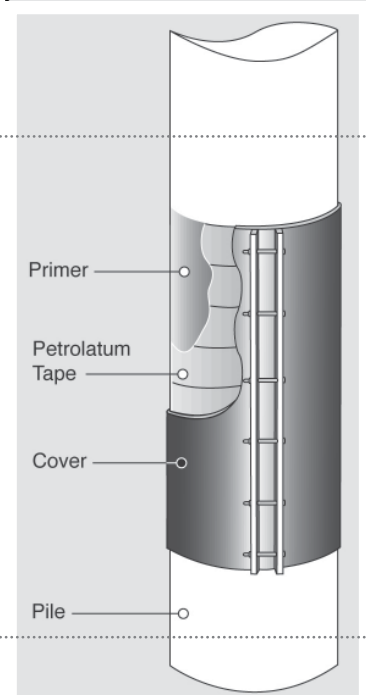


## SPLASHpro Series M2

Introduction

### 1. Introduction

The aggressive offshore environment of splash and inter-tidal zones makes corrosion control a challenge for conventional methods. These areas are exposed to waves, spray of seawater, and the atmosphere. The high concentration of salt, oxygen, temperature variation, and mechanical damage due to flotsam and jetsam make the splash zone the most easily corroded part of a wharf structure and also the most difficult to protect against corrosion. SPLASHpro M2 Series is comprised of an inner anti-corrosion barrier of STAC System petrolatum and an outer protection Jacket of HDPE, secured by Bolt-up to the piling.



### 2. STAC System - Corrosion Protection Inner Layer

SPLASHpro M2 offer a unique solution to Wharf and Jetty Piling corrosion by utilizing a combination of petrolatum-based products - STACprime (underwater), STACfill, and STACwrap (marine) tape. These petrolatum components repel seawater, salt, and oxygen, and passivates oxides. Once installed, the STAC System layer forms a corrosion-proof barrier which stops the progression of surface corrosion on the piling immediately and indefinitely. The STAC system consists of following products:

- *STACprime UW – A paste-like product to displace surface moisture and assure adhesion to the substrate. Applied directly to the piling surface, both above tide and underwater. Applied with a gloved hand, brush or roller.*
- *STACfill – A putty-like compound used to fill badly corroded, pitted surfaces, and voids in the piling.*
- *STACwrap Marine tape – A 100% synthetic stitch-bonded fabric saturated with a petrolatum compound for a longer lasting outer barrier seal, contains inert fillers, water displacing agents and marine biocides.*

#### STAC System Advantages:

- *Easy Application*
- *Cost Efficient*
- *No V.O.C.*
- *Proven Long Life Service*
- *No Special Equipment necessary*
- *Minimal Surface Preparation*
- *Conforms to Irregular Surfaces*
- *Installs Underwater*



## 2.1 STACprime UW

A key component of the STAC System for the initial treatment of metal surfaces prior to wrapping; STACprime UW displaces surface moisture, passivates surface oxides, fills surface imperfections and ensures adhesion between STACwrap and the substrate. STACprime UW is a modified formulation of above-ground STACprime for application on wet surfaces and under water.

- *Composition: A unique blend of saturated petroleum hydrocarbons (petrolatum), inert fillers and corrosion inhibitors, and biocides. STACprime is free of acids, alkalis, waxes, resins and saponifiable and other deleterious matter.*
- *Characteristics: Non-drying and non-hardening. Impervious to water. Highly resistant to mineral acids, alkalis and salts. Non-toxic, non-flammable.*



## 2.1 STACfill

A putty-like compound used for filling badly pitted piling surfaces so that water is displaced and voids filled prior to being wrapped with STACwrap.

- *Composition: A unique blend of saturated petroleum hydrocarbons (petrolatum), inert fillers and reinforcing fibers.*
- *Characteristics: Non-hardening and self-supporting compound which accommodates vibration and mechanical stress. Highly resistant to mineral acids, alkalis and salts. Non-toxic, non-flammable.*

## 2.3 STACwrap Marine Tape

For long-life corrosion protection, sealing and waterproofing of under water and submerged metal surfaces. The high degree of conformability of STACwrap Marine Tape allows for spiral application over jetty piles or marine structures, resulting in a water resistant bond to metal surfaces, void of oxygen.

- *Composition: Non-woven, stitch-bonded, synthetic fabric carrier; fully saturated and coated with a neutral petrolatum compound blended with inert fillers, corrosion inhibitors and biocides.*
- *Characteristics: Stable in composition and plasticity over a wide temperature range. Non-hardening and non-cracking. Accommodates vibrations and extreme movement of the substrate. Highly resistant to mineral acids, alkalis and salts. High dielectric strength. Non-toxic, non-flammable.*



### 3. M2 Bolted HDPE Outercover - Mechanical Protection

To protect the STAC corrosion-proof barrier, the SPLASHpro M2 system utilizes an outer Jacket of HDPE for mechanical protection. Secured to the piling by Marine specified SS316 L stainless steel bolts, it is a tough, ultraviolet-resistant jacket that provides protection against abrasion, accidental impact and continuous wave action. The Jackets are installed under tension on-site using Central Products SS Hydraulic Clamps.

#### General Properties:

- *Highly ultra violet resistance*
- *Unaffected by seawater*
- *Excellent low temperature properties*
- *High impact strength*
- *Good abrasion resistance*
- *Non-stick surface*
- *Will Not Slide, gap, or loosen on the Piling*
- *Lightweight*



#### 3.1 Installation Preparation

##### Dimensions to consider when preparing for installation:

- *historical high, high tide:*
- *historical low, low tide:*
- *average high tide:*
- *average low tide:*
- *average tide:*
- *average difference:*

The total coverage area of each piling is recommended to be .6 m (2ft) above the average high tide and .6 m (2ft) below the average low tide. STACprime UW is recommended for a coverage of 0.9lbs/sqm (1lbs/20sq ft). STACwrap Marine tape is covered to 50% overlap to provide 2-layer coverage. For pilings 0.6 m diameter and above, Central Products recommends 6 or 12 inch (150 or 300mm) wide STACwrap Marine tape.



## 3.2 Installation Method

Our method for securing the HDPE Outercover consists of installing SS316 L stainless steel threaded bolts assembled in the following procedures: -

- *Wrap the Outercover around the pile over the wrapped tape. Overlap the Outercover so the longer edge piece passes the shorter edge piece.*
- *Line up the opposite bolt holes and temporarily hold the Outercover in place using a SS Hydraulic Clamp.*
- *Apply the appropriate pressure to the Hydraulic Clamps, monitoring the tension on the jacket, until the gap is closed.*
- *Fit the SS316 L bolt assembly in the sequence M10 long bolt, M10 washer, M10 bolt passing through opposite holes in flanges, then fit M10 washer and M10 Nut.*
- *Put all the bolt sets in place, then tighten the bolts in sequence (between the clamps) from the center of the Outercover, alternating above and below the center bolt.*
- *The recommended maximum torque of the bolting is 2.8 kg.M.*
- *On multi-Outercover system, the subsequent Outercover overlaps on top of the previous Outercover with the flanges lining-up vertically.*



BEFORE



AFTER

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- *ISO 9001:2008 certified by SGS, valid through August 13,2017 code:60089886-2*
- *Contact Central Products Engineers, Regional Offices, Distributors, and Agents for more information:*
- *Project Installation Lists*
- *Client Reference Letters*
- *Full Service Options*
- *Site Evaluations*
- *Installation Training and Supervision*

Central Products (Tianjin) Co., Ltd.  
B-H-E23 Houtai, ZhongBei Industrial Park  
XiQing District Tianjin, 300384, P.R.China  
Phone: +86-22-2379-3591 Fax: +86-22-2379-3595  
[www.centralproducts.com](http://www.centralproducts.com)