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Company Profile

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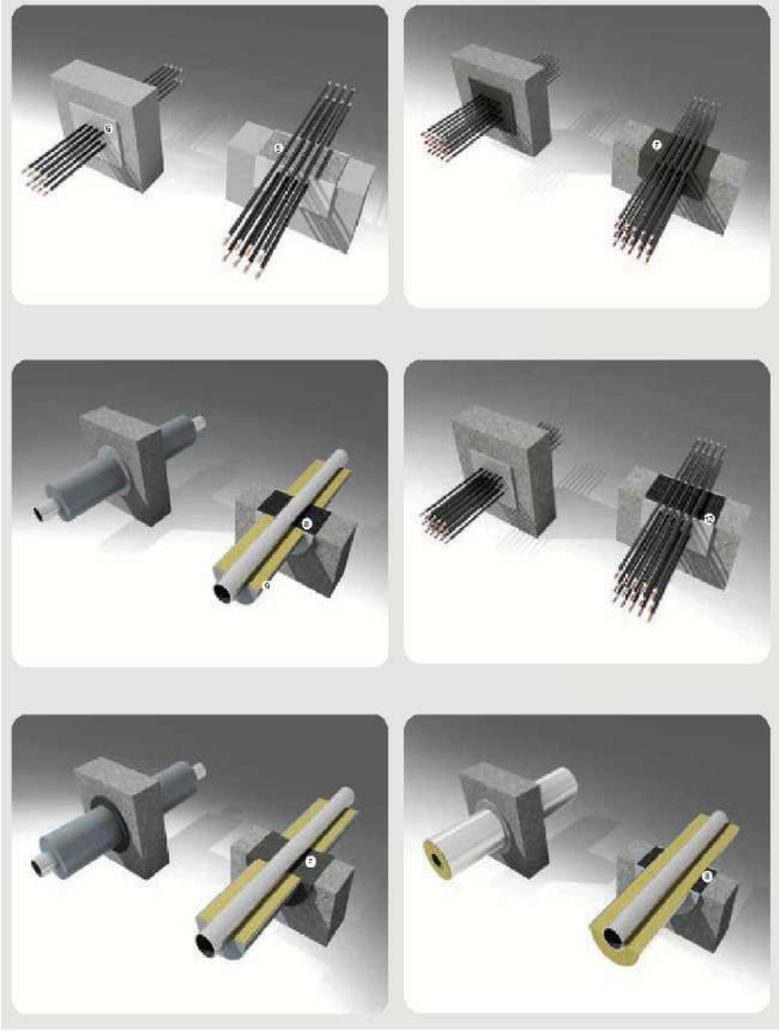


FS-F fireproof sealant(water-based,elasticity)
(DJ-A3-FS-F fireproof sealing glue)

● Product introductions

FS-F Elastic fireproof sealant is a kind of dedicated fireproof sealant, which is characterized by good flexibility and adhesion. This fireproof sealant is applied to do hole sealing on cables, mechanical pipes, ventilation pipes, utilidors, etc. The main purpose is to splice the cracks, which is on fireproof coated board.

● Advantages

Smoke non-toxic; No halogen, sulfur and other toxic ingredients; Long-term performance for more than 40 years; Watertight, smoke airtight; Resistant to radiation; Water-based; No corrosion, safe and environmental protection; Efficient flame retardant; Convenient for construction.

● Installation Instructions

1 Keep the hole clean and dry and keep it away from dust and oil stain;
2 Fill he holes and gaps with backing materials;
3 Coat a certain thickness of FS-F on the backing material;
4 Flat FS-F with tools;
5 Install logo stickers, so it can be identified in later period maintenance.

● Packing Specification

300 mL/piece, 20 pieces/box

FS-F fireproof sealant(water-based,elasticity)
(DJ-A3-FS-F fireproof sealing glue)

● Technology index

Inspection according to GB23864-2009 "fireproof and sealing material"

Serial number	Test items	Technical index
1	Fire resistance	Fire integrity≥3h, Fire insulation≥3h
2	Combustion performance	No lower than HB level
3	Appearance	Rust cream material
4	Apparent density	About $1.4\times10^3 kg/m^3$
5	Corrosivity	≥ 7d, No rust, corrosion phenomenon
6	Water resistance	≥ 3d, No swelling, No crack
7	Alkali resistance	
8	Acid resistance	
9	Humidity resistance	≥ 360h, No crack, No pulverization
10	Resistance to freezing and expansion cycle	≥ 15 No crack, No pulverization
11	Expanding properties	≥ 300%

FS-I fireproof sealant (water-based, intumescent) (DJ-A2-FS-I fireproof sealing glue)

● Product introductions

FS- I fireproof sealant is a kind of flame retardant, intumescent sealant, which is characterized by good flame retardance. When it burns, The volume will expand more than 5 times (no constraint), and can effectively prevent flame and heat from transferring. This kind of sealant is mainly used in the surrounding of cables of some vertical shafts, cabinets, cable penetration and metal penetration, etc.

● Advantages

Smoke non-toxic; No halogen, sulfur and other toxic ingredients; Long-term performance for more than 40 years; Watertight, smoke airtight; Resistant to radiation; Water-based; No corrosion, safe and environmental protection; Efficient flame retardant; Convenient for construction.

● Installation Instructions

1 Keep the hole clean and dry and keep it away from dust and oil stain;
2 Fill the holes and gaps with backing materials;
3 Coat a certain thickness of FS-I on the backing material;
4 Flat FS-I with tools;
5 Install logo stickers, so it can be identified in later period maintenance.

● Packing Specification

300 mL/piece, 20 pieces/box

FS-I fireproof sealant (water-based, intumescent) (DJ-A2-FS-I fireproof sealing glue)

● Technology index

Inspection according to GB23864-2009
"fireproof and sealing material"

Serial number	Test items	Technical index
1	Fire resistance	Fire integrity≥2h, Fire insulation≥2h
2	Combustion performance	No lower than HB level
3	Appearance	Rust cream material
4	Apparent density	About $1.4 \times 10^3 kg/m^3$
5	Corrosivity	≥ 7d, No rust, corrosion phenomenon
6	Water resistance	≥ 3d, No swelling, no crack
7	Alkali resistance	
8	Acid resistance	
9	Humidity resistance	≥ 360h, No crack, No pulverization
10	Resistance to freezing and expansion cycle	≥ 15 No crack, No pulverization
11	Expanding properties	≥ 900%

FP-C fireproof coating of cable (environmentally friendly)

● Product introductions

FP-C fireproof coating of cable is a kind of efficient fire retardant cable coating that it will expand when it burns. The feature is the volume will expand several times while it is burning, and then it will form a compact charring layer and stop cable combustion. This FP-C is widely used in fire retardance of cables.

● Advantages

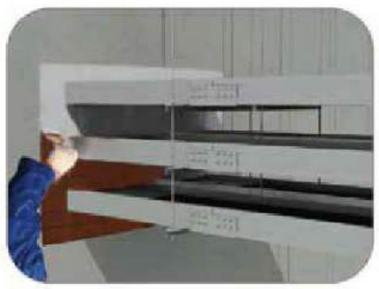
Waterproof, Resistant to cold, Smoke non-toxic; No halogen, sulfur and other toxic ingredients; Long-term performance for more than 40 years; Resistant to radiation; Resistant to detergent, radioactive decontamination performance; Water-based; No corrosion, safe and environmental protection; Efficient flame retardant; volume expanded with fire; convenient for construction.

● Installation Instructions

1 Clean the cable, and keep it dry and non-dust;
2 Fully and symmetrically mix the coating;
3 Coat FP-C according to the necessary length and thickness.

● Packing Specification

10 kg/barrel



FP-C fire fireproof coating of cable (environmentally friendly)

● Technology index

Inspection according toGB28374—2012"Fireproof coating for electric cable"

Serial number	Test items	Technical index
1	State in containers	Well-distributed white thick body
2	Fineness	≤ 90μm
3	Viscosity	≥ 70s
4	Drying time	Surface dry≤5h, Completely Dry≤24h
5	Oil resistance	Soak for 7days, no wrinkling and no falling of the coating
6	Resistant to salt corrosion	Soak for 7days, no wrinkling and no falling of the coating
7	Humidity resistance	Soak for 7days, no foaming and no falling of the coating
8	Resistance of freeze-thaw cycle	After 15 times' cycle, no foaming and no falling of the coating
9	Buckling Resistance	No wrinkling and no falling of the coating
10	Fire resistance	Carbonization height 2.50 m

FP-CF fireproof cable coating (waterborne)

Product introductions

FP-CF is a kind of water based organic fireproof coating which can be used in outdoor; it is widely used in fire retardance of cables.

Advantages

Long-term performance for more than 40 years; Smoke non-toxic; No halogen, sulfur and other toxic ingredients;
Water-based; No corrosion, safe and environmental protection; Efficient flame retardant; Volume expanded with fire; Convenient for construction.

Installation Instructions

1 Clean the cable, and keep it dry and non-dust;
2 Mix the coating fully and symmetrically;
3 Coat FP-CF according to the necessary length and thickness.

Packing Specification

20 kg/barrel

FP-CF fireproof cable coating (waterborne)

Technology index

Inspection according to GB28374—2012

Serial number	Test items	Technical index
1	State in containers	Well-distributed white liquid
2	Fineness	≤ 90μm
3	Viscosity	180s
4	Drying time	Surface dry≤5h, Completely dry≤24h
5	Oil resistance	Soak for 7days,no wrinkling and no falling of the coating
6	Salt water resistance	Soak for 7days, no wrinkling and no falling of the coating
7	Heat resistance	Soak for 7days, no foaming and no falling of the coating
8	Resistance of freeze-thaw cycle	After 15 times' cycle, no foaming and no falling of the coating
9	Buckling Resistance	No wrinkling and no falling of the coating
10	Fire resistance	Carbonization height 2.50m

FB-1 fireproof sealing plank (DC-A2-FB-1 fireproof sealing plank)

Product introductions

FB-1 fireproof sealing plank is a kind of fireproof sealing board that paints fire retardant coating on the surface of non-combustible board. It is mainly applied in sealing the electric cabinet, cable shaft and other large vertical holes.

Advantages

Smoke non-toxic; No halogen, sulfur and other toxic ingredients; Long-term performance for more than 40 years; No corrosion, Safe and environmental protection; Efficient flame retardant; Convenient for construction.

Installation Instructions

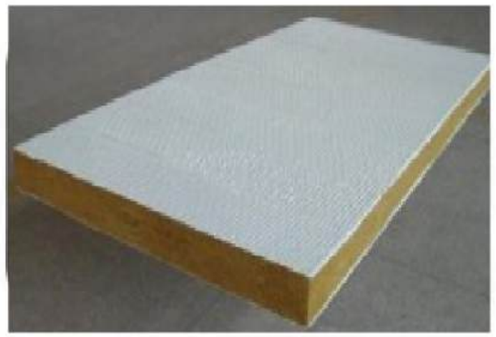
1 Keep the hole clean and the surface dry;
2 Cut the FB-1 fireproof sealing plank into the shape that can match the holes and penetrations with tools;
3 Coat he FS- For FS-I on penetrations surface that is in contact with the sealing plank;
4 Brush the hole circum and coated board surface on every side with FS- F;
5 Pull the well-cut sealing plank into the holes, and keep it in a line with the substrate surface, banding with FS-F;
6 Paint surface of FB-1 with fireproof cable coating.

Notes

If it is a doubling board system, we can use the same step to install the second piece of plank , and splice the two plank with FS- F , and keep them flushed with the back of substrate ;
If any precoated sheet of the clad plate is destroyed, we can use fireproof cable coating to restore it and to recover its thickness.

Common specifications

1200×600×60mm, 1200×600×50mm,1200×600×30mm.



FB-1 fireproof sealing plank(DC-A2-FB-1 fireproof sealing plank)

Technology index

Inspection according to GB23864-2009
"fireproof and sealing material"

Serial number	Test items	Technical index
1	Fire resistance	Fire integrity≥2h, Fire insulation≥2h
2	Combustion performance	No lower than V-0 level
3	Appearance	White plate, smooth
4	Buckling strength	≥ 0.10MPa
5	Water resistance	≥ 3d , No swelling， No Crack
6	Oil resistance	
7	Humidity resistance	≥ 120h ,No crack, No pulverization
8	RFreeze-thaw cycle resistance	≥ 15 No crack, No pulverization

FC-1 inorganic sealing material (DW-A3-FC-1 fireproof plaster)

Product introductions

FC-1 fireproof plaster is a kind of inorganic sealing material that is mainly applied to seal the large and medium-sized penetrated hole. It is mainly applied to the fireproof sealing of cable tray, cable trench and cable tunnel.

Advantages

Smoke non-toxic; No halogen, sulfur and other toxic ingredients; Long-term performance for more than 40 years; Watertight, smoke airtight; Resistant to radiation; It will not shrink when solidification or on fire; High anti-explosion performance; Good insulativity; No corrosion, safe and environmental protection;

Installation Instructions

1 Keep the hole clean;
2 Firstly, put FC-1 dry powder in a container, and then add 0.3 ~ 0.5 portion of water in it, and mix it adequately and evenly till it become mortar shape;
3 Form erecting and fill plaster in sealing parts;
4 Install logo stickers,, so it can be identified in later period maintenance.

Packing specifications

20kg/bag

FC-1 inorganic sealing material (DW-A3-FC-1 fireproof plaster)

Technology index

Inspection according to GB23864-2009
"fireproof and sealing material"

Serial number	Test items	Technical index
1	Fire resistance	Fire integrity≥3h, Fire insulation≥3h
2	Appearance	Gray solid powder, without aggregation
3	Apparent density	About $0.8 \times 10^3 kg/m^3$
4	Initial setting time	10min ≤ t ≤ 45min
5	Compression strength	0.8Mpa ≤ R ≤ 6.5MPa
6	Corrosivity	≥ 7d,No rust, corrosion phenomenon
7	Water resistance	≥ 3d， No swelling, No Crack
8	Oil resistance	
9	Humidity resistance	≥ 120h,No crack, No pulverization
10	Freeze-thaw cycle resistance	≥ 15 No crack, no pulverization

FS-Z fireproof module(DM-A3-FS-Z fireproof module)

Product introductions

FS-Z fireproof module is made of inorganic polymer materials. It is widely used in the fireproof sealing of electric power, communicational wire, cable, electric control cabinet chasis, holes penetrated through the wall, cable horizontal wells, vertical wells and the cable trench firewall etc. When stacking this modules, it will utilize its own special structure to lock themselves together and is not easy to collapse, and it also have the characteristics of light weight.

Advantages

Smoke non-toxic; No halogen, sulfur and other toxic ingredients; Long-term performance for more than 40 years; Environmental protection; High inflation in the fire; High compression strength; Good thermal insulation ability; Moisture proof ;Corrosion resistance; Firm stacking ;
Good damping performance.

Common specifications

200×100×50mm,
240×120×60mm.

FS-Z fireproof module(DM-A3-FS-Z fireproof module)

Technology index

Inspection according to GB23864-2009
"fireproof and sealing material"

Serial number	Test items	Technical index
1	Fire resistance	Fire integrity≥3h, Fire insulation≥3h
2	Combustion performance	No lower than V-0 level
3	Appearance	Golden brown solid, smooth
4	Apparent density	About $0.75 \times 10^3 kg/m^3$
5	Compression strength	R ≥ 0.10MPa
6	Corrosivity	≥ 7d, No rust, corrosion phenomenon
7	Water resistance	≥ 3d, No swelling, no crack
8	Oil resistance	
9	Humidity resistance	≥ 120h, No crack, no pulverization
10	Freeze-thaw cycle resistance	≥ 15 No crack, no pulverization
11	Expansion properties	≥ 120%

FZ-1 fireproof module (fireproof foaming brick)

● Product introductions

FZ-1 fireproof foaming brick is made of silicone type materials and it is mainly used for the temporary or permanent fireproof sealing of the cable or cable tray perforation. It is often installed In the clean and no fiber room or the place , such as electronic factory building, the calculation control center, hospitals and laboratories etc., it can also be used for larger hole's fireproof sealing.

● Advantages

Good Elasticity; Resistant to radiation; No halogen, sulfur and other toxic ingredients;Watertight, smoke airtight; Smoke non-toxic; Long-term performance for more than 40 years; Convenient for construction.

● Common specifications

200×100×50mm.

FZ-1 fireproof module （fireproof foaming brick）

● Technology index

Inspection according to GB23864-2009 "fireproof and sealing material"

Serial number	Test items	Technical index
1	Fire resistance	Fire integrity≥2h, Fire insulation≥2h
2	Appearance	Gray elastic foamy solid
3	Density	0.5 ± 0.1g/cm^3
4	Compression strength	R ≥ 0.10MPa
5	Corrosivity	≥ 7d,No rust, corrosion phenomenon
6	Water resistance	≥ 3d， No swelling, no crack
7	Oil resistance	
8	Humidity resistance	≥ 120h,No crack, no pulverization
9	Freeze-thaw cycle resistance	≥ 15 No crack, no pulverization
10	Expansion properties	≥ 120%

FB-2 New fireproof plate (fireproof sealing plank)

Product introductions

FB-2 New fireproof plate is a kind of double-sided metal plate that the middle layer is an organic/inorganic intumescent fire resistant layer with the silicone as a binder. By optimizing the formulation,combined with ceramization technology and fire safety technology, which makes product not only has excellent fire resistance performance, but also ensure that the system will be in a good stability after sealing when gets on fire, it also has features like: beautiful construction process, water impact resistance, high expansion, etc.

Advantages

Convenient for construction;Suitable for large and medium-sized hole sealing;More than 2 hours fire resistance period;Thermal expansion performance, smoke airtight;Stable system structure after expansion, water impact resistance;Good appearance after construction, Remove the protective shield to avoid pollution;Easy expansion;good bearing performance.

Installation instructions

1 keep the hole clean ;
2 measure the hole size;
3 Cut the fireproof plate into two halves, and cut according to the shape of penetration object;
4 grind the sharp edges;
5 fix the fireproof plate firmly;
6 Use FS-I(Intumescent fireproof sealan)to fill the cable cracks and the cracks around the fireproof plate.

FB-2 fireproof sealing plank(new type fireproof plate)
DC-A2-FB-2 fireproof sealing plank

Storage conditions

Dry environment, avoid direct&long-team sunlight.

Regular specifications:

800×600×（10±1）mm

Technology index

Inspection according to GB23864-2009"fireproof and sealing material"

Serial number	Test items	Technical index
1	fire resistance	Fire integrity≥2h,Fire insulation≥2h
2	Combustion performance	No lower than V-0 level
3	appearance	Plate,smooth surface.
4	Buckling strength	≥ 0.10MPa
5	Water resistance	≥ 3d，No swelling,No crack
6	Oil resistance	
7	Humidity resistance	≥ 120h ,No crack,No pulverization
8	Freeze-thaw cycle resistance	≥ 15 No crack,No pulverization

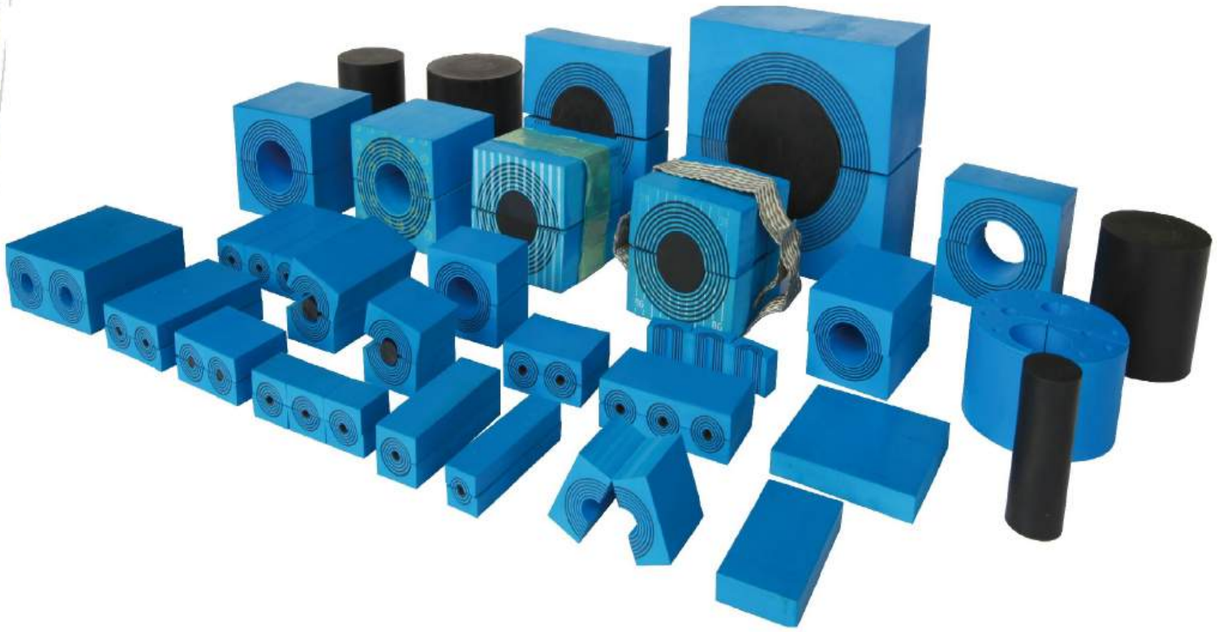
HL-MCT Cable Transit Device

● Product introductions

Cable Transit Device (MCT) is a kind of the cable penetration sealing form,mainly used to meet the requirements of airtight, fire prevention, waterproof ,etc. At the same time MCT can ensure the integrity of penetrated objects. MCT consisting of the transit frame, cable transit module, compression kit and anchor plate. The cable transit module is composed of the fire-resistant, gas- and watertight basic module, adapter module and solid module.

● Product features

Fire resistant;
Oppose violence;
Gastight and watertight thanks to 7 sealing lips;
Only 7 different modules are needed to cover all cable diameters from 3 to 99 mm;
Filler modules for future cable installations;
Big saving thanks to modules interlinking, especially where cables run vertically through deck penetrations;
Wedge seals with double bolts for quick installation;
Special EMC module can be used to Anti-EMI.



HL-MCT Cable Transit Device

Serial number	Test items	Size(length × wide × deep)/mm	Cable diameter range/mm
1	HMC–15	15x15x60	4.5–10.5
2	HMC–20	20x20x60	0;5–13
3	HMC–30	30x30x60	0;13–21
4	HMC–40	40x40x60	0;22–32
5	HMC–60	60x60x60	0;32–50
6	HMC–90	90x90x60	0;50–78
7	HMC–120	120x120x60	0;79–99

NCB(FP-B) *indoor ultra-thin steel structure fireproof coating (R & D cooperation with Ukraine)*

● *Product introductions*

FP-B is the research achievements of our cooperation with Admiral Makarov National University of Shipbuilding. It's an indoor ultra-thin steel structure fireproof coating that made of silicone resin and curing agent, it does not contain organic solvents, irritant smell.It's non-toxic and environmentally friendly, and mainly used for fire protection of industrial and civil buildings and other structures that can easily destroyed by fire , especially for steel structure of stadiums and factory workshop. Not only can it effectively improve the fire resistance of steel, but also has a good decoration effect. It is applied to brush cable trays and instrument tubes etc,.

● *Advantages:*

No organic solvents, benzene and asbestos material, odorless, non-toxic and environmentally friendly; when the film become dry, the coating resists to knock, vibration.

● *Installation instructions*

1 Before constructing, the surface of steel structure should be rust removal and it should be brushed with the rust-resisting paint which is compatible with fireproof coating (usually using red lead and Epoxy zinc-rich),The fireproof coating cannot be used until the rust-resisting paint dries up;

2 For the steel structure that is brushed with fireproof paint, the fireproof coating can not be used until the surface of the structure is cleaned up;

3 When the coating is abroach,it should be fully mixed and it can not be used until it fully mixed with curing agent according to the proportion 5:1;

4 Coating construction usually takes through the way of brushing, roll-brushingand spraying, Anyway, in order to improve the adhesion force between the coating and steel base material, the thickness of first-time brushing should be 0.1-0.15mm,so that it can prevent falling off and cracking in the process of later brushing. From the second time, the thickness can be at 0.2-0.3mm;

5 It should keep 6-18hours' interval, and the environment condition temperature:3℃ -35℃ ,and the relative humidity ≤ 85%,The workplace should be ventilative, and the speed of wind should not be quicker than 5m/s,It is not suitable for the construction when the following phenomenon happened such as relative humidity ≥ 85%, swelter, low air pressure, wetness of steel structure surface, and moisture condensation.

● *Notes*

1 Avoid light, sun, rain, and mechanical damage during the period of construction and coating maintenance;
2 Pay more attention to the sealing when it is abroach, and protect it from volatilization, drying up, and water invasion;
3 Constructors should wear work clothes, protective masks, and safety devices when they are working.

● *Packaging, storage and transportation*

Iron barrel packing, 20kg net weight per barrel, stored in a cool, ventilated and dry place. While in transportation, products should avoid the rain, solar exposure and sealing should be paid specially attention.

● *Technical index*

Inspection according to GB14907-2002"steel structure fireproof-coating"

Serial number	Test items	Technical index
1	fire resistance	≥1.3h (coating thickness 2.00±0.20mm)
2	State in containers	After mixing, it is a well-distributed state, with out aggregation
3	Surface drying time	⩽ 8h
4	Initial drying resistance	No flows
5	Bond strength	⩾ 0.2MPa
6	Water resistance	⩾ 24h , Coating has no aliquation, no bubbles and no falling off
7	Resistance of freeze-thaw cycle	≥15times coating has no crack, no falling off and no bubbles

NH(FP-H)Indoor thick fireproof coating for steel structure

● Product introductions

NH(FP-H) indoor thick fireproof coating for steel structure is fireproof insulating coating whose main constituent is inorganic material. This coating has strong bonding strength, strong anti-corrosion properties, light coating layer, and the fire-resistant limit up to 3 hours. It is widely applied in steel structure fire protection for large steel structure building, petrochemical industry, commercial building, electric power, workshop and warehouse to improve fire-resistant duration, which can satisfy the fire protection requirements.
NH(FP-H) is water-based thick fireproof coating for steel structure that provides fire protection for steel structure load-bearing component. After spraying and painting this coating on the surface of steel structure, it will form insulating layer relying on the coating's own incombustibility and low thermal conductivity once gets on fire, and reduce the direct damage to the load-bearing component.

● Advantages

Not contain asbestos and organic solvents, no excitant odour, non-toxic and environmentally friendly; Light coating, good bonding performance, high strength, and superior anti-corrosion performance; Excellent fire and weather resistance.

NH(FP-H)Indoor thick fireproof coating for steel structure

● Technology index

Inspection according to GB 14907-2002<fireproof coating for steel structure>

Serial number	Test items	Technical index
1	fire resistance	≥3h (coating thickness 25±2mm)
2	State in containers	After mixing, it will be well-distributed state, without aggregation
3	Surface drying time	≤ 24h
4	initial dry cracking resistance	No crack
5	Bond strength	≥ 0.04Mpa
6	Compressive strength	≥ 0.03MPa
7	Dry density	≤ 500kg/m^3
8	Water resistance	≥24h, Coating has no aliquation, no bubbles and no falling off.
9	Resistance of coldness and heat cycle	≥15 times, Coating has no crack, no falling off and no bubbles.

NCB (FP-ST) *indoor ultra-thin steel structure fireproof coating*

● Product introductions

FP-ST ultra-thin steel structure fireproof coating is mainly used for the fire protection of some large objects that will be destructed by the fire, such as industrial and civil building's indoor steel structure. It is especially applicable to protect bare steel structure of the venues and industrial factories. It can effectively improve the refractory ability of the steel structure, and have good fire-resistance adornment effect at the same time. It is suitable for coating of cable tray and instrument pipe, etc.

● Advantages

No benzene class and asbestos materials; After high-temperature foaming, this product will not produces non-toxic gas, which is harmless to human beings;
When the film dries, the coating will be tasteless, non-toxic, hard, resistant to knock, and vibration resistance.

● Installation Instructions

1 Before constructing, the surface of steel structure should be derusted and it should be brushed with the rust-resisting paint which is compatible with fireproof coating (usually using red lead and the Epoxy zinc-rich), The fireproof coating cannot be used until the rust-resisting paint dries up;
2 For the steel structure that is brushed the fireproof paint, the fireproof coating cannot be used until the surface of the structure is cleaned up;
3 When the coating is abroach, it should be fully mixed before shelling-out;
4 Coating construction usually takes through the way of brushing, roll-brushing, and spraying. Anyway, in order to improve the adhesion force between the coating and steel base material, the thickness of first-time brushing should be 0.1-0.15mm, so that it can prevent falling off and cracking in the process of later brushing, From the second time, the thickness can be at 0.2-.03mm;
5 It should keep 6 to 18 hours' interval, and the environment condition temperature: 3℃ -35℃ , and the relative humidity ≤85%, The workplace should be ventilative, and the speed of wind should not be quicker than 5m/s, It should not begin the construction when the following phenomenon happened such as relative humidity ≥85%, swelter, low air pressure, wetness of steel structure surface, and moisture condensation.

● Notes

1 This product belongs to the kind of waterborne coating, so flame is strictly prohibited when constructed, It is not allowed to do the fire or welding work until the coating dries up totally;
2 It will volatilize when temperature is above 38℃ , If the thickness of coating is added, it can be slightly diluted with water according to the temperature and humidity
3 It should avoid light, sun, rain and mechanical damage during the period of construction and coating maintenance;
4 Pay more attention to the sealing when it is abroach, it should avoid volatilization, drying up, and water invasion;
5 Constructors should wear work clothes, protective masks, and safety devices when they are working.

● Packaging, storage and transportation

Iron barrel packing, 20 kg net weight per barrel , stored in a cool, ventilated and dry place. While in transportation, products should avoid the rain, the solar exposure and sealing should be pay especially attention.

NCB (FP-ST) *indoor ultra-thin steel structure fireproof coating*

● Technology index

Inspection according to
GB14907-2002 "steel structure fireproof-coating"

Serial number	Test items	Technical index
1	Fire resistance	≥2.0h ｛ coating thickness 2.00±0.20mm ｝
2	State in containers	After mixing， it is a well-distributed state, without aggregation
3	Surface drying time	≤ 8h
4	Initial drying resistance	No flaws
5	Bond strength	≥ 0.2MPa
6	Water resistance	≥24h Coating has no aliquation, no bubbles and no falling off
7	Resistance of freeze-thaw cycle	≥15times Coating has no crack, no falling off and no bubbles

FY-GW thermostable anticorrosive coating

Product introductions

FY-GW thermostabce anticorrosive coating is made of special epoxy-ester anticorrosive undercoat and topcoat specilly used in nuclear power station. This product not only has good anti-radiation property, but has good anticorrosive performance, so it is the ideal protective coating of the steel structure. It is used as protective and anticorrosive coating for steel and cement structure, pipe and steel equipment of nuclear power plants .

Advantages

The painting film has good features such as adhesion, abrasion resistance, and impact resistance;
It has also good features of antirust and durability;
Gas non-toxic; Excluding halogen, sulfur; Long-term performance for more than 40-years;
Resistant to irradiation; DBA (LOCA) resistance; Radioactive decontamination performance;
No corrosion, environmental protection and safe; Convenient for construction.

Installation Instructions

1 Coating should be conducted after the paint is fully and symmetrically mixed, and oddments can't be poured back to the original barrels. The next coating should not begin until the proceeding one is completely dried;
2 Coating times are different according to the different areas;
3 The construction site should be ventilated; coating should be put in a cool, ventilated and dry place.

Packing Specifications

20 kg/barrel

FY-GW thermostability anticorrosive coating

Serial number	Test items		Technical index
1	Solids content		>90%
2	Drying time		Surface≤6h, Inside≤24h
3	adhesion		≥ 3.0MPa
4	(750g/300r) Abrasive resistance(750g/300r, weightlessness)		≤ 0.04g
5	(100h) Resistance to manpower	Appearance	Non-foaming, tack-free, no cracks
		Adhesion	≥ 1.5MPa
6	Resistance to gas (250h)	Sparkling level	0 级
		Adhesion	≥ 1.5MPa
7	Heat resistance experiment (120℃ ,200h)	Appearance	Non-foaming, tack-free, no cracks
		Adhesion	≥ 1.5MPa

FP-T Fireproof Coating for Tunnel

● Product introductions

FP-T Fireproof Coating for Tunnel is a professional fireproof coating used for highway, railway, urban subway, and the tunnel across the road. The function is fire-protection on tunnel liner, and when the fire happened, it can make the concrete structure of tunnel not be damaged in the fire , thus, it can reduce the maintenance costs and the repair-time of construction. This coating will not obtain poisonous gas when it is burning, so it is convenient for the putout the fire and repairing in the tunnel. This coating can be used not only to paint by hands but also mechanized spraying.

● Advantages

High-strength of bonding; Good weather ability; Gas non-toxic; Excluding halogen, sulfur; No corrosion, environmental protection and safe; High-efficiently antifoaming; Convenient for installation.

● Installation Instructions

1 Before constructing, the surface of concrete should be dedusted and decontaminated;
2 Coating as (75-120):100 -(water : coating), it should be used after well-mixed, and it should be used up in 30 minutes. Because of different tools and weather conditions, it can be mixed by adding water according to the conditions;
3 Construction method: this work should be done above the temperature of 5 ℃ , The thickness should be 5mm when it is the first time spraying, after that, the thickness should be about 8mm by spraying each time. The interval should be no less than 24h;
4 Surface decoration: if it takes the way of spraying, the surface of coating is well-distributed with sound absorption, it should not be floated. If it has to be floated, the process should be done at last. If surface decorative requirements are needed, the surface of fireproof coating can be brushed with other paintings.

● Packing and transportation

1 This product is packed by textile bags lining with plastic bags, 25kg/bag;
2 This product should be stored in a cool and dry room, and the effective period is half a year;
3 This product is non-inflammable, non-explosible, non-toxic, and non-corrosive. Pay attention to seal during the process of storage and transportation, because the material will be useless if it is affected with damp.

FP-T Fireproof Coating for Tunnel

● Technology index

according to GB28375-2012 "fireproof-coating of concrete structure"

Serial number	Test items		Technical index
1	state in containers		After mixing, the liquid is well-distributed and thick, without agglomeration
2	drying time		≤ 24h
3	Bond strength	Before freeze-thaw cycles	≥ 0.15MPa
		After freeze-thaw cycles	≥ 0.15MPa
4	density		≤ 700kg/m^3
5	Water resistance		Testing by 720h, coating does not show crazing, aliquation , no falling off, and allowing a slight swell and color change
6	Acid resistance		Testing by 360h, coating does not show crazing, aliquation , no falling off, and allowing a slight swell and color change
7	alkaline		Testing by 360h, coating does not show crazing, aliquation , no falling off, and allowing a slight swell and color change
8	Freeze-thaw cycle resistance		After 15 times testing, coating does not show crazing, aliquation , no falling off, and allowing a slight swell and color change
9	Humidity resistance		Testing by 720h, coating does not show crazing, aliquation , no falling off, and allowing a slight swell and color change
10	The toxicity of smoke		Not less than the the GB/T20285-2006 provisions of the toxicity of smoke dangerous classification ZA1
11	**Fire Resistance**		≥ 2.0 (Standard heating)
			≥ 2.0 (temperature rise for tunnel hydrocarbon fire)
	Fireproof property		≥ 2.0(temperature rise for petrochemical plants fire)
			Temperature up≥1.50 , Temperature down≥1.83 (Temperature raise for tunnel fire)

HLFD-II inorganic sealing material (DW A3-HLFD-II inorganic sealing material)

Product introductions

HLFD-II is widely used in the cable penetrating hole of power plants, substation, power supply tunnel, metallurgy, chemical industry, high buildings and other projects. It has excellent performance of fire prevention and heat-insulation.

Advantages

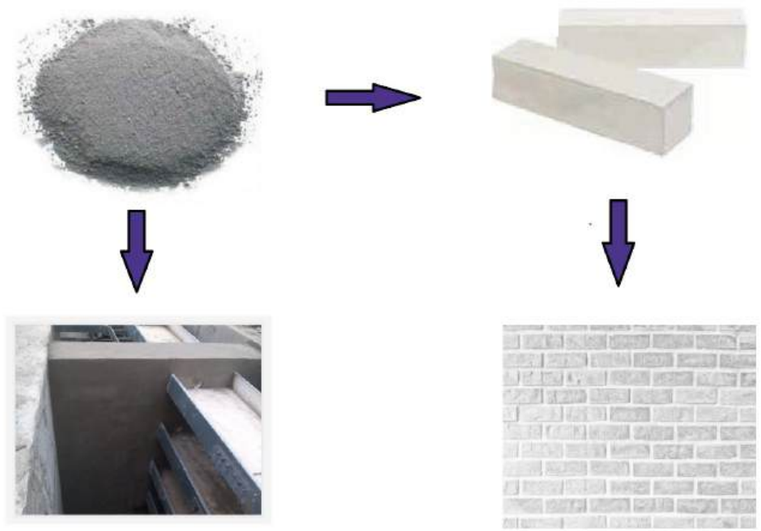
No poison and smell; Water resistance; Oil resistance; Corrosion resistance; convenient for construction.

Installation instructions

1 Separate cable channels with brackets and plank, and eliminate the dust and oil on the surface of cables;
2 In the construction, firstly add a right amount of water into a container, then slowly add the sealing material into the container while mixing it. Well-stirred sealing material shall be used immediately , and add mixed slurry into one sealing material with 0.3 ~ 0.5 portion of water;
3 add mixed slurry into gap between bracket and plank; every process should be finished within 15-40 min.

Packaging and storage

The Internal of this product should be packed in plastic bags; the outside should be packed in woven bags. And 20 kg per bag. Make sure it is sealed dry and pay attention to the rain. It will lose efficacy when it agglomerates because of damp. The storage period is one year.



HLFD-II inorganic sealing material (DW A3-HLFD-II inorganic sealing material)

Technology index

Inspection according to GB23864-2009
"fireproof and sealing material"

Serial number	Test items	Technical index
1	Fire resistance	Fire integrity≥3h, fire insulation≥3h
2	Appearance	Gray solid powder, without aggregation
3	Apparent density	About $1.5 \times 10^3 kg/m^3$
4	Initial setting time	10min ≤ t ≤ 45min
5	Compression strength	0.8Mpa ≤ R ≤ 6.5MPa
6	corrosivity	≥ 7d,No rust, corrosion phenomenon
7	Water resistance	≥ 3d， No swelling, No crack
8	Oil resistance	
9	Humidity resistance	≥ 120h,No crack,No pulverization
10	Freeze-thaw cycle Resistance	≥ 15 No crack, No pulverization

ZQJ non-ignitable fireproof board (fireproof Partitions)

Product introductions

ZQJ non-ignitable fireproof board is a new generation of inorganic non-ignitable fireproof product. It mainly consists of glass fiber reinforced materials and inorganic binder. This product can be installed conveniently, and it is applicable to the fire prevention . And it can be used together with fireproof sealing materials, which can effectively prevent cable burning.

Advantages

Non-burning and non-burst; Water resistance; Oil resistance; chemical corrosion resistantance; Non-toxic; High mechanical strength.

Storage requirements

The product should be stored in dry and ventilated room, and it need to keep away from the rain.

Type	Length （mm）	Width （mm）	Thickness（mm）
ZQJ–5	2000	1000	5
ZQJ–8	2000	1000	8
ZQJ–10	2000	1000	10

Note: special specification can be customized according to the customer's request.

ZQJ non-ignitable fireproof board (fireproof Partitions)

Technology index

Inspection according to GB25970—2010 "non-ignitable inorganic composite plate"

Serial number	Test items	Technical index
1	Combustion performance	Reach GB8624-2006 level A1
2	Apparent density	About $1.80 \times 10^3 kg/m^3$
3	Dried buckling strength	≥ 15MPa
4	Bibulous saturated state buckling strength	≥ 10MPa
5	Dilution deformation rate	≤ 0.2%

Installation and application

● The Construction method of sealing the cable vertical shaft

1 The preparation of the instruments
Electroscope Glue guns, the brush, the bucket, small trowel, and the knife.

2 The preparation of the materials
FS-I fireproof sealant (water-based, intumescent), FS-F fireproof sealant, FP-C fireproof cable coating(or FP-CF fireproof cable coating), and FB-1 fireproof sealing plank.

3 Construction procedures
(1) Calculated the how much FB-1 fireproof sealing plank world be used according to the sealing size cut and opened the cable hole and covered vertical shaft with it ;

(2) Splicing and banding the gap between the fireproof boards and the gap between boards and vertical shaft with FS-E Elastic fireproof sealant (or FS-C gap sealing sealant or FS-F intumescent fireproof sealant), and sealing the crevice between boards and cable with FS-I intumescent fireproof sealant;

(3) Splice and band the gap between the fireproof boards and vertical shaft with FS-F elastic fireproof sealant,and seal the crevice between boards and cable with FS-I fireproof sealant;

(4) After the curing of sealant (about 6 to 12 hours),paint the surface of the sealing layer with FP-C (or FP-CF) fireproof cable coating, and paint the bottom cables with FP-C (or FP-CF) fireproof cable coating according to the real situation. To avoid flame spreading along cables, the brushing length is 1000mm and the dry film thickness is 1mm.

● The construction method of cable shaft

1 The preparation of the instruments
Glue guns, the bucket, small trowel,brush.

2 The preparation of the materials
FS-I fireproof sealant(water-based, intumescent), FS-F elastic fireproof sealant, FP-C fireproof cable coating(or FP-CF fireproof cable coating), and FB-1 Fireproof sealing plank.

3 Construction procedures
(1) Calculated the how much FB-1 fireproof sealing plank world be used according to the sealing size cut and opened the cable hole and covered vertical shaft with it ;

(2) Splice and band the gap between the fireproof boards and the gap between boards and vertical shaft with FS-F fireproof sealant, and seal the crevice between boards and cable with FS-I fireproof sealant ;

(3) After the curing of the sealant(about 6 to 12 hours), paint the cable at the bottom of sealing layer with FP-C fireproof-cable coating (or FP-CF fireproof-cablecoating). To avoid flame spreading along cables, the brushing length is 1000mm and the dry film thickness is 1mm;

(4) When Shaft height is less than 7m, we should set a fireproof sealing layer at the top and bottom of the shaft respectively; when Shaft height is more than 7 m, we should seal it every 7m; when shaft penetrates into the floor, we should seal the joint part. The sealing must be close-grained without aperture.

Installation and application

● The construction method of fire resistant wall of cable tray&cable tannel

1 The preparation of the instruments
Glue guns, the brush, the bucket, small trowel, and the cleaver.

2 The preparation of the materials
FS-I fireproof sealant, FC-1 fireproof plaster (or FS-Z fireproof module), FP-C fireproof cable coating (or FP-CF fireproof-cable coating).

3 Construction procedures
(1) First we shall clean the cable surface before the sealing, and estimate how much FC-1 fireproof plaster would be used according to the size of the hole that to be sealed. And then based on the product description, we pour water into the plaster according to the proportion, and immediately use it after it is well-mixed. At this time, we should finish the sealing in permissible time after products are mixed. If ouertime products may be cured , and also it might not be used;

(2) The construction procedures of mixed fireproof plaster is the same as the construction procedures of cement mortar. In order to construct more conveniently, we can make it into some suitable bricks;

(3) Block he holes with mineral wool, and paint the both sides of mineral wool with FS-I fireproof sealant , the thickness is 20 mm;

(4) At last, paint the two sides of cables with FP-C fireproof-cable coating or FP-CF fireproof-cable coating, and the length is 1000 mm.

● The construction method of cable bridge penetrating into wall

1 The preparation of the instruments
glue guns, the brush, the bucket, and the knife.

2 The preparation of the materials
FS-I intumescent fireproof sealant, FB-1 fireproof sealing plank, FP-C fireproof-cable coating, and FS-E Elastic fireproof sealant.

3 Construction procedures
(1) First we should clean the cable surface before the sealing, and estimate how much FC-1 fireproof plaster would be used according to the size of the hole that to be sealed. And then based on the product description, we pour water into the plaster according to the proportion, and immediately use it after it is well-mixed. At this time, we should finish the sealing in permissible time after products are mixed. If ouertime products may be cured and also, it might not be used;

(2) The construction procedures of mixed fireproof plaster is the same as the construction procedures of cement mortar, in order to construct conveniently, we can make it into some suitable bricks;

(3) Block the holes with mineral wool, and paint the both sides of mineral wool with FS-I fireproof sealant , the thickness is 20 mm;

(4) At last, paint the two sides of cables with FP-C fireproof-cable coating or FP-CF fireproof-cable coating, the length is 1000 mm and the dry film thickness is 1mm.

Installation and application

● The construction method of cable bridge

1 The preparation of the instruments
Glue guns, the brush, the bucket, small trowel, and the knife.

2 The preparation of the materials
FS-I intumescent fireproof sealant, FC-1 fireproof plaster (or FS-Z fireproof module), FP-C fireproof-cable coating (or FP-CF fireproof-cable coating).

3 Construction procedures
(1) First we should clean cable surface before the sealing, and estimate how much of FC-1 fireproof plaster would be used according to the size of the hole that to be sealed. And then based on the product description, we pour water into the plaster according to the proportion, and immediately use it after it is well-mixed. At this time, we should finish the sealing in permissible time after products are mixed. If ouerline products may be cured , and also it might not be used;

(2) The construction procedures of mixed fireproof plaster is the same as the construction procedures of cement mortar. In order to construct more conveniently, we can make it into some suitable bricks;

(3) Block the holes with mineral wool, and paint the both sides of mineral wool with FS-I fireproof sealant, its thickness is 20 mm;

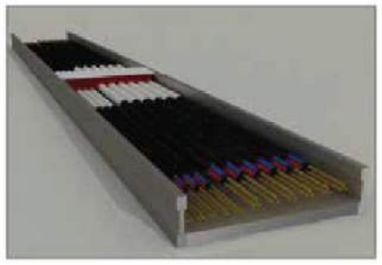
(4) At last, paint the two sides of cables with FP-C fireproof-cable coating or FP-CF fireproof-cable coating, and the length is 1000 mm.

● The construction method of cable penetrating into pipe

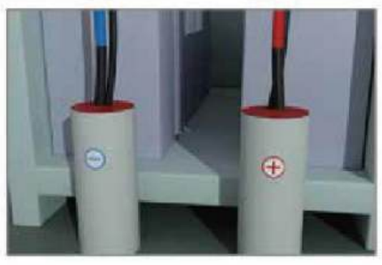
1 The preparation of the instruments
Glue guns, the bucket, and the kinfe.

2 The preparation of the materials
FS-I intumescent fireproof sealant.

3 Construction procedures
For the cable penetrating pipe, we should block the head of pipe with FS-I fireproof sealant , and it will form a sealing layer with thickness of more than 20 mm.



Bridge fire section



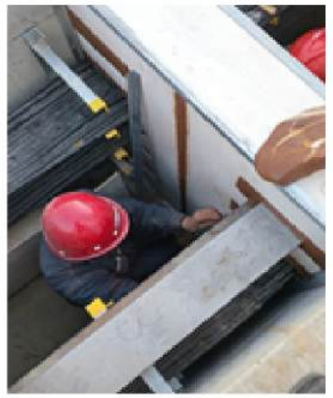
sealing of pipes where cables running through











Main Project Achievements

◇The nuclear power industry

Jiangsu Tianwan Nuclear Power station
Shandong Shidaowan Nuclear Power station
Shandong Haiyang Nuclear Power station
Fujian Fuqing Nuclear Power station
Fujian Ningde Nuclear Power station
Guangxi Fangchenggang Nuclear Power station
Hainan Changjiang Nuclear Power station
Guangdong Yangjiang Nuclear Power station
Guangdong Taishan Nuclear Power station
Zhejiang Fangjiashan Nuclear Power station
Zhejiang Sanmen Nuclear Power station
Zhejiang Qinshan Nuclear Power station
Liaoning Hongyanhe Nuclear Power station
Qinghua Nuclear research project
Paksitan Karachi Nuclear Power station

◇China Guodian Cororation

GD Taizhou power plant
GD Taian power plant
GD Shuangliao power plant
GD Chengdu jintang power plant
GD Changzhou power plant
GD Jianbi power plant

◇ Chian Huaneng Group

Huaneng Laiwu power plant
Huaneng Xinning power plant
Huaneng Nantong power plant
Huaneng Weihaipower plant
Huaneng Yimin power plant
Huaneng Huaiyin power plant

◇ China Huadian corpretion

CHD Suzhou wangting power plant
CHD Yizheng wangting power plant

◇ China Datang Corporation

CDT Nanjing power plant
CDT Nantong Lvsi power plant
CDT Gansu Jingtai power plant
CDT Zhejiang ShaoxinG Gas Cogeneration Preject
CDT XinJiang weikexun power plant
CDT Nanjing Shaoxin Binjiang Cogeneration plant

◇China Power Investment Corporetion

CPI Changshu Power Plant
CPI Yanshanhu Power Plant
CPI Tongliao Power Plant
CPI Xuzhou Kashan Power Plant

◇Power suppy Class

State grid South Tianjing 1000KV converter station
State grid Shandong Weifang 1000KV converter station
State grid Jiangsu Taizhou 800KV converter station
State grid Shanxi Jinbei 800KV converter station
State grid Jarud Banner 800KV converter station
State grid Shandong Linyi 800KV converter station
State grid Shanghaimiao 800KV converter station
State grid Ningxia Lingzhou 800KV converter station
State grid Zhejiang Jinhua 800KV converter station

Main Project Achievements

◇The thermal power station

Fujian Longyuan power station
Anhui Huainan Pingxu power plant
Zhaolou coal power plant
Jiangsu Taizhou power plant
Vietnam Yongxin power plant
Jiangsu Ligang power plant

◇Rail transportation

Xiamen metro
Tianjing metro
Suzhou metro
Qingdao metro

◇Hydropower station

Sanxia Xiangjiaba hydropower station
Fujian Songtanpu hydropower station
Fujian Jiuxianxi hydropower station
Sichuan Renzhonghai hydropower station
Shenzhen pumped storage power station
Xiangjiaba ship lift project

◇Mobile industry

China Telecom Colud computing infomation park
Zhejiang Dongci buliding
Changzhou Modem media center
China Mobile centralized purchasing business

◇Industrial and civil construction

Zhenjiang Suning trucks
Yancheng KIA project
Akeris Aluuminum Co,Ltd.
Suzhou Samsung Technology Co,Ltd.
Xugong heavy trucks
Malaysia KANTHAN project
Pakistan Fatima power plant
Africa Ghana combustion engine project
CGNPC Rudong offshore wind power project
Burma DaGong mountain nickel ore project

◇Other

The three groges Xiangshui wind power project
Huaneng Xining themoelectric project
Guangdong neutron source accelerator project
Qingzhou garbage power plant
CR Power Linzhi power plant
Jingxin high speed jihu tunnel project
Hubeii Yidudongyang power plant