

# MULTI-COMPONENT COATINGS

Due to advances in the understanding of chemical technology and reactions, new types of 2 and 3 component paint products were introduced in the marine market, to enhance and improve the surface protection, specially under extreme conditions. Nevertheless such multi-component products require additional attention and in some cases extreme care, as will be explained below:

## **1st Checking the Paint Type**

Each components has its specified partnering component (e.g. a base product, together with a hardening product, or called “converter” in some cases). Normally, these multi-component materials are offered and supplied in a set. It is thus very important to check each set before mixing and application.

## **2nd Mixing**

All components should be carefully mixed according to the correct ratio or proportion. Hardeners or converters are usually added to the base material, and the mixture should be stirred using a mechanical stirrer until it becomes homogeneous. Should a multi-component product not mixed very well, the resulting mixture product will not perform as specified by the manufacturer, leading to paint film premature failure.

## **3rd Thinning**

Thinning is sometimes necessary to improve the workability of some multi-component paint products under different conditions. However it should be noted that excessive thinning over and above the allowed limit for any certain product, will surely lead to a noticeable change in it's film characteristics, resulting in degraded film properties and a performance failure. It is also to be noted that adding thinner to certain multi component paint products is strictly prohibited. Please consult the Data Sheet of each paint type separately.

## **4th Pot Life**

Once the paint is mixed, specially that of a multi component materials, the resulting mixture must be used within the specified pot life time limit. Normally, after the pot life has expired, the viscosity of the paint will gradually increase or provide insufficient cross-linking reaction. Please consult the Data Sheet of each multi-component product separately for the applicable pot life.

## **5th Overcoating Interval**

Due to chemical reactions in the paint coating, multi component materials can protect the substrate over an extended period. However, overcoating using multi-component materials tends to be more difficult, requiring additional care and attention to certain variables, depending mainly on the ambient conditions prevailing at the time of application. For more and detailed information about the overcoating time interval of each multi-component product, please consult the Data Sheet relating to each specified product.