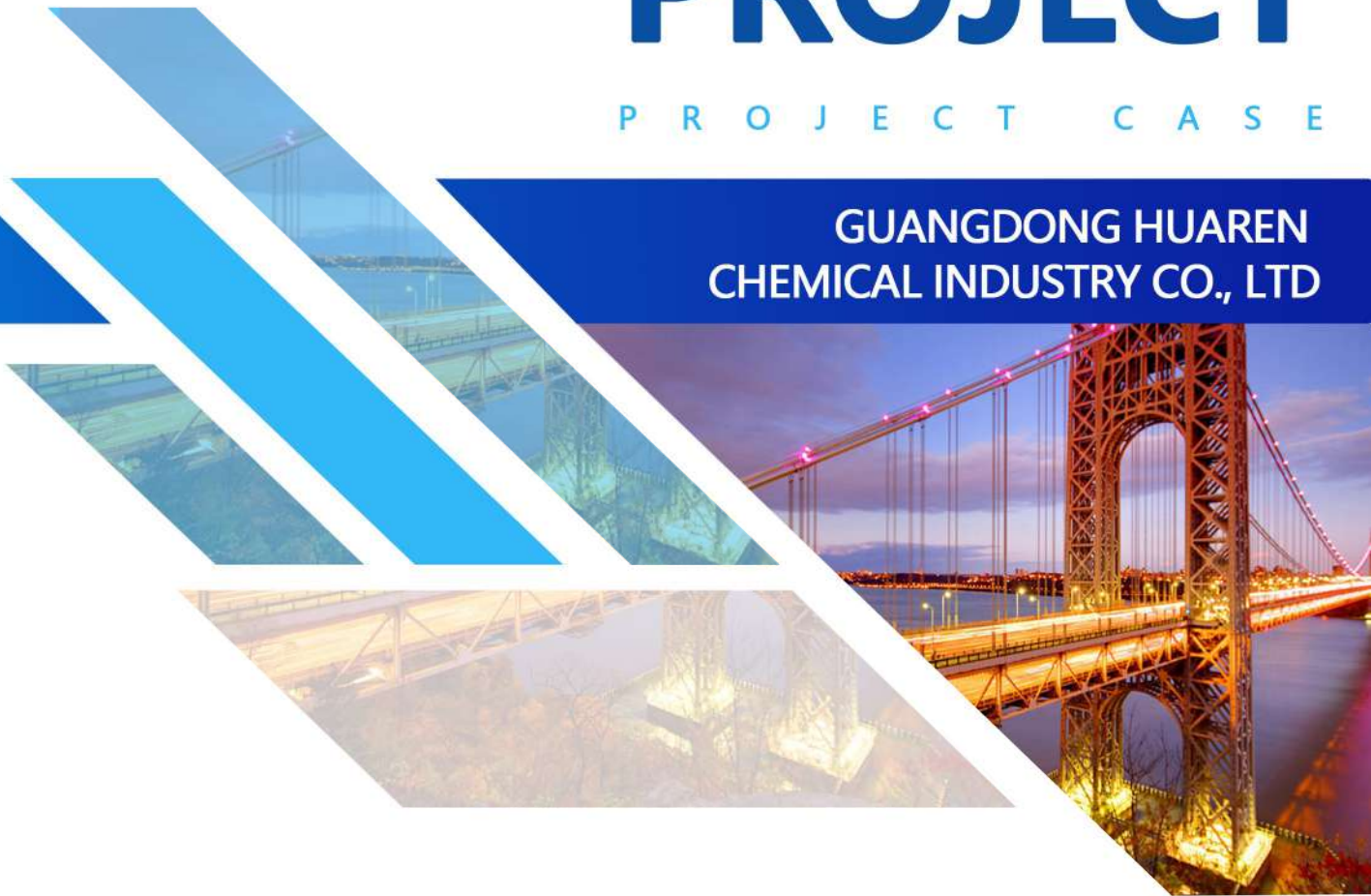


# PROJECT

P R O J E C T C A S E

GUANGDONG HUAREN  
CHEMICAL INDUSTRY CO., LTD



## **PROJECT:**

DEJIANG OIL DEPOT OIL TANK ANTI-CORROSION COATING PROJECT-ABOUT 60,000 SQUARE METERS OF OIL TANKS AND AUXILIARY PIPELINES

## **PROJECT LOCATION:**

HANOI, VIETNAM

# PROJECT NAME: DEJIANGOIL DEPOT OIL TANKPROJECT-ABOUT 60,000ANTI-CORROSIONCOATINGOF OILTANKS ANDAUXILIARYSQUAREMETERSPIPELINES.

**CONSTRUCTION TIME: SEPT. 2019-FEB.2020.**

**THE BASIC SITUATION OF THE PROJECT IS AS FOLLOWS:**

- 4) 按项目规划、本采购案计划建设周期 150 个自然日(起算) 采购预算 USD3,600,000 ;
- 5) 技术对接:

储罐数量	38 座
罐体结构	拱顶油罐/浮顶
主体材质	SS400B/Q235-B
施工部位	Tank External/外
涂装工艺	视供应方
技术要求	1. 罐底边缘伸出 罐外 200mm 级均为 Sa2.5 2. 防腐部位包括 化工大气、并 护寿命;

## 2. 关于标的物【Subject matter】及交付:

标的物【Subject matter】——德江油库库区内  
包括: 涂装方案  
及后续施工管理;  
交付: 上述“标的物【Subject matter】”范围内  
指定装运港船边交付) / FOB (指定装运港

## 3. 关于标的物【Subject matter】项下方案设计

供应方按采购方实际建设需求及现场具体  
家标准(GB)及中华人民共和国市场上广泛采用  
Standard】(等同采用 Idt /等效采用 Eqv) 。对  
括整体涂装方案的确定、涂装材料/原料的选择  
套、边界条件、边界接口、边界界面的衔接及

## 4. 关于标的物【Subject matter】项下涂装材料/

标的物【Subject matter】项下为满足防腐  
材料、设备(现场配套设施由采购方负责)及  
工具(如有),以及本文件中未提及的,为确保  
集成、采购直至 FAS (指定装运港船边交付) /

## 前海創億

关于: 越南黄发集团公司【Tập đoàn Hoàng Phát】

德江油库【Kho dầu đức giang】油罐防腐涂装项目

### 基础情况:

项目名称: 德江油库【Kho dầu đức giang】油罐防腐涂装项目 / 【PetroVietnam】  
Project Name

发包方: Hoang Phat Production Trading Development Company Limited【黄发集团公司】  
Sole Contractor

项目地点: 越南河内市/ 嘉林县 ;  
Project Site

採購需求: 防腐涂装【Anticorrosive Coating】  
Procurement Requirements

采购数量: 计划采购量 2019 年约 6 万平方米 (大于等于) 含油罐及附属管线 ;  
Purchase Quantity

采购模式: 非竞争性谈判【Noncompetitive procurement】  
Procurement Mode

采购周期: 2019 年至 2020 年度 (顺延财年、以款项到供货方账户起计)  
Purchasing Cycle

交付进度: 按项目现场推进进度、款项到供应方账户下一工作日起 150 个自然日  
Delivery schedule

交付方式: FAS (指定装运港船边交付) / FOB (指定装运港船面交付)  
Terms Of Delivery

交付地点: FAS/FOB  
The Delivery Place

结算方式: TT 即期/电汇【Telegraphic Transfer】LC 即期/信用证【Letter of Credit】  
Settlement Mode

### 采购内容:

#### 1. 关于项目:

- 1) 德江油库【Kho dầu đức giang】1997 年由越南石油天然气集团【PetroVietnam】投资兴建、2002 年划归越南黄发集团公司【Tập đoàn Hoàng Phát】运营,是目前河内市单体最大的成品油储存基地;
- 2) 德江油库【Kho dầu đức giang】占地面积 200 余亩,此次需要防腐的油罐 38 座: 其中 5000m<sup>3</sup>油罐 16 座, 10000m<sup>3</sup>油罐 10 座, 20000m<sup>3</sup>油罐 6 座, 50000m<sup>3</sup>油罐 6 座, 油库总库容 600000m<sup>3</sup> ;
- 3) 本次采购主体为“黄发集团公司【Tập đoàn Hoàng Phát】”, 采购范围为河内市德江油库库区内 38 座油罐外表面防腐涂装的设计【Engineering】、采购【Procurement】、施工管理【Construction management】;

### 【Construction Management】:

施工、安装、调试、检测、验收(含“本地”市场及技术  
收等”)及土建配套、周边配套由采购方具体实施; 供  
及干预(如需要); 包括培训、施工、安装过程中及时  
、答疑等(如需要);

最低库存容量要求、计划分三期实施、施工周期 150 个自  
;

罐顶及钢结构外表面)面积=60000m<sup>2</sup>(以实际面积结算)

共和国相关技术规则、并结合本地市场工程建设成本的  
充分考虑市场或非市场因素变动而发生的市场性、技术

的“功能性、技术性”提出广泛的要求,并未考虑“标  
材的型号、规格、品牌、来源等或因市场价格、汇率等产  
等因素产生的价格浮动;

市场因素变动而发生的市场性、技术性或因行政性的变  
、产生的价格浮动在下付预算表“加权系数”中体现;

	加权系数
	0.8--1.2

人民币离岸汇率绑定);

Transfer】

edi】

】”实际具体采购量的总额的 65% 给付(指定 FOB (商

”交付后下一个日历日起三十个日历天内,按“当前批  
总额 5% 给付

# COATING MATCHING SCHEME

## PAINT SELECTION

PAINT ED PARTS	COATING	DESCRIPTION OF COATING	RECOMMENDED LAYER QTY	PAINTING RECOMMENDED INTERVAL (H)	THICKNESS PER COAT (UM)	CONSTRUCTION METHODS	ANTI-CORROSION PERIOD
STEEL STRUCTURE	PRIMER	EPOXY ZINC RICH PRIMER (2K)	1	24	100	SPRAYING	10年
	INTERMEDIATE PAINT	EPOXY MIO BARRIER PAINT (2K)	1	24	160	SPRAYING	10年
	TOP-COAT PAINT	2K ACRYLIC POLYURETHANE PAINT (2K)	2	24	60	SPRAYING	10年
	TOTAL		4		300		

The matching plan should be read together with the product technical specification and safety technical specification.

## PREPARATION BEFORE PAINTING

**LABOR PROTECTION:** In order to avoid contamination of skin and eyes or inhalation or inhalation of excessive paint mist, please use protective equipment such as masks and gloves.

**OPENING THE BUCKET:** When opening the bucket, the dust and sundries outside the can should be wiped clean first, so as not to mix into the paint bucket. If there is a crust after opening the barrel, the paint leather should be taken out as a whole or divided into several pieces, and the paint leather should not be crushed and mixed into the paint, so as not to affect the quality.

**STIRRING:** Before using the paint, all the paint and sediment in the bucket must be stirred well before use. Paint mixing utensils need to be used separately and must be cleaned after use.

**PROPORTION:** For two-component paint, components A and B must be mixed evenly before use, and then mixed evenly according to the ratio specified in the construction manual. Once the two-component paint is mixed, it must be used up within the pot life (generally 2 hours), so it is necessary to master the amount, how much to use, and how much to mix to avoid waste.

**CURING:** For two-component coatings, the curing time is stipulated in the instructions, and it is required to place the two components for a certain period of time (about 15 minutes) before use, so that components A and B can react to a certain extent in advance to ensure construction performance and paint film performance.

**DILUTION:** Dilute according to the type of diluent and the reference dosage specified in the instructions for use, so as not to cause paint scrapping or quality degradation.

**FILTRATION:** Filter through 80-120 mesh wire mesh before use.

## SUBSTRATE TREATMENT

To ensure long-lasting adhesion of the next coat, all surfaces must be clean, dry and free of contamination.

### DATA OVERVIEW OF SURFACE TREATMENT:

SUBSTRATE	TREATMENT
<b>CARBON STEEL</b>	After sandblasting or shot blasting, it can reach the Sa2 level specified in GB/T8923, Roughness 40-80 UM.
<b>WELDING, CUTTING AND BURNING OTHER PARTS OF STEEL COATED WITH WORKSHOP</b>	Sandblasting or shot blasting will at least 70% of the surface treatment to the Sa2.5 level specified in GB/T8923. Remove welding slag and all spatter, and then grind to level St3 with elastic grinding wheel, roughness 40-80 UM.

Apply anti-rust primer within 4 hours of substrate preparation.

## PAINTING INTERVAL

The interval between coatings is the process of coating the two coats. The requirement for the interval time must be carried out according to the guide time. Otherwise, the bonding between the coatings will be affected.

## OVERCOAT INTERVAL:

SUBSTRATE TEMPERATURE	10°C	25°C	30°C
<b>SHORTEST TIME</b>	48H	24H	20H
<b>LONGEST TIME</b>	7D	7D	7D

Paint that has been dry for more than 2 days is recommended to be sanded to remove dust before applying the next coat of paint. Especially the paint film that has been dried for more than 7 days must be strictly sanded and dust removed to prevent poor adhesion between paint layers.

## PAINTING SEQUENCE

### 1、 SURFACE TREATMENT REQUIREMENTS:

- (1) Use electric and other derusting tools to thoroughly remove the old coating and floating rust on the steel. The surface of the steel after treatment should be free of rust, loose old paint film and other impurities. Rust removal level should reach st2.5 level.
- (2) The parts of the outer surface of the steel that are not affected by rust are roughened with a coarse emery cloth.
- (3) After the first surface treatment is completed, anti-corrosion primer must be applied in time (generally within 4 hours) to avoid rust.

### 2、 PRIMER COATING:

- (1) After the steel surface has been derusted and met the requirements for use, the surface of the structure should be painted with primer, which can be applied by roller coating or spraying. When painting, pay attention to check the temperature

and humidity of the construction environment, the temperature and humidity of the construction environment, temperature and humidity of the steel surface, etc. If the environmental conditions do not meet the construction requirements, stop painting construction.

(2) Coating method: According to the requirements of construction conditions, paint coating is carried out by spraying or roller coating to meet the coating construction requirements.

### **3、 INTERMEDIATE PAINT COATING:**

(1) Check the primer film thickness, appearance, etc., and apply the intermediate paint after confirming that the primer surface is clean, free from contamination, leak-free and fully cured without defects.

### **4、 TOPCOAT PAINTING:**

(1) Check the film thickness and appearance of the intermediate paint, and apply the topcoat after confirming that the surface of the primer is clean, free from contamination, leak-free and fully cured without defects.

(2) Also pay attention to check the temperature, humidity, steel temperature and paint temperature when painting the topcoat. If the environmental conditions do not meet the construction requirements, stop painting construction.

(3) Apply paint by roller coating or spraying to meet construction requirements.

(4) Inspection: The surface of the coating should be smooth and flat, with the same color. Visually check whether there are any phenomena such as missing coating, sagging, orange peel, pinholes, etc., and take corresponding technological measures to repair the defects found in the inspection. Re-inspect until the pass is good.

### **5、 CHECK & ACCEPT:**

After the construction is completed, the construction surface should be inspected, the defective parts should be repaired, and the surrounding environment should be cleaned well, waiting for acceptance.

## **SAFETY AND HEALTH**

This product is for professional use only. Construction personnel and workers need to be trained, experienced, capable and equipped to properly mix/stir and apply paint according to Huaren's technical documents.

Construction personnel and workers are required to use appropriate personal protective equipment when using this product.

This guidance is provided based on existing product knowledge.

Any suggestions for changes made to adapt to site conditions need to be approved by Huaren Paint technical service personnel before use.

## **SAFETY AND HEALTH**

This product is a flammable, toxic and dangerous chemical and should be stored away from fire, heat and out of reach of children. In the event of a fire, the fire extinguishing agents that can be used include foam, carbon dioxide, dry powder and river sand.

Safety measures such as ventilation, fire prevention, anti-static and anti-poisoning should be taken at the construction site. The old, weak, sick, disabled, pregnant, children and people with allergies are strictly prohibited from entering the painting construction site.

If the paint is accidentally spilled on the ground, it should be cleaned up with cotton yarn and other items in time.

If the paint is accidentally splashed on the skin, it should be wiped off before washing with soap and water. When it splashes into the eyes, rinse with water for several minutes immediately, and send to hospital for treatment in serious cases.

Thinners, paints and packaging that need to be disposed of should be disposed of in accordance with the requirements of environmental protection regulations. It is strictly forbidden to pour them into sewers or drains, and it is strictly forbidden to discard them at will.

## **STATEMENT**

The protective effect of each coating is related to factors such as

coating construction, surface treatment, and paint film thickness, which will directly affect the service life of the coating. When using each product, the required construction conditions should be met. The relevant data of this matching plan are accumulated based on the test and experience, and are for reference only. This program is only suitable for professional use, other than the specified use and construction without our understanding, we only guarantee the quality of the paint itself. Users should consult Huaren Paint Technical Service Center for specific guidance on product performance according to their own needs and specific applications.



# REAL-LIFE SHOOTING AT THE PROJECT SITE

## ON-THE-SPOT INVESTIGATION

Arrive at the actual site to evaluate the construction site environment, and communicate with the engineering party to understand the needs of the project.



**CONNECT**



**FIELD SITUATION**

## WORK PROGRESS

Strictly abide by the construction plan.



After sandblasting or shot blasting, it reaches the Sa2.5 level specified in GB/T8923, and the roughness is 40-80um.

## PAINT COATING EFFECT



(1)



(2)



(3)



(4)



(5)



(6)