于拉挤、真空成型、手糊等各种工艺。其终端用有管道修复,光伏边框,拉挤型材等。

### Surfacing Mat Stitched Combination Mats

Surfacing mat stitched combination mat is a glass fiber sheet product made from E-glass chopped strands of specific length, where the strands are uniformly spread out, on a base material of an organic fiber surfacing mat, in a non-directional manner and then stitched together with an organic fiber. The stitched combination mat can be used in various processes such as pultrusion, vacuum forming, hand lay-up, and others. The end uses of the product include pipeline repair, photovoltaic frame and extruded profile.

- 均匀性好, 湿拉强度高。
  - 表层吸附树脂能力强, 制品表面性能优异。
  - 工艺顺畅性好, 不易起皱形变。
  - 制件表面具有良好的抗紫外线性能及耐候性。
- Good uniformity and high wet tensile strength.
  - Good absorption of resin, excellent surface performance of the parts.
  - Good processability, offering good resistance to corrugation or deformity.
  - Good UV resistance and weather resistance of the surface of the parts.

典型规格 Typical spec.	单位面积克重 Area Weight (g/m <sup>2</sup> )	克重偏差 Weight Variation (%)	玻纤层克重 Glass Fiber Weight (g/m <sup>2</sup> )	表面毡克重 Surfacing Mat Weight (g/m <sup>2</sup> )	典型幅宽 Typical Width (mm)	拉伸断裂强力 Tensile Breaking Force (N)
EMK200/P40	240	± 10	200	40	1040、1250、1270、1600	≥ 200
EMK300/P40	340	± 10	300	40	1040、1250、1270、1600	≥ 250
EMK350/P40	390	± 8	350	40	1040、1250、1270、1600	≥ 250
EMK450/P40	490	± 8	450	40	1040、1250、1270、1600	≥ 300





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