

**HUISINS**

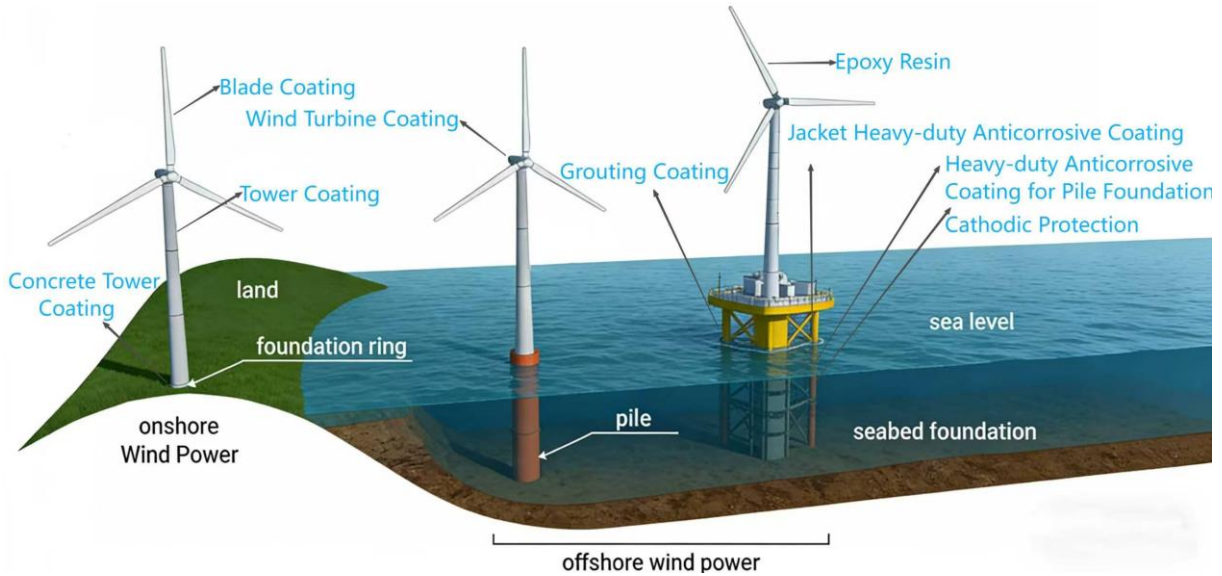
**SUNRUI**

**Comprehensive Corrosion Protection  
Solutions for Wind Power**



# Product Portfolio

» » The Most Comprehensive Wind Power Anti-Corrosion Product Portfolio



## Blade Coating Product Certification



Third-Party Test Report



Anti-icing Performance



DNV Certificate for Blade Coatings

## Obtained Full Product Certification from Authoritative Institution



Certification for Infusion Resin



Certification for Pultrusion Resin



Certification for Hand Lay-Up Resin



NORSOK M-501 Certification for Tower and Foundation Coatings



Full DNV and BV Certification System for Sacrificial Anodes



Coating and Cathodic Protection

## » Total Engineering Solution



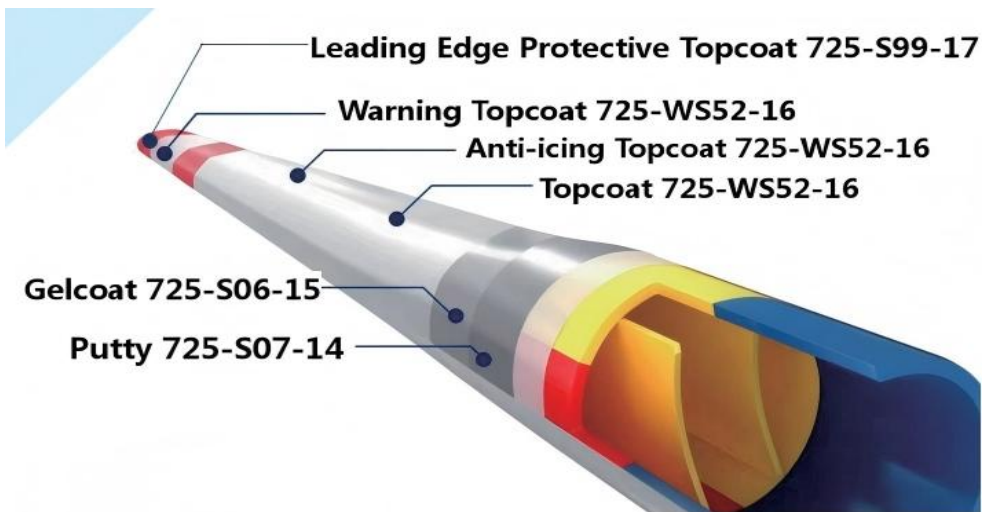
Class I Qualification for Waterproofing, Anti-Corrosion, and Thermal Insulation Engineering

## Solution Design – EPC – Field Service

Our company is the only domestic provider offering fully integrated anti-corrosion solutions, combining coatings, application, and cathodic protection. This integrated approach ensures optimal compatibility between coating and anode systems, guaranteeing superior corrosion protection and long-term project reliability.

# Blade Coating Features

## » » Blade Coating Performance



### **Blade Coating Characteristics :**

1. High strength and fatigue resistance ;
2. Excellent corrosion resistance ;
3. Superior abrasion resistance ;
4. Integrated anti-icing topcoat for easy application ;
5. Fungal / mold resistance ;

### » » **Blade Coating**

#### **Solvent-Free Filler :**

1. Controllable curing speed ;
2. Controllable curing speed ;
3. Easy application / Labor-saving ;
4. Can replace pinhole filler (with diluent) ;

#### **Solvent-Free Gelcoat :**

1. Environmentally friendly ;
2. Excellent mechanical properties ;
3. Available in standard and fast-curing formulations for diverse application environments ;

#### **Waterborne Topcoat :**

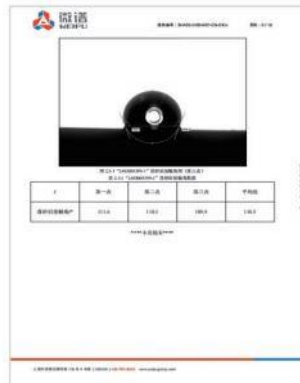
1. Environmentally friendly ;
2. Excellent mechanical properties and aging resistance ;
3. Anti-icing function (contact angle:  $112^{\circ}$ ) ;
4. Re-coatable ;

#### **Solvent-Based Topcoat :**

1. Excellent drying speed ;
2. Excellent low-temperature application performance ;
3. Re-coatable with minimal color change ;
4. Excellent mechanical properties and aging resistance ;

#### **Leading Edge Protection (LEP) Coating :**

1. Excellent rain erosion resistance ;
2. Excellent damp heat resistance ;
3. Excellent aging resistance .



## » Production Capability

Production Line	Capacity
Filler	500t/year
Gelcoat	2000t/year
Topcoat	1500t/year



Filler Production Line



Gelcoat Production Line



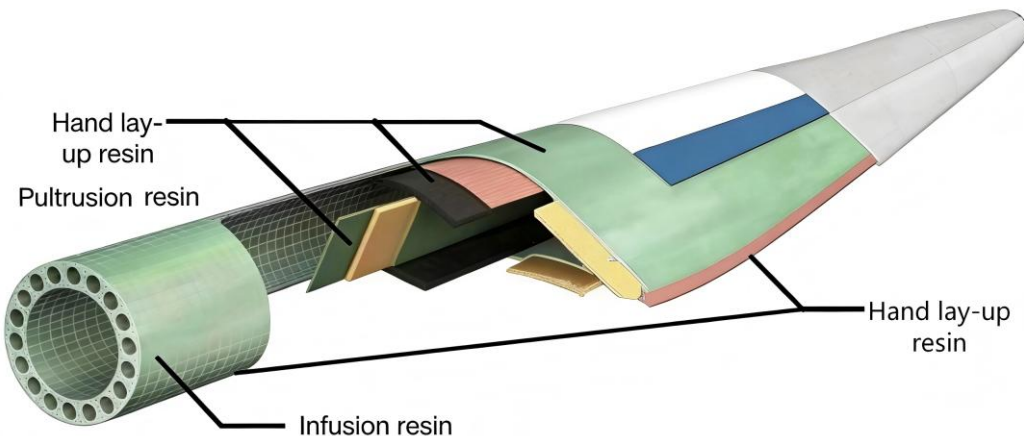
Topcoat Production Line

# Resin Material

## » » Epoxy Resin System and Properties

### Epoxy Resin

-DNV certified: Infusion, pultrusion, and hand lay-up resins.



## Epoxy Resin Characteristics

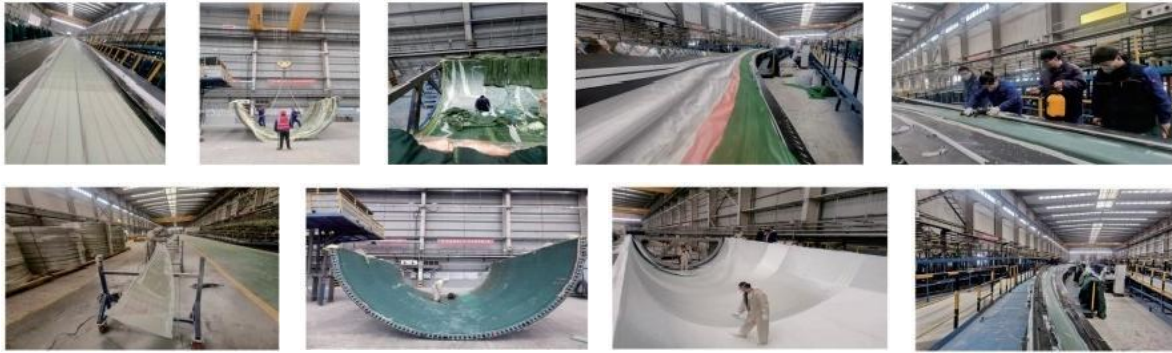
### Pultrusion Resin:

1. Excellent mechanical properties, thermal stability, and strength after curing ;
2. Consistent quality: excellent flow, good fiber wetting, easy mold release, long working time ;
3. Modular production reduces investment in blade manufacturing.

### Infusion and Hand Lay-Up Resins :

- Low viscosity for excellent flow and wetting
- Long working time for flexible processing
- Low exotherm to minimize thermal stress
- Excellent fiber wetting properties
- Good mechanical strength
- Superior fatigue resistance
- Cost-effective formulation

## » » Blade Root and Spar Cap Production



## » Production Capability

Production Line		Capacity
Infusion Resin	Part A	15000t/year
	Part B	
Pultrusion Resin	Part A	4000t/ year
	Part B	
Hand Lay-Up Resins	Part A	2000t/ year
	Part B	



Nitrogen Station



Epoxy Resin Part A  
Production Equipment



Pultrusion Hardener  
Production Line



Infusion Hardener  
Production Line

# Tower and Foundation Coating Features

## » Complete Coating System for Tower – All Environments

Corrosive Environment	Coating Area	Product Model	Dry Film Thickness (µm)	Total Thickness (µm)
C4	Tower Exterior Surface	725-H53-87 High-build epoxy coating	150	200
		725-BS43-91 Recoatable polyurethane finish	50	
	Tower Interior Surface	725-H53-87 High-build epoxy coating	180	180
C5-H	Tower Exterior Surface	725-H06-21 Epoxy zinc rich primer	50	260
		725-H53-87 High-build epoxy coating	160	
		725-BS43-91 Recoatable polyurethane finish	50	
	Tower Interior Surface	725-H06-21 Epoxy zinc rich primer	60	220
		725-H53-87 High-build epoxy coating	160	
C5-VH	Tower Exterior Surface	725-H06-21 Epoxy zinc rich primer	60	320
		725-H53-87 High-build epoxy coating	200	
		725-BS43-91 Recoatable polyurethane finish	60	
	Tower Interior Surface	725-H06-21 Epoxy zinc rich primer	60	260
		725-H53-87 High-build epoxy coating	200	
CX-VH	Tower Exterior Surface	725-H06-21 Epoxy zinc rich primer	80	380
		725-H53-87 High-build epoxy coating	220	
		725-BS43-91 Recoatable polyurethane finish	80	
	Tower Interior Surface	725-H06-21 Epoxy zinc rich primer	80	300
		725-H53-87 High-build epoxy coating	220	

## 》 Excellent Corrosion Durability

### Standard Coating System for Wind Tower:

#### Primer + Intermediate + Topcoat

**Zinc rich primer:** Cathodic protection conductive network – maximizes zinc protection, extends coating life. Enhanced permeability and flexibility with premium curing agent for superior durability.

**MIO Epoxy Intermediate Coat:** Fish-scale-like barrier structure – isolates primer from moisture and air, extending primer service life.

**High-Weather-Resistant Topcoat:** High flexibility and excellent weather resistance extend coating service life.



M-501 Certification Report: Primer + Intermediate + Topcoat

### Standard Coating System for Wind Foundation:

#### Glass Flake Coating + Topcoat

Glass flake coating effectively isolates or delays the contact of corrosive media such as H<sub>2</sub>O and O<sub>2</sub> with the steel surface, maximizing shielding properties and abrasion resistance. It ensures film flexibility and good wetting, enhancing adhesion to the substrate.



M-501 Certification Report: Glass Flake Epoxy Coating

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# Cathodic Protection Product Features

## » Supply Capacity

**Asia's largest and most advanced production capacity, setting world-class benchmarks – ensuring reliable project supply.**

Annual Sacrificial Anode Production Capacity: 20000 Tons

Annual ICCP System Production Capacity: 3,000 Units



## » Market Applications

### Marine Anti-Corrosion System

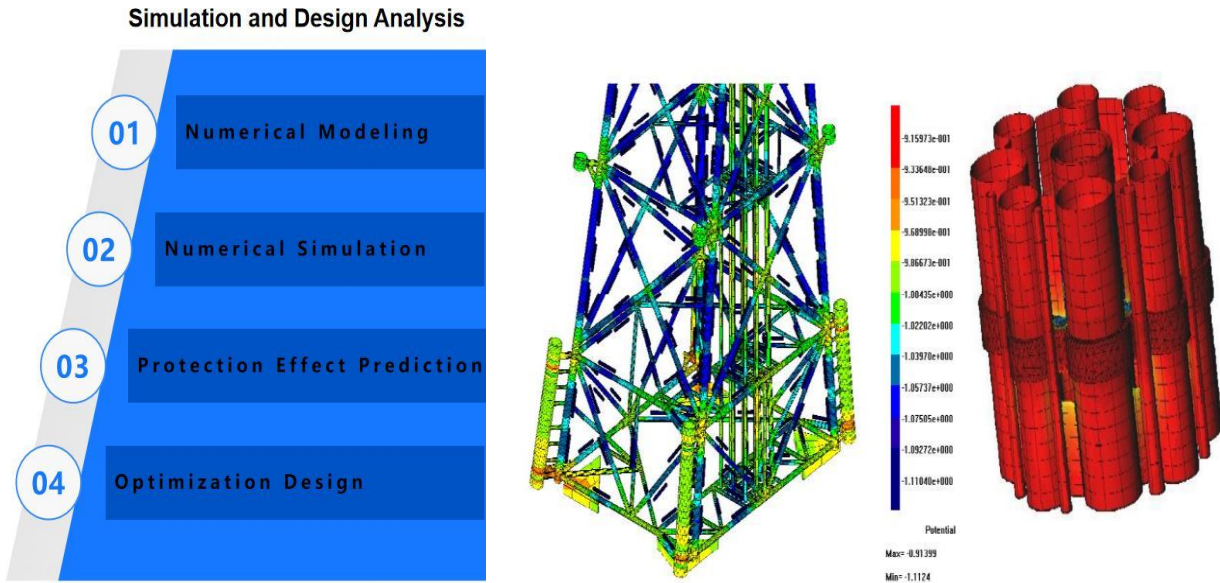
**(Coating + Electrochemical Protection)**

**Over 2,000 Anti-Corrosion Engineering Projects Completed**

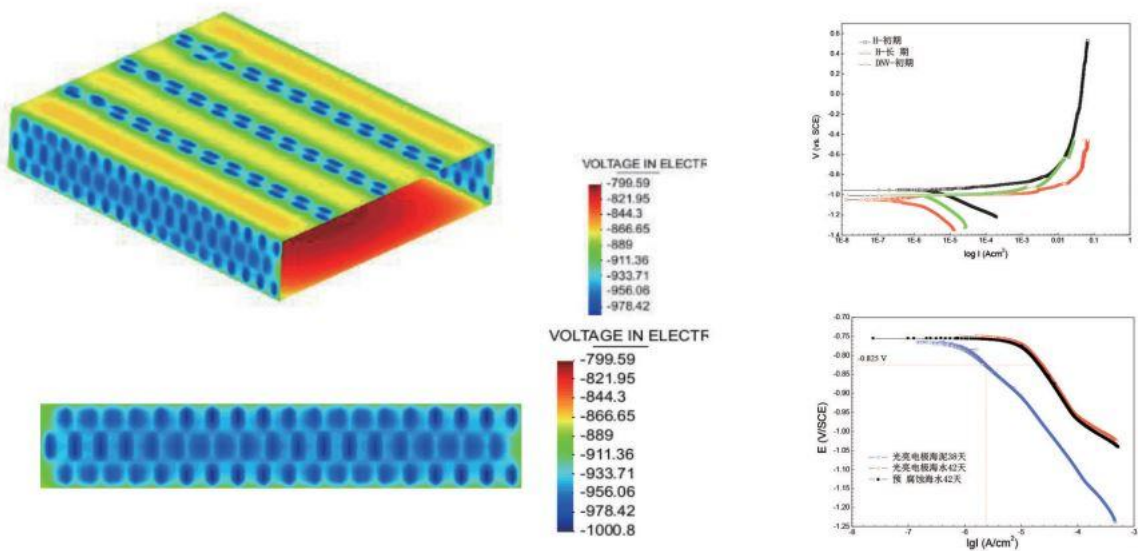
- ◆ Vessels and Offshore Platforms
- ◆ Water Diversion Project
- ◆ Offshore Engineering
- ◆ Buried Pipeline
- ◆ Bridges and Wharves
- ◆ Municipal Gas
- ◆ Wind Power Facilities
- ◆ Power Stations and Substations

## » Technical

Leveraging a world-class anti-corrosion simulation and design platform, we input corrosion parameters and perform precise optimization to develop the most effective protection solution.



Through 3D anti-corrosion simulation and experimental validation, the anode + coating scheme for the large steel shells of the Shenzhen-Zhongshan Link was verified, resulting in an internationally leading technical solution that provides strong assurance for the durability of steel structures.



# Offshore Wind Power Projects



Floating Wind Turbine Foundation Platform



Three Gorges Xiangshui Offshore Wind Power Project



Zhuhai Guishan Offshore Wind Power Project



300MW Offshore Wind Power Project



500MW Offshore Wind Power Project



Offshore Wind Power Project

# Onshore Wind Tower Project



Xinjiang Wind Turbine Project



Hami Shisanjianfang Wind Power Project



Henan 120m Hybrid Tower Project



Xingcheng Phase II Wind Power Project



Henan 40MW Hybrid Tower Project



Beibutan Wind Power Project



Handan Wind Power Project



Jilin Hybrid Tower Project



Ningxia Wind Power Project



Liangqing Nama Wind Power Project



Guangxi Wind Power Project

# Offshore Photovoltaic Project

## 》》 SPIC HG34 Offshore Photovoltaic Project



## 》 CHN Energy Weifang HG16 Offshore Photovoltaic Project



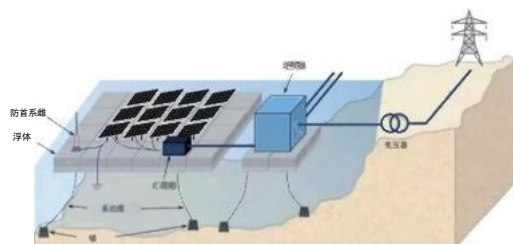
## 》》 Guohua Dongying HG14 Offshore Photovoltaic Project



## 》 PowerChina Jimo HG37 Offshore Photovoltaic Project



## 》》 Mibet Offshore Floating Photovoltaic Demonstration Project





**Huising Coatings-Your Trusted Protective Coating Partner**

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