



Tengzhou Star Smith Metal Products Co. Ltd

A professional factory of steel fiber



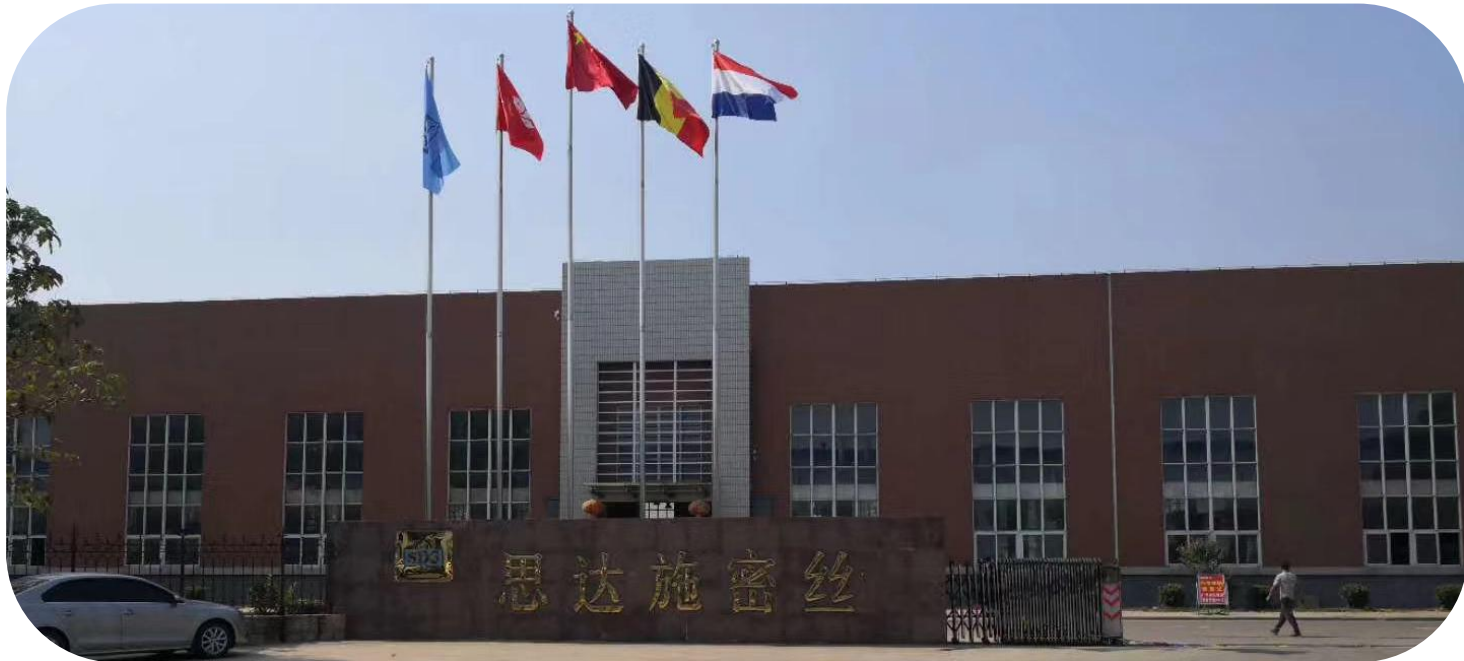
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About company

Tengzhou Star Smith Metal Products Co.,Ltd was founded in 2011 and located in Tengzhou City, Shandong Province Economic Development Zone. It produces glued hooked end steel fiber, loose steel fiber, micro copper coated steel fiber for UHPC&RPC and other steel fiber products; It is the first domestically of glued steel fibers and it has annual production scale of 10000 tons of concrete steel fiber,It also has a full set of production equipment and production technology under independent research and development, and has won several national patents.





About products

- **GLued hooked end steel fiber**

A new type of concrete reinforcement material, which can modify the concrete structure and form a new composite material.



- **Loose hooked end steel fiber**

Low cost, mainly used in road and bridge cushions, and subway prefabricated segments.



- **Copper coated Micro steel fiber**

Aggregate-free concrete reinforcement material can modify the concrete structure to form a new composite material.





About glued hooked end steel fiber

There are two type of steel fiber,one is glued hooked end, the other is loose hooked end.

- Glued hooked end steel fibre is made of high quality cold-drawn wire.
- The glued steel fiber in bulked could make sure it has good dispersibility in concrete.
- Compared with general concrete,steel fibre concrete has a great improvement in tensile strength,flextural strength,abrasion resistance and etc.
- It is widely used in mortar reinforcement,ground,bridge,highway pavement dam,railway sleeper,shotcrete,tunnel,industrial floor and mine.



glued hooked end



loose hooked end



About micro steel fiber

- It is a good and a new kind of construction materials.
- Micro steel fibers are made of copper coated steel wire, which is the most important material of RPC and UHPC.
- UHPC has the features of very high strength, high tenacity, very good durability and volume stability.
- Micro steel fiber is widely used in the building of high way, expressway, RPC cover plates and UHPC construction.



straight micro steel fiber



wave micro steel fiber



Product description

Glued hooked end steel fiber

| Type | Length (mm) | Diameter (mm) | L/D | Tensile strength | Root/kg | Application |
|--------|-------------|---------------|-----|------------------|---------|------------------------|
| SD5535 | 35±2 | 0.55±0.015 | 64 | >1150Mpa | >15000 | mold concrete |
| SD6535 | 35±2 | 0.65±0.015 | 54 | >1150Mpa | >10000 | mold or spray concrete |
| SD7560 | 60±2 | 0.75±0.015 | 80 | >1150Mpa | >4500 | mold concrete |
| SD5535 | 35±2 | 0.55±0.015 | 64 | >1300Mpa | >15000 | spray concrete |
| SD6535 | 35±2 | 0.65±0.015 | 54 | >1300Mpa | >10000 | mold or spray concrete |
| SD7560 | 60±2 | 0.75±0.015 | 80 | >1300Mpa | >4500 | mold concrete |
| SD5535 | 35±2 | 0.55±0.015 | 64 | >1800MPa | >15000 | spray concrete |
| SD6535 | 35±2 | 0.65±0.015 | 54 | >1800MPa | >10000 | mold or spray concrete |
| SD7560 | 60±2 | 0.75±0.015 | 80 | >1800MPa | >4500 | mold concrete |



Product description

Loose hooked end steel fiber

| Type | Length (mm) | Diameter (mm) | L/D | Tensile strength | Root/kg | Application |
|---------|-------------|---------------|-----|------------------|---------|------------------------|
| SD6525S | 25±2 | 0.65±0.015 | 38 | >1150Mpa | >15000 | mold concrete |
| SD6535S | 35±2 | 0.65±0.015 | 55 | >1150Mpa | >10000 | spray concrete |
| SD7530S | 30±2 | 0.75±0.015 | 40 | >1150Mpa | >9500 | spray concrete |
| SD7535S | 35±2 | 0.75±0.015 | 47 | >1150Mpa | >8100 | mold or spray concrete |
| SD9050S | 50±2 | 0.90±0.015 | 55 | >1150Mpa | >3900 | mold concrete |
| SW7535S | 35±2 | 0.75±0.015 | 47 | >1150Mpa | >8000 | mold concrete |



Product description

Micro copper coated steel fiber

| Type | Length (mm) | Diameter (mm) | L/D | Tensile strength | Root/kg | Application |
|--------|-------------|-----------------|-----|------------------|---------|-------------|
| SD1823 | 13±1 | 0.18±0.015 | 72 | >2850Mpa | >380000 | UHPC |
| SD2013 | 13±1 | 0.20±0.015 | 65 | >2850Mpa | >310000 | UHPC |
| SD2213 | 13±1 | 0.22±0.015 | 59 | >2850Mpa | >250000 | UHPC |
| SD1816 | 16±1 | 0.18±0.015 | 89 | >2850Mpa | >310000 | UHPC |
| SD2016 | 16±1 | 0.20±0.015 | 80 | >2850Mpa | >250000 | UHPC |
| SD2216 | 16±1 | 0.22±0.015 | 73 | >2850Mpa | >210000 | UHPC |
| SD1823 | 13±1 | 0.18-0.23±0.015 | 62 | >2850Mpa | >280000 | RPC |
| SD1835 | 13±1 | 0.18-0.35±0.015 | 20 | >2850Mpa | >160000 | RPC |



Advantages of steel fiber

Steel fiber concrete VS Traditional concrete

- a. Steel fiber concrete is a new material while reinforced concrete is a mixture of steel and concrete;
- b. Significantly improve the crack resistance of concrete;
- c. Significantly improve impact resistance;
- d. Improve wear resistance;
- e. Improve durability;
- f. Improve construction efficiency.

Better, cheaper, faster



Project Case

Industrial floors



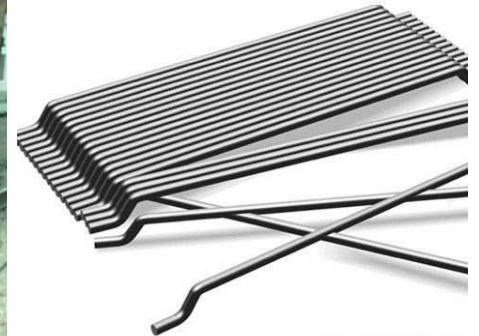
Project place: Tengzhou, Shandong

Project area: 120,000m²

Fiber type: SD7560

Usage: 800tons

- Save construction cost by about 21%;
- The floor thickness is reduced by an average of 15%;
- Extend the service life by 15 years;
- Shorten the construction period by 15%, 5 days





Project Case

Industrial floors



Project place: Tengzhou, Shandong

Project area: 7000m²

Fiber type: SD7560

Usage: 30tons

- Save construction cost by about 16%;
- The floor thickness is reduced by an average of 15%;
- Extend the service life by 15 years;
- Shorten the construction period by 15%, 5 days





Project Case

Industrial floors



Project place: Huzhou, Zhejiang

Project area: 7000m²

Fiber type: SD7560

Usage: 30tons

- Save construction cost by about 16%;
- The floor thickness is reduced by an average of 15%;
- Extend the service life by 15 years;
- Shorten the construction period by 15%, 5 days



Project Case

Industrial floors



Project place : Vietnam

Project area: 167000m²

Fiber type: SD7560

Usage: 150tons

- Save construction cost by about 16%;
- The floor thickness is reduced by an average of 15%;
- Extend the service life by 15 years;
- Shorten the construction period by 15%, 5 days





Project Case

Industrial floors



Project place:

Jinan, Shandong

Project area: 3000m²

Fiber type: SD7560

Usage: 10t

- Save construction cost by about 16%;
- The floor thickness is reduced by an average of 15%;
- Extend the service life by 15 years;
- Shorten the construction period by 15%, 5 days





Project Case

High-speed way



Project place: Inner Mongolia
Zhunxing Heavy-Duty High Speed way.
Fiber type: SD7560
Usage: 9000tons

- Reduce the thickness of concrete road surface by 15%–30%
- No or few longitudinal seams are provided to reduce transverse shrinkage seams;
- Extend the service life of the road surface;
- Has good ductility
- Shorten the construction period, about 30 days





Project Case

Highway and bridge deck pavement



Project place: Yellow River Bridge of
Zhunxing Heavy-duty Expressway

Bridge length: 1670m

Fiber type: SD7560

Usage: 257tons

- Improve the load performance of roads and bridges;
- Reduce the thickness of the concrete bridge deck;
- Greatly reduce the weight of the road and bridge;
- Extend the service life of the bridge deck.





Project Case

Highway and bridge deck pavement



Project place: Heze, Shandong

Road length: 177.77kilo meters

Fiber type: SD7535 loose steel fiber

Usage: 30tons



- Improve the load performance of roads and bridges;
- Reduce the thickness of the concrete bridge deck;
- Greatly reduce the weight of the road and bridge;
- Extend the service life of the bridge deck.



Project Case

Airport Pavement Project



Project place: Huai'an Airport

Project area: 124000m²

Fiber type: SD7560

Usage: 800tons

- The strength of the runway is 13% higher than that of ordinary concrete;
- Improve runway service life;
- Give full play to the fatigue and impact resistance of steel fiber concrete





Project Case

Prefabriited components



1. Good dispersion in concrete
2. Significantly improve the toughness of concrete
3. Significantly increase the pull strength of concrete
4. Provides good impact resistance and fatigue resistance

Project place: RPC Pavement

Project area: Gansu Province

Fiber type: SD1835 micro steel fiber

Usage: 200tons





CONTACT US



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