 WILKO PAINT, INC	Paint System			
	Process Instruction C4	Ref: ISO12944-5	Rev. 1	Pg. 1 of 3

**Paint System Rating C4
Color TBD**

PURPOSE / LOCATION

TYPICAL APPLICATIONS	INTERIOR	EXTERIOR
C4	Chemical plants, water system (not immersion), coastal ship and boat yards	Industrial areas and coastal areas with moderate salinity

Table 1 – (ISO 12944-5/ ASTM 117B)

Test procedures for paint systems applied to ferrous and non-ferrous materials

Corrosivity Category as defined in ISO 12944-2	Durability ranges	ISO 2812-1 ¹ (chemical resistance) Hrs.	ISO 2812-2 (water immersion) Hrs.	ISO 6270 (water condensation) Hrs.	ISO 7253 (neutral salt spray) Hrs.	Standards Typical
C4	Low Medium High	- - -	- - -	120 240 480	240 480 720	750+

SURFACE PREPARATION, PRETREATMENT

PRETREATMENT:

Removal of oil, soil, lubrication greases, metal oxides, welding scales etc. is essential prior to any coating process. It can be done by a variety of chemical and mechanical methods. The selection of the method depends on the size and the material of the part to be coated, the type of soil to be removed and the performance requirement of the finished product. The most effective preparation methods include;

◆ Shot Blasting	◆ Chemical Cleaning Process	◆ Mechanical abrasion
◆ Grit Blasting	◆ Impact Needle Guns	◆ Flame Cleaning

Chemical pre-treatments involve the use of phosphates or chromates in submersion or spray application. These often occur in multiple stages and consist of [degreasing](#), etching, de-smutting, various rinses and the final [Phosphating](#) or [chromatins](#) of the substrate. The pre-treatment process both cleans and improves bonding to the metal.

Another method of preparing the surface prior to coating is known as abrasive blasting or [Sandblasting](#) and shot blasting. Blast media and blasting abrasives are used to provide surface texturing and preparation, etching, finishing, and degreasing for products. The most important properties to consider are chemical composition and density;



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particle shape and size; and impact resistance. See appropriate SSPC / NACE standard to insure material has been treat to meet the primer/paint suppliers Technical Data Sheet or TDS requirement to assure system is prepared properly.

Silicon carbide grit blast media is brittle, sharp, and suitable for grinding metals and low-tensile strength, non-metallic materials. Plastic media blast equipment uses plastic abrasives that are sensitive to substrates such as aluminum, but still suitable for de-coating and surface finishing. Sand blast media uses high-purity crystals that have low-metal content. Glass bead blast media contains glass beads of various sizes.

Cast steel shot or steel grit is used to clean and prepare the surface before coating. Shot blasting is a method of preparation and is highly efficient on steel parts.

Prime all exposed areas of metal with the appropriate primer. Allow to dry complete prior to wrapping or stacking. Prime or treat aluminum, steel or cast iron should be checked by supplier for any damaged coating prior to shipment to Baldor.


NOTE: All Primer coating shall be tested by Company looking at the marriage between the primed substrate to various top coats to assure proper Adhesion, Creepage, Abrasion & Blister ratings per appropriate ASTM or ISO standards to validate performance. Once approved, changes can only occur by submitting sample material per the Company's process requiring new samples submission.

SYSTEM C4 RATING

PRODUCT DESCRIPTION:

- A. A two component ambient temperature curing, non - isocyanate coating with outstanding exterior durability and color retention and fast dry time. Weathering characteristics are similar to those of acrylic urethanes. It is approved by USDA for incidental contact with food in federally inspected meat and poultry plants. It is made with ingredients that are approved for contact with Type VII food as listed under 21 CFR 175.300
- B. Minimum DFT for top coat is 2-3 mils over substrate
- C. Other surfaces included are E-Coat, Autophoretic, Powder Coat, MG1500Y02 and a wide variety of primer materials.
- D. To ensure performance greater than C4 it is recommended an additional clear coat of Polyurethane 1-2 mils be applied.

SYSTEM	PRIMER	PERFORMANCE CHARACTERISTICS
Industrial Grade Dirty/Heavy Duty Industrial/Marine/GP	Epoxy rich primer, E-Coat, Autophoretic, Powder Coat or Iron Phosphate	Bonds to mating surface allowing material to achieve ISO12944-5 (C3, C4 rating) with addition of top coats. (Salt Fog rating @ 750/1000)

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Optional Topcoats: Wilkofast, Wilkothane, Wilkopon		
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NOTE: all pretreat coating material and top coating materials shall be applied in accordance with the manufactures application instructions (TDS /PDS)

REPAIR PROCEDURE

REPAIR:

Damaged areas must be repaired using appropriate primer, sanding effected area and feather-edged. Always use a tack cloth to remove sanding dust and other contaminants before application of repair coat.

INSPECTION

INSPECTION:

The plant's Quality Team shall have designated inspectors to review the coating processes.