APPLICATION GUIDELINES

RAPID REPAIR EXTERIOR DECK SYSTEM

Intershield® 21

Revision 6

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1. SCOPE AND PURPOSE

The purpose of these guidelines is to ensure that the coating system, as applied, provides adequate protection against mechanical damage and corrosion.

Successful in-service performance of a deck coating system depends upon both the correct choice of coating and the adoption of the correct procedures for surface preparation and paint application.

The responsibilities for achieving the specific standards outlined and for carrying out surface preparation and paint application rest with the Contracting Company and Shipyard. Under no circumstances do these responsibilities rest with International Paint. If International Paint provide for the presence of a Technical Service Representative, their role is advisory only unless otherwise specified.

2. PRODUCT SPECIFICATION AND PRODUCT CURE GRAPHS

2.1 SURFACE PREPARATION

Repair

All surface preparation shall include at least 2-3 inches (50-75mm) up on all bulkheads, coamings, pipes and other vertical surfaces.

Paint only clean, dry surfaces. Remove all salts, grease, oil, soluble contaminants and other detrimental foreign matter by "solvent cleaning" (SSPC-SP1).

Re-skid: For maximum system performance, the complete removal of non-skid coating is recommended and may be accomplished by power tool (to SSPC-SP3 minimum)

Remove all dust and abrasive from the surface prior to coating. Coat before corrosion or contamination occurs. Care must be taken not to contaminate the properly prepared surfaces.

2.2 SPECIFICATION

2.2.1 Landing Areas

Product	Alternative	Dft (mils)			Dft (microns)		
		Spec	Min	Max	Spec	Min	Max
Intershield 21		N/A			N/A		

2.2.2 General Areas

Product	Alternative	Dft (mils)			Dft (microns)		
		Spec	Min	Max	Spec	Min	Max
Intershield 21		N/A			N/A		

2.3 NOTES

2.3.1 Intershield 21 is a non-skid coating and, as such, it is not possible to accurately measure wet film thickness. This product should therefore be applied to give the following coverage:

Intershield 21 (by roller): 20 - 30 sq.ft./gal (0.50 - 0.74 sq.m/litre)

It is vitally important to avoid over-application (see section 5.7).

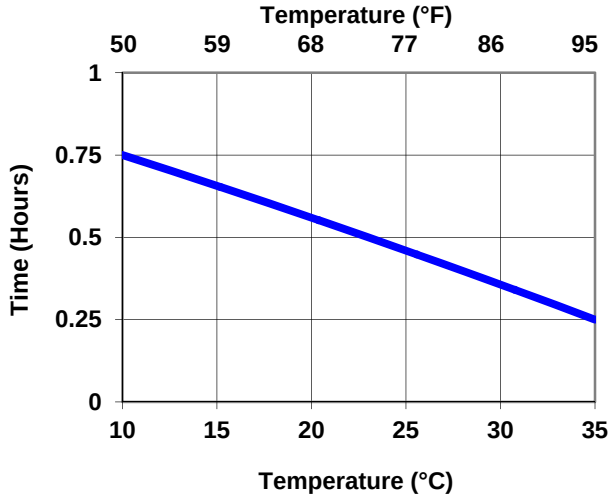
2.3.2 Refer to the accompanying graphs for recommended overcoating intervals, pot life and curing requirements.

2.3.3 The drying times quoted refer to a single coat applied to give the required dry film thickness (ie at the specified spreading rate). At higher film thicknesses drying times may be extended, particularly at low temperatures.

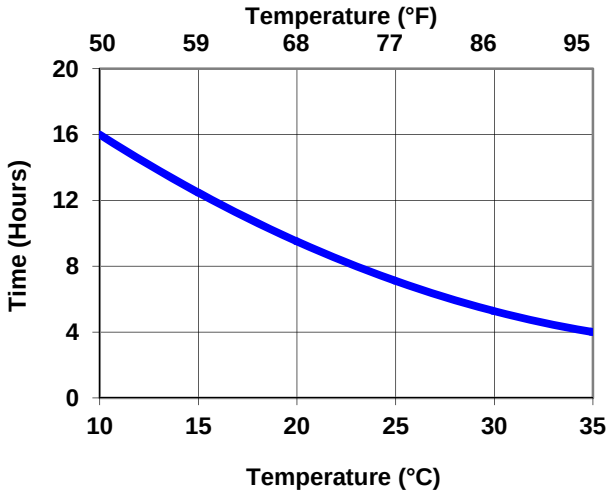
2.3.4 For the application of Intershield 21, the deck temperature must not be lower than 50°F (10°C) or exceed 110°F (43°C). For maximum performance, the curing temperature should be above 50°F (10°C).

2.4 PRODUCT CURE GRAPHS

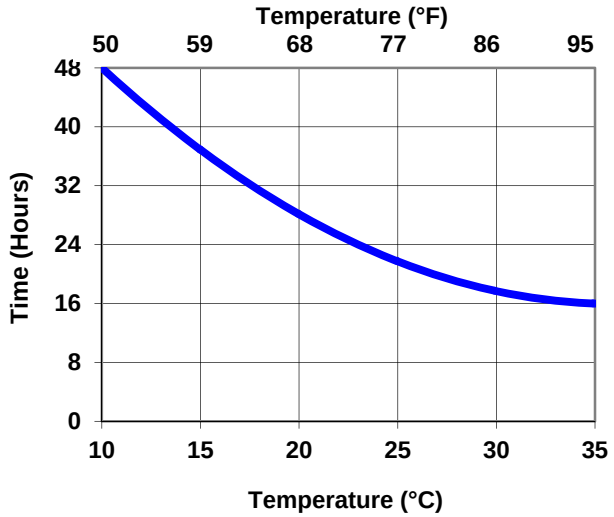
INTERSHIELD 21: Pot Life



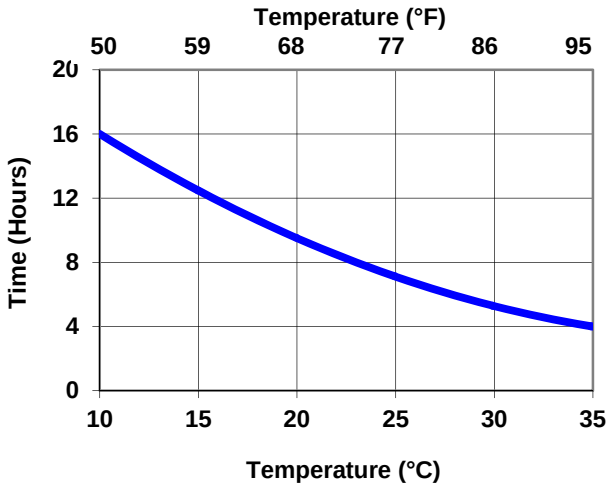
INTERSHIELD 21: Hard Dry Time



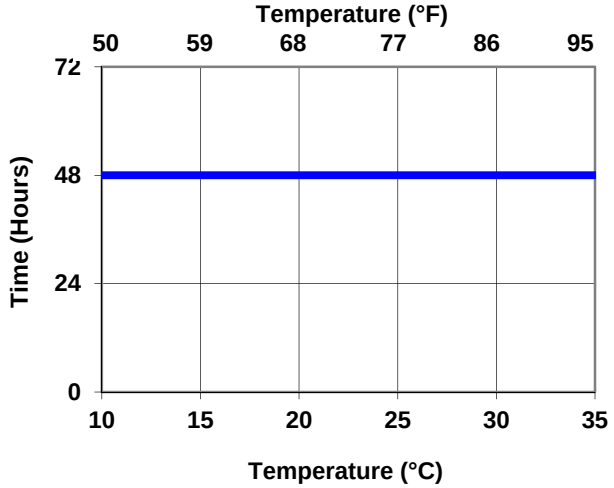
INTERSHIELD 21: Dry to Service



INTERSHIELD 21: Minimum Overcoating Time with Interthane 990



INTERSHIELD 21: Maximum Overcoating Time with Interthane 990



3. COATING APPLICATION PROCEDURES

REPAIR

3.1 Prepare the surface to be repaired according to the guidelines given in section 2.1 of this procedure.

3.2 When the area to be repaired is clean and dry, apply a full coat of Intershield 21 to the specified film thickness. See section 4.7 for application method. **Note that thick, carelessly applied coats will result in minimum coverage and be subject to mud-cracking and/or blistering**.

3.3 When hard dry, inspect the surface profile of the applied coating.

3.4 Ensure that the completed deck area is kept free of all traffic until the coated areas have cured.

4. GENERAL NOTES

4.1 DECK CONDITION

Repair

Prior to the commencement of surface preparation it is essential that the deck is clean, dry, and in a condition suitable for surface preparation and application of the deck coating. The following briefly outlines the minimum requirements:

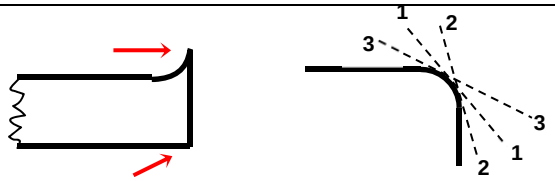
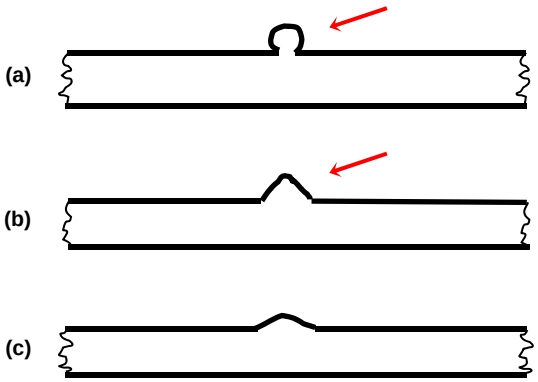
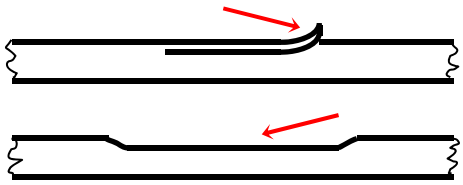
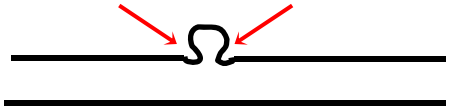
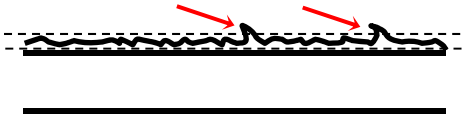
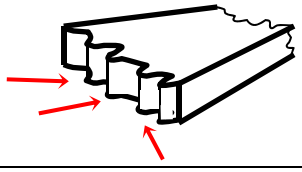
Heavy scale must be removed from all surfaces.

All grease and oil must be removed from all surfaces.

Any areas of steel renewal should be prepared in the manner described in 4.2 Steelwork Preparation.

4.2 STEELWORK PREPARATION

Preparation grades of welds, cut edges and surface imperfections are described in ISO 8501-3. The required grade, in order to provide surfaces which will ensure optimum paint performance, is P3 of this standard. Recommendations of the methods of achieving the minimum levels of preparation that must be carried out on any new steelwork are as follows:

ITEM	PROBLEM / SOLUTION
Sharp Edge	**Remove sharp edges or gas cutting edges with grinder or disc sander:** 
Weld Spatter	**1. Remove spatter observed before blasting by grinder, chipping hammer etc.** **2. For spatter observed after blasting:** **a) Remove with chipping hammer /scraper etc.** **b) Where spatter is sharp, use disc sander or grinder until obtuse** **c) Obtuse spatter – no treatment required** 
Plate Lamination	**Any lamination to be removed by grinder or disc sander** 
Undercut	**Where undercut is to a depth exceeding 1mm and a width smaller than the depth, repair by welding or grinding may be necessary** 
Manual Weld	**For welding bead with surface irregularity or with excessive sharp edges, remove by disc sander or grinder** 
Gas Cut Surface	**For surfaces of excessive irregularity, remove by disc sander or grinder** 

4.3 STORAGE (AT POINT OF APPLICATION)

The paint must be stored out of direct sunlight so that the temperature of the material will not exceed 100°F (38°C) for prolonged periods of time.

In winter months, when temperatures can be expected to fall below 50°F (10°C), base and curing agent must be stored in premises, (storeroom, hut, etc), which are heated to a temperature of 70-80°F (21-27°C) for a period of not less than 24 hours immediately prior to use (unless stated otherwise on the product technical data sheet).

4.4 CLEANING

Prior to surface preparation inspection all traces of debris should be removed.

Any substandard areas should be identified and must be brought up to the specified standard.

Final approval of a substrate for coating application must be confirmed after final cleaning.

It is recommended that all personnel working on the prepared decks wear overshoes.

4.5 PAINT APPLICATION

Efficient mechanical stirrers for the correct mixing of paint must be used.

This product must be applied with a long handled paint roller equipped with a smooth phenolic core roller cover. It is recommended that rollering should take place in one direction, with approximately 3 inches (7.5 cm) overlap onto the previously applied adjacent strip. Apply firm downward pressure on the roller during application. When applying over welds, roll across the welds, not along them, in both directions to ensure even coverage. For flight decks, any ridges should run bow to stern such that aircraft tyres run along the ridges and avoid contact with pooled water or spilled lubricants.

When the coating has been properly applied, the surface profile will present a uniformly rough appearance over the entire surface. There will be no loosely bound clumps of particles. The surface profile will show a pattern of hard raised peaks or ridges similar to a 'plowed-field'. The peaks of the ridges will be about 0.5-1.0 inch (12.5 – 25.0mm) apart and approximately 1/16 to 3/32 inch (1.5 – 2.4 mm) high. The non-skid coating, at its thinnest point, should be at least 30 mils (762 microns) dry film thickness. It is not possible to check either wet or dry film thickness of this material due to its uneven surface. An even thickness can be obtained using volume area control. Consult International Paint.

Intershield 21 must be applied in a tight, thin coat to provide the resiliency required. **Thick, carelessly applied coats will result in minimum coverage and be subject to mud-cracking and/or blistering.**

5. HEALTH & SAFETY

5.1 INTRODUCTION

Some coatings contain volatile flammable organic solvents which can form explosive mixtures with air. Definite safety precautions must be taken whilst applying this type of coating. Detailed attention must be given to the following points:

- Danger of explosion or fire.
- Provision of a suitable breathing environment for workers.
- Prevention of skin irritation problems.

5.2 DANGER OF EXPLOSION OR FIRE

The key factor in preventing an explosion or fire, when considering the application of coatings in open air is elimination of naked flames, sparks and any ignition sources.

Welding, cutting or grinding in the vicinity of paint application should be forbidden until paint fumes are totally dispersed.

Smoking must be prohibited in the vicinity of paint application.

Airless spray equipment must be earthed (because of the danger of static electricity build-up).

Mobile telephones and electrical cameras must not be used in the vicinity of paint application until paint fumes are totally dispersed.

5.3 SOLVENT VAPOUR AND PAINT MISTS - PROTECTION OF PAINTING PERSONNEL

Painters must wear protective clothing, e.g. overalls, gloves, and suitable footwear of non-spark type.

5.4 SKIN IRRITATION

If the correct protective clothing has been worn, e.g. overalls, gloves, air fed hood etc, no discomfort should be experienced from skin irritation. Any small areas not protected by clothing, e.g. wrists or neck, can be treated with a non-greasy barrier cream. (Petroleum jelly is not recommended as this can assist the transport of solvents into the skin).

Any areas of skin accidentally contaminated with paint must be thoroughly washed with soap and water. A skin conditioner that is designed to replace the natural oils in the skin can be used.

Note

1. The preceding safety information is given for guidance only.

2. It is imperative that, prior to the commencement of any hold coating project, local Regulations regarding Health and Safety be consulted.

3. Consult the relevant Product Health & Safety Data Sheets prior to use.

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