

## **APPLICATION GUIDELINES**

## **EXTERIOR DECK SYSTEM**

**Intershield® 5150LWT**

**Revision 4**

**Issue Date: 20<sup>th</sup> October 2017**

### **Marine Coatings**

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# Application Guidelines Intershield® 5150LWT

Revision 4 Date 20<sup>th</sup> October 2017



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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

#### 2.1.1 New Installation

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).

**Steel:** For optimum performance blast to ISO Standard 8501-1 (2007) - Sa2<sup>1/2</sup>. The equivalent in the USA is “Near White Blast Cleaning” (SSPC-SP10).

Alternatively, water jet to International Paint Hydroblasting Standard HB2<sup>1/2</sup> with flash rusting no worse than HB2<sup>1/2</sup>L. See Section 5.5 for equivalent Water Jetting standards.

A minimum surface profile of 3 mils (75 microns) is required.

**Aluminum:** For aluminum and light alloys the surface should be solvent cleaned according to SSPC-SP1 then physically etched by abrasive blasting using a non-metallic abrasive.

For inaccessible areas, or areas where blasting is impractical, power tool clean to ISO Standard 8501-1 (2007) - St3 (SSPC-SP11) as specified.

#### 2.1.2 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).

**Reskid (over Intershield 456, Intershield 300HS or Intergard 264) For other primers contact your local International paint representative).** For maximum system performance, the complete removal of nonskid coating from Intershield 456 or Intergard 264 is recommended and may be accomplished by sanding, grinding, abrasive blasting or water jetting.

For fibreglass or wooden substrates please consult International Paint.

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 - US NAVY APPLICATIONS

### 2.2.1 Landing Areas

Product	Alternative	Dft (mils)			Dft (microns)		
		Spec	Min	Max	Spec	Min	Max
Intershield 456	Intergard 264	5	4	7	125	100	175
Intershield 5150LWT		N/A			N/A		

### 2.2.2 General Areas

Product	Alternative	Dft (mils)			Dft (microns)		
		Spec	Min	Max	Spec	Min	Max
Intershield 456	Intergard 264	5	4	7	125	100	175
Intershield 5150LWT		N/A			N/A		

## 2.3 SPECIFICATION - COMMERCIAL APPLICATIONS

Product	Alternative	Dft (mils)			Dft (microns)		
		Spec	Min	Max	Spec	Min	Max
Intershield 300HS	Intergard 264	5	4	7	125	100	175
Intershield 5150LWT		N/A			N/A		

## 2.4 NOTES

2.4.1 Intershield 5150LWT is a non-skid coatings and, as such, it is not possible to accurately measure wet film thickness. These products should therefore be applied to give the following coverage:

Intershield 5150LWT (by Phenolic Core roller): 20 - 30 sq.ft./gal (0.50 - 0.74 sq.m/litre)  
 Intershield 5150LWT (by Spray Application): 40 - 60 sq.ft./gal (1.00 - 1.48 sq.m/litre)

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

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

2.4.3 The drying times quoted refer to a single coat applied to give the specified dry film thickness in the table above. At higher film thicknesses drying times may be extended, particularly at low temperatures.

2.4.4 All thicknesses are to be checked by the Contractor Quality Control Department and by the International Paint Technical Service Representative (if present) on site. Any substandard areas are to be rectified.

2.4.5 For the application of Intershield 456, Intershield 300HS or Intergard 264 the steel temperature must not be lower than 40°F (10°C) or exceed 120°F (49°C). For the application of Intershield 5150LWT, the deck temperature must not be lower than 40°F (10°C) or exceed 110°F (43°C). For maximum performance, the curing temperature should be above 50°F (10°C).

2.4.6 Interthane 990, Interthane 990HS, or Interthane 990V may be used for colour marking purposes.

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# Application Guidelines Intershield® 5150LWT

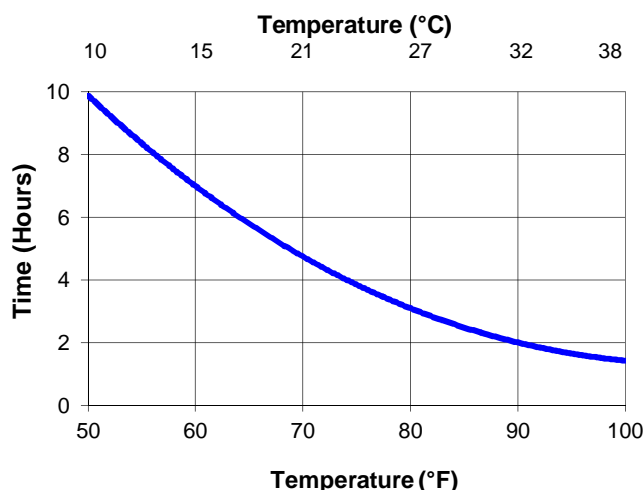
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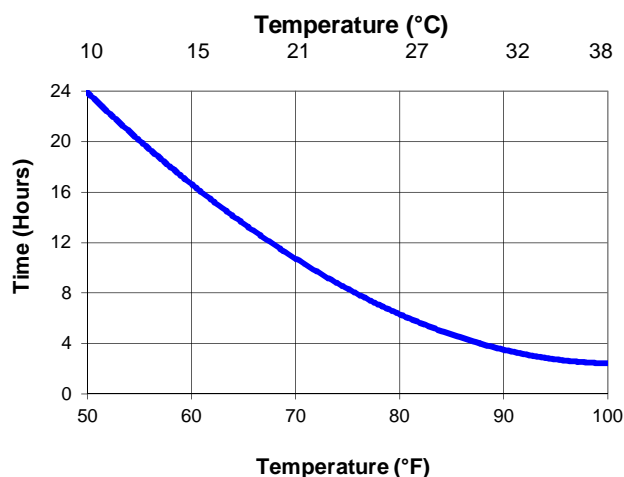
## 2.5 PRODUCT CURE GRAPHS

- 2.5.1 Pot Life
- 2.5.2 Touch Dry Times
- 2.5.3 Hard Dry Times
- 2.5.4 Minimum Overcoating Intervals
- 2.5.5 Maximum Overcoating Intervals

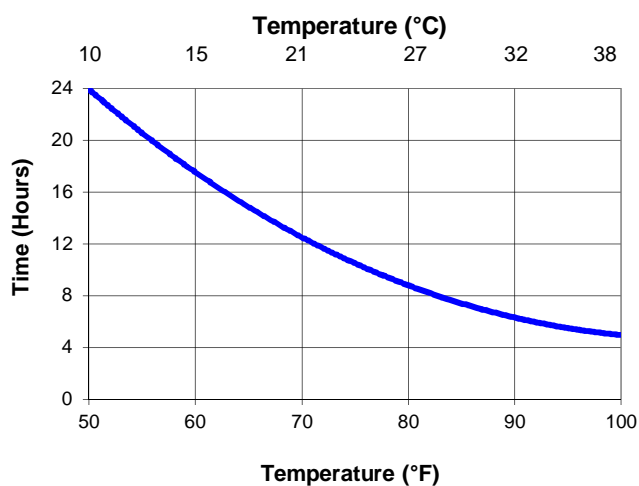
### Intergard 264: Touch Dry



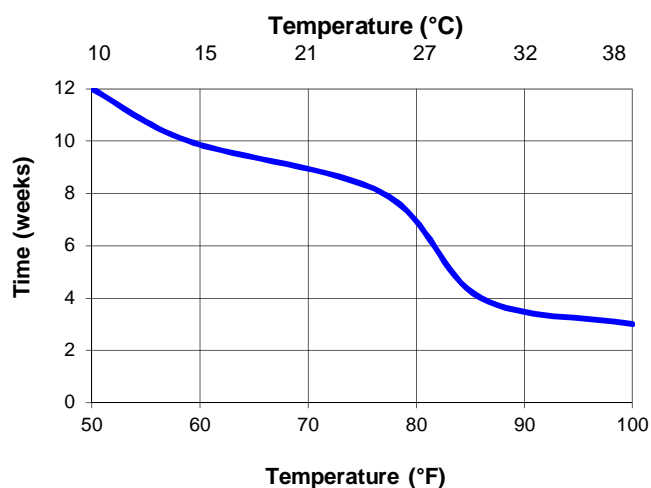
### Intergard 264: Hard Dry



### Intergard 264: Minimum Overcoating with Intershield 5150LWT



### Intergard 264: Maximum Overcoating with Intershield 5150LWT



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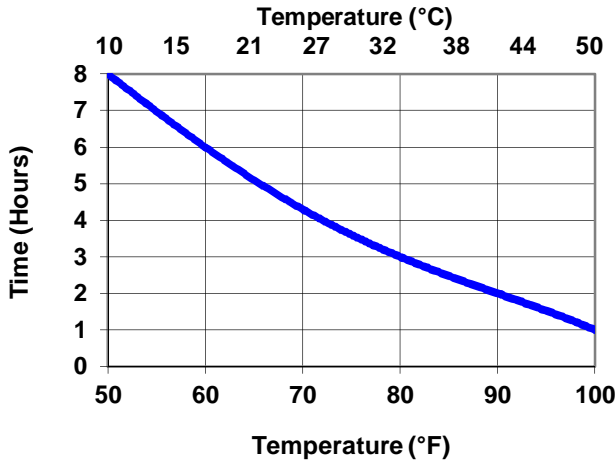
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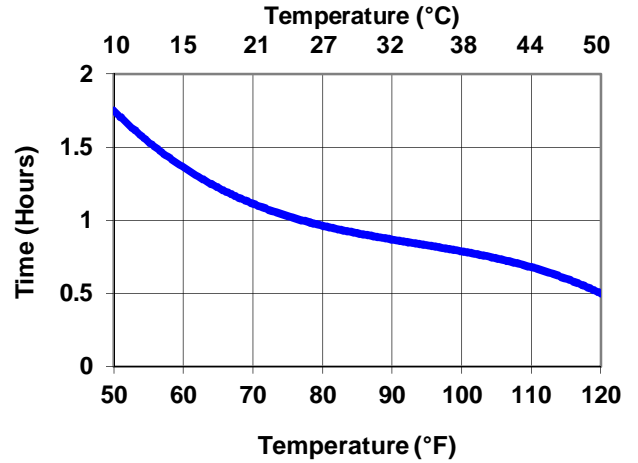
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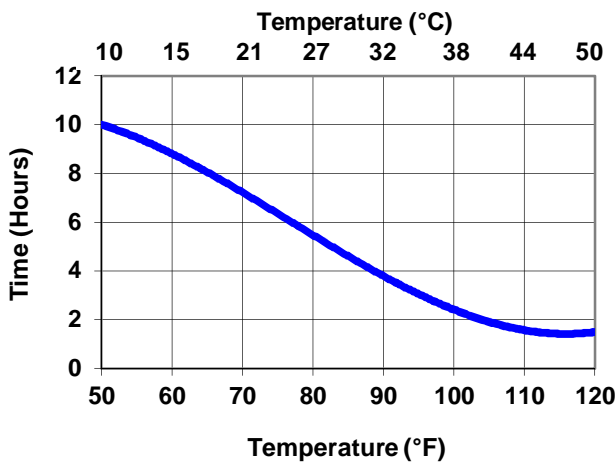
## Intergard 264: Pot Life



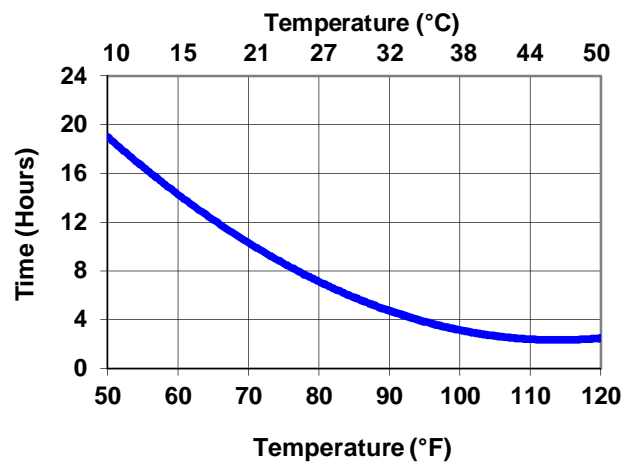
## INTERSHIELD 456: Pot Life



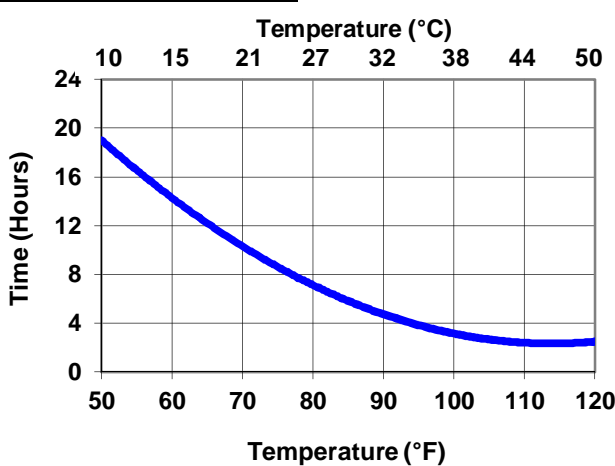
## INTERSHIELD 456: Touch Dry Time



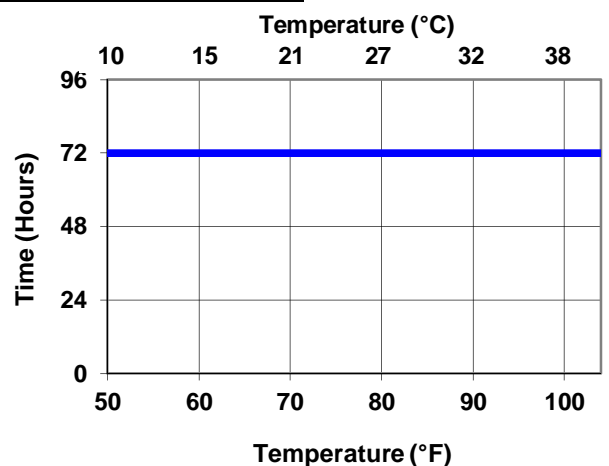
## INTERSHIELD 456: Hard Dry Time



## INTERSHIELD 456: Minimum Overcoating Time with Intershield 5150LWT



## INTERSHIELD 456: Maximum Overcoating Time with Intershield 5150LWT



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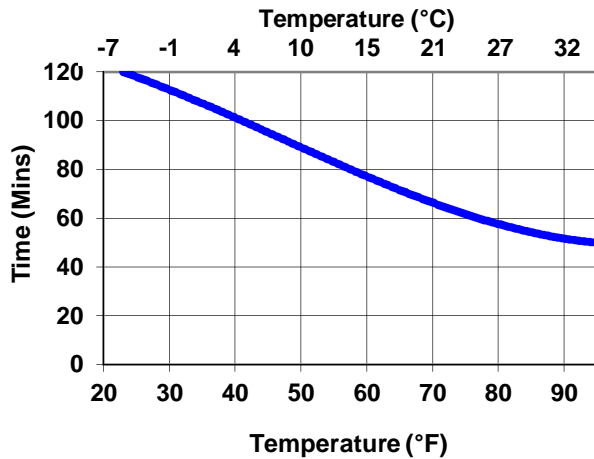


# Application Guidelines Intershield® 5150LWT

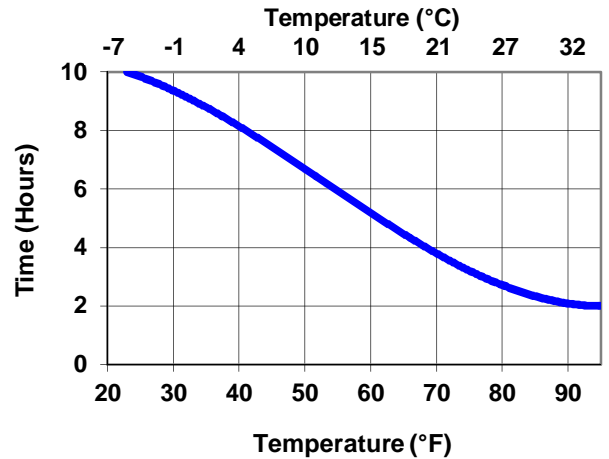
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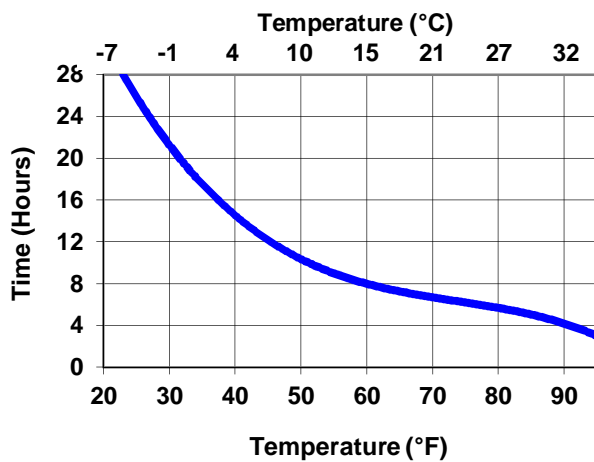
## INTERSHIELD 300HS: Pot Life



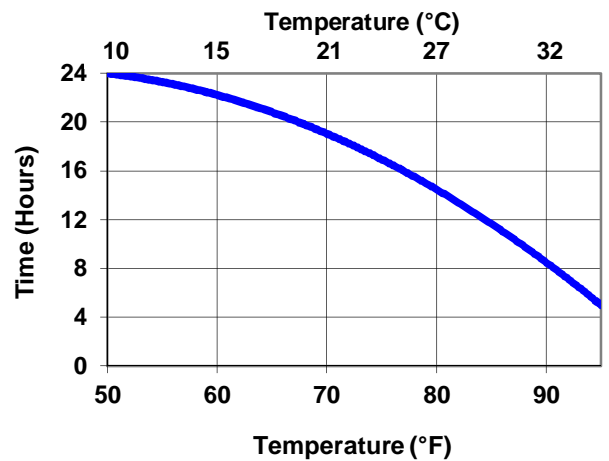
## INTERSHIELD 300HS: Touch Dry Time



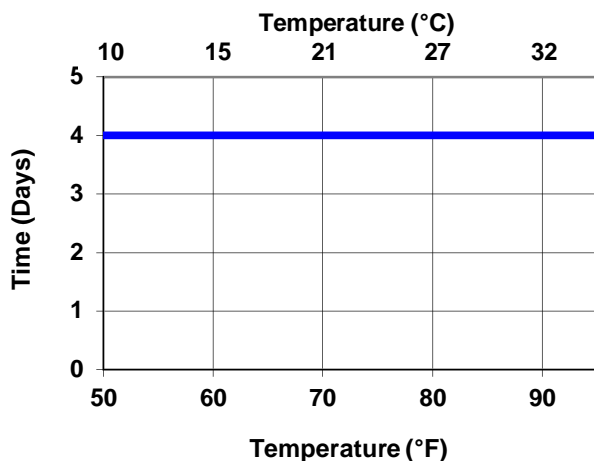
## INTERSHIELD 300HS: Hard Dry Time



## INTERSHIELD 300HS: Minimum Overcoating Time with Intershield 5150LWT



## INTERSHIELD 300HS: Maximum Overcoating Time with Intershield 5150LWT



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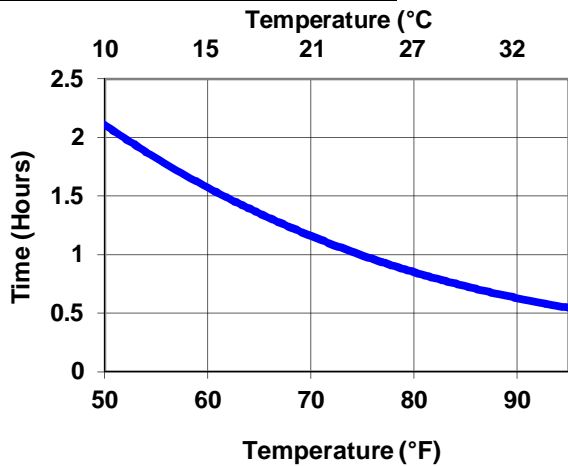


# Application Guidelines Intershield® 5150LWT

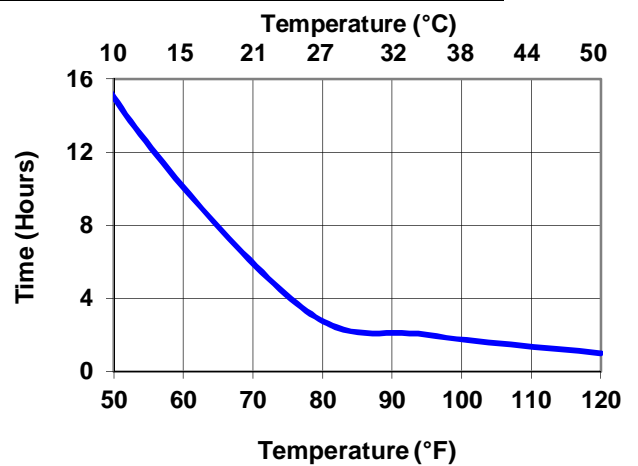
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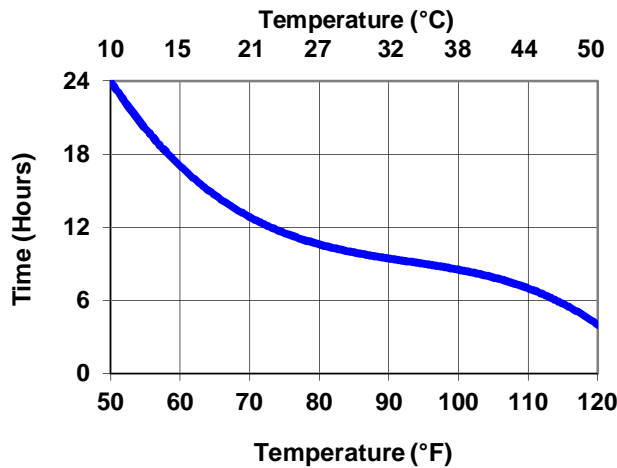
## INTERSHIELD 5150LWT: Pot Life



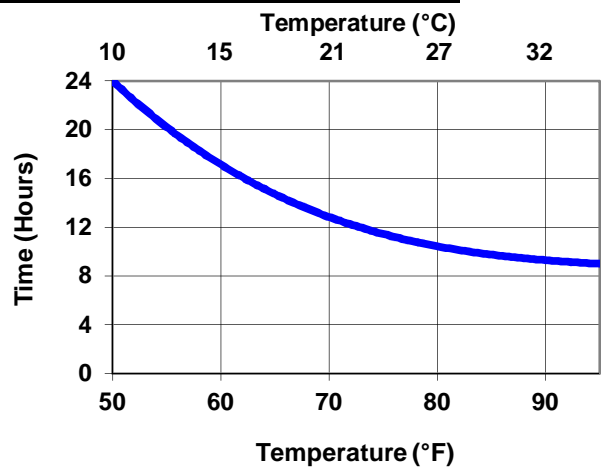
## INTERSHIELD 5150LWT: Touch Dry Time



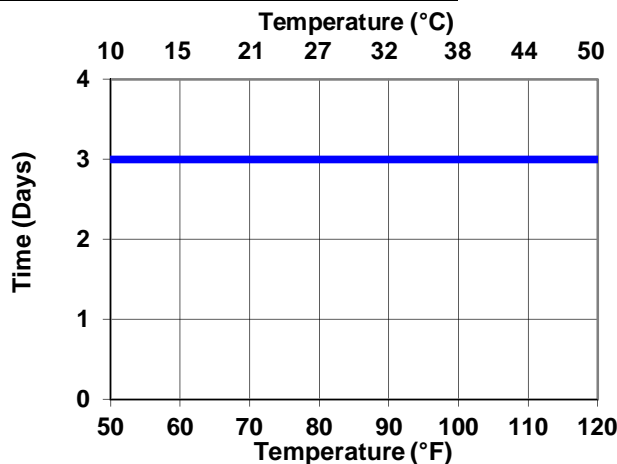
## INTERSHIELD 5150LWT: Hard Dry Time



## INTERSHIELD 5150LWT: Minimum Overcoating Time with Interthane 990/990HS/990V



## INTERSHIELD 5150LWT: Maximum Overcoating Time with Interthane 990/990HS/990V



**NOTICE:**  
Exposure to moisture, condensation and/or water prior to sufficient curing may cause whitening or uneven patchy appearance on the surface of the non-skid

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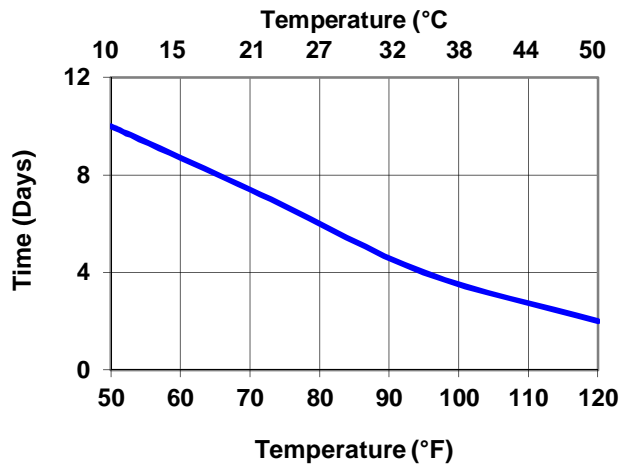
# Application Guidelines

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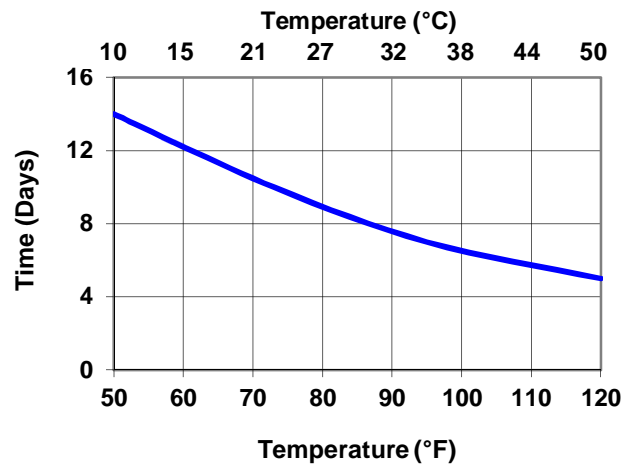
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### INTERSHIELD 5150LWT: Time to Service Heavy Duty/High frequency vehicle traffic



### INTERSHIELD 5150LWT: Time to Service Aviation activity



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## 3. COATING APPLICATION PROCEDURES

### 3.1 NEW INSTALLATION

- 3.1.1 Prepare all surfaces to be coated to the standard detailed in section 2.1 of this procedure.
- 3.1.2 Upon completion of the surface preparation, and after inspection by the Contractor Quality Control Department, the International Paint Technical Service Representative (if present) will also inspect the whole area and mark up any substandard areas.
- 3.1.3 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.
- 3.1.4 Thoroughly mask any areas to which the Intershield Exterior Deck System is not to be applied, e.g. hatches and deck drains.
- 3.1.5 Apply a stripe coat of Approved Primer to weld seams to the specified film thickness.
- 3.1.6 Apply a full coat of Approved Primer to the specified film thickness. Apply up 2-3 inches (50-75mm) on all vertical surfaces. When applying over a stripe coat, full coat may be applied while the stripe coat is still tacky.
- 3.1.7 Allow to dry for 12-24 hours (depending upon temperature – see Minimum Overcoating time graph in section 2.4) before inspecting the applied coating and checking the dry film thickness.
- 3.1.8 Apply a full coat of Intershield 5150LWT at the specified coverage rate. See section 5.7 for application method. **Note that thick, carelessly applied coats will result in minimum coverage and be subject to mud-cracking and/or blistering.**
- 3.1.9 When hard dry, inspect the surface profile of the applied coating.
- 3.1.10 Once the full system has been applied, and has been accepted by the Contractor Quality Control Department, the International Paint Technical Service Representative (if present) will check the dry film.
- 3.1.11 Ensure that the completed deck area is kept free of all traffic until the coated areas have fully cured.
- 3.1.12 Remove all masking.

### 3.2 REPAIR

- 3.2.1 Prepare the surface to be repaired according to the guidelines given in section 2.1 (Re-skid over Approved Primer of this procedure).
- 3.2.2 When the area to be repaired is clean and dry, apply a full coat of Intershield 5150LWT to the specified film thickness. See section 5.7 for application method. **Note that thick, carelessly applied coats will result in minimum coverage and be subject to mud-cracking and/or blistering.**
- 3.2.3 To complete repairs, continue to 3.1.9 of the **New Installation** application procedure.

## 4. TECHNICAL INSPECTION AND PROJECT CONTROL

Project control by regular inspection and agreement on future action is vital to successful Intershield deck coating projects, and in maximising the potential of a coating system.

All parties involved in the deck coating work must agree an inspection procedure prior to work commencing, this should outline how and when both work and inspection will be undertaken.

Prior to commencing the project the contractor(s) must be provided with copies of the relevant product data sheets. Attention should be drawn to pack sizes, mix ratios, thinning restrictions etc.

The International Paint Technical Service Representative (if present) should supervise initial mixing of the first drums of product to be applied to ensure that all parties are aware of mixing and application characteristics.

Daily meetings should be arranged to confirm performance of the work and inspection schedules, minutes of these meetings must be taken and circulated to all participants. Representatives of the contractor, shipyard and ship owner would normally be present at these meetings.

In the event of work continuing at any stage without the approval of International Paint, the Company cannot be held responsible for any subsequent failure of the deck coating system on the areas concerned. Such an event is termed an EXCEPTION. All parties MUST be officially informed in writing using the standard Exception Report Form immediately following the occurrence.

International Paint, and any other authorised personnel, may inspect any stage in the process.

Contractors must supply interpreters if necessary.

On completion of the project all relevant documentation must be retained, and safely archived, by the Local Technical Service Manager.

Inspection equipment for measurement of profile depth, humidity, wet and dry film thickness, etc should be of approved types and should be within calibration limits.

Note: When measuring the dry film thickness of coatings, the DFT gauge must be calibrated prior to use and measurements made in accordance with ISO 2808:200, unless regulations dictate that an alternative standard should be used.

## 5. GENERAL NOTES

### 5.1 DECK CONDITION

#### 5.1.1 New Installation

Prior to commencement of gritblasting or water jetting 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:

All grease and oil must be removed from all surfaces.

Defective steelwork, prior to project commencement, should be repaired in line with the guidance notes given in 5.2 (Steelwork Preparation).

#### 5.1.2 Repair

Prior to the commencement of blasting 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 5.2 Steelwork Preparation.

#### 5.1.3 Ventilation for Use with Enclosures

Ventilation is necessary during abrasive blasting operations to ensure adequate visibility for personnel engaged in blasting activities. When flexible ducting/trunk is used it should be arranged to allow the point of extraction to be reasonably close to the personnel carrying out the blasting activities to achieve adequate visibility.

During and after coating application the ventilation system and ducting/trunk must be arranged to prevent “dead spaces or dead spots” anywhere in the work area (enclosure), and should generate good cross ventilation airflow across the work surface. As solvent vapors are heavier than air, and will tend to accumulate in the lower areas of the work area (enclosure), thus it is important that they are extracted. This must also be balanced with fresh air being introduced into the work area (enclosure). Equipment used must not re-introduce abrasive dust, solvent vapor, etc. into the work area (enclosure). For this reason a positive pressure, above normal atmospheric pressure, should be maintained inside the work area (enclosure). As a “rule of thumb” fresh air supply/extraction should be in the approximate ratio of 4:3. Ventilation must be maintained during application and continue whilst solvent is released from the paint film during drying. Failure to do this may result in solvent retention within the coating system that will adversely affect its long term performance. It must be maintained for a minimum period of 48 hours after coating application has been completed unless otherwise agreed with International Paint.

The level of ventilation employed must take account of the Lower Explosive Limit (LEL) of the product being applied and comply with local legislative requirements. (The LEL is the minimum concentration of vapor in air, expressed as a percentage, that will ignite). International Paint recommend that this is such that vapor concentrations do not exceed 10% of the LEL measured at deck level. This figure is in line with general industry standards and the requirements of the United Kingdom Health & Safety Executive (Information Document HSE

# Application Guidelines

## Intershield® 5150LWT

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703/13 "Application of Surface Coatings to Ship's Tanks") and the United States Department of Labor Occupational Safety and Health Administration (OSHA) regulation 1915.36(a)(2).

The ventilation requirement can be calculated from the required air quantity (RAQ) to 10% of the LEL figures and the product application rate. A typical paint application rate by airless spray is 75-100 litres (19.7-26.3 U.S. Gallons) per hour per sprayer.

Care should be taken when setting up ventilation/extraction systems, to ensure that 10% figure is not exceeded.

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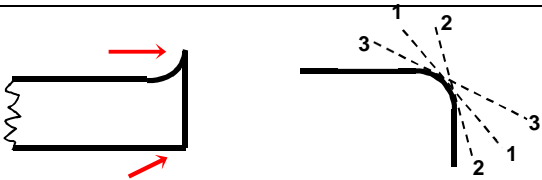
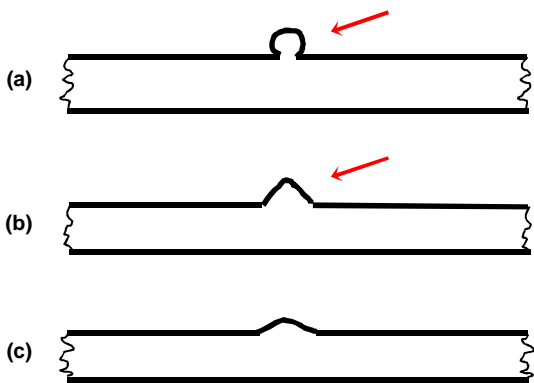
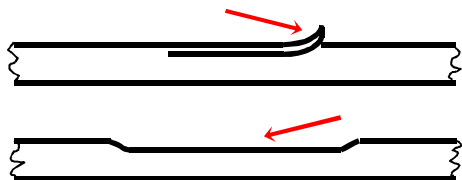
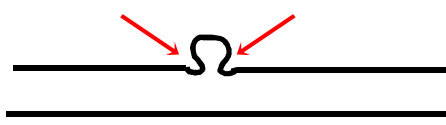
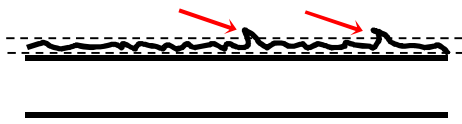
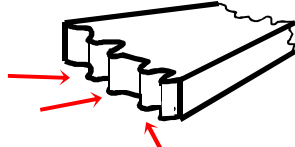
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## 5.2 STEELWORK PREPARATION

Preparation grades of welds, cut edges and surface imperfections are described in ISO 8501-3. Preparation to P3 grade of this standard will provide surfaces which will ensure optimum paint performance. International Paint recommend the following methods and minimum levels of preparation on any new steelwork:

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

### 5.3 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 in excess of 50°F (10°C) for a period of not less than 48 hours immediately prior to use (unless stated otherwise on the product technical data sheet).

### 5.4 GRIT BLASTING

#### 5.4.1 General

Two main universal standards of surface preparation are normally specified for deck coatings - ISO Standard ISO 8501-1 (2007) - Sa2 and Sa2½.

In general, the following comments apply to these standards.

Sa2 - the resulting steel surface should be free from most of the rust, old coating and foreign matter. Any residual old coating should be firmly adhering

Sa2½ - in practice, this is considered to be the best standard a skilled blasting operative can consistently achieve.

#### Comparative Standards

<u>ISO 8501-1: 2007</u>	<u>Japanese Standard on new steel</u>	<u>SSPC Standard</u>
Sa2	Not applicable	SSPC-SP6
Sa2½	JA SH2	SSPC-SP10

In cases where the substrate is corroded or pitted, it may be necessary to fresh water wash the areas after abrasive blasting, then re-blast, in order to ensure complete removal of soluble corrosion products.

#### 5.4.2 Compressed Air

Air used for blasting must be clean, oil free and dry. The pressure should be at least 7kg/cm<sup>2</sup> (100lb/sq inch) at the nozzle.

#### 5.4.3 Abrasive

Abrasives used for blasting must be dry and free from dirt, oil, grease and suitable for producing the standard of cleanliness and profile specified. The abrasive must therefore be in accordance with the specifications given in ISO 11126 - Parts 1 to 8 and each delivery should carry a certificate of conformity to this specification.

If blasting abrasive is supplied on site without a certificate of conformity, the material should be tested by the yard or contractor in accordance with the methods given in ISO 11127 - Parts 1 to 7.

Particular attention should be given to ISO 11127 - Part 6, where the level of water soluble contaminants must not give a conductivity value greater than 25mS/m, and ISO 11127 - Part 7, where the level of water soluble chlorides must not exceed 0.0025% by weight.



ASTM D4940-89(94) also provides a method for quantifying the level of water-soluble ionic contaminants. This standard does not provide limits of acceptability for blasting abrasive but does give a typical value for a low level of contamination as 50 µmho/cm.

Iron or steel abrasives can be used for in-situ open blasting. Specifications for metallic abrasives are given in ISO 11124 - Parts 1 to 4 and the corresponding test methods in ISO 11125 - Parts 1 to 7. If used, careful and thorough cleaning must be carried out at all stages of the operation to ensure that no abrasive remains on the deck as this may subsequently corrode.

Although not recommended, recycled grit may be used providing it is dry, has been shown to be free from contamination by dirt, oil, grease, and has been tested in accordance with the above ISO standards.

#### 5.4.4 **Blast Profile**

The amplitude of the blast profile depends upon the type of coating to be applied, measurement on site should be by profile gauge or other instruments mutually acceptable.

Measurement of surface profile using comparators is described in ISO 8503-2. The comparators themselves are described in ISO 8503-1. A medium 'G' type comparator should be used and a value of 75-112 microns (3.0-4.5 mils) is acceptable when measured by:

- a) ISO 8503-3: Focusing microscope
- b) ISO 8503-4: Stylus

When using a needle gauge such as the Elcometer 123, a value of 100 microns (3.94 mils), taking a maximum of 10 determinations, is ideal.

For projects taking place in the USA:

- Measurement of surface profile using comparators is described in ASTM D4417 Method A
- Measurement of surface profile using a needle gauge is described in ASTM D4417 Method B
- Measurement of surface profile using replica tape is described in ASTM D4417 Method C and NACE RP0287-91

## 5.5 WATER JETTING (HYDROBLASTING)

Only fresh water is to be used for water jetting. Salt water is unacceptable for substrate preparation. Chemical corrosion inhibitors must **not** be added to blasting water. See note 5.6 of the International Paint Hydroblasting Standards. In order to achieve acceptable residual salt levels, water of a conductivity of no greater than 400 microSiemens should be used.

All areas are to be water jetted to a minimum standard of HB2½ 'Very Thorough Hydroblast Cleaning' from International Paint Hydroblasting Standards. This states:

"When viewed without magnification, the surface shall be free from visible oil, grease, dirt and from most of the rust, paint coatings and foreign matter. Any remaining contamination and staining shall be firmly adhered. See notes 5.9 and 5.10".

A test area will be water jetted before the main tank, and inspected before flash rusting has occurred; see note 5.3 of the International Paint Hydroblasting Standards. Agreement will be reached by the Owner's representative, the International Paint representative (if present) and the Contractor's representative on the agreed standard before the main tank area is water jetted.

For areas difficult to water jet, it is advisable to mechanically clean to St3 standard of ISO 8501-1 (2007) (SSPC-SP11) after water jetting.

Rust, scale and old paint debris must be removed from the deck prior to inspection and mark up by the Contractor's Quality Control Department. The International Paint representative (if present) will then inspect the whole area and mark up any substandard areas.

All marked areas shall be rejetted and brought up to the required standard.

If flash rusting is too heavy, it can be removed by high-pressure washing. Upon drying, the surface must have an acceptable level of flash rusting for overcoating. See note 5.7 from the International Paint Hydroblasting Standards.

### Comparative Standards

<u>International Paint Hydroblasting Standard</u>	<u>ISO 8501-4 (2006)</u>	<u>NACE No. 5/ SSPC-SP 12</u>
HB2	Wa2	WJ-3
HB2½	Wa2½	WJ-2

Three flash rust grades, designated L, M, and H are specified in each of the above standards.

## 5.6 CLEANING

Prior to initial blasting inspection, the bulk of spent grit (and old paint debris if applicable) must be removed from the deck area to be coated. When preparing surfaces by other means, e.g. water jetting, all traces of debris should be removed.

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

All marking paint, chalk, etc, used to identify substandard areas must be removed after substandard areas are rectified. If marking pens are used which cannot be removed then they must be technically approved by Worldwide Marine Laboratories prior to any overcoating taking place.

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.

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### 5.7 MIXING OF NON-SKID

**SPECIAL INSTRUCTIONS:** Use intrinsically safe equipment. Use a high torque drill suitable for mixing heavy materials in 6 gallon pails. A jiffy blade or vortex paddle suitable for 6 gallon containers should be used to achieve a uniform well mixed material. Pre-mix Part A for 2 minutes. Pour Part B into Part A and mix the material for 4-5 minutes making sure to scrape the sides of the pail. While mixing, the mixing blade should be moved up, down and around the can to thoroughly mix the material to achieve a uniform and well mixed nonskid.

Or

#### **Pentech ICM2000 Industrial Coatings Mixer**

Developed to mix MIL-SPEC nonskid deck coatings, Pentech's ICM2000 has the power to completely mix thick coatings containing abrasive materials. Pneumatic clamps securely hold the container while a spring loaded splash ring minimizes spills from high speed mixing.



### 5.8 PAINT APPLICATION

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

Available air pressure and capacity for spray equipment should be at least 80 psi and 50 cfm (5.5kg/cm<sup>2</sup> and 1.4m<sup>3</sup>/min).

All spray equipment must be in good working order and be capable of performing to the output requirements defined in International's product technical data sheets.

Tips should be the size stipulated on the product technical data sheet. Tips must not be in a worn condition.

Specific paint application considerations for the Intershield Exterior Deck System are as follows:

#### **5.8.1 Intershield 456**

For airless spray, a minimum 56:1 ratio pump should be used. The spray tip should be of orifice 0.017-0.023 inch (0.432 – 0.584mm).

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### 5.8.2 Intergard 264

For airless spray, a minimum 30:1 ratio pump should be used. The spray tip should be of orifice 0.019 – 0,027 inch (0.483 – 0.686 mm)

### 5.8.3 Intershield 300HS

For Airless Spray, a minimum 40:1 ratio pump should be used. With total fluid pressure at the spray tip of not less than 3,000psi (211 kg/cm<sup>2</sup>). The spray tip should be of orifice 21-31 inch (0.53-0.78mm)

For the above Primers, a china bristle brush is recommended for brush application.

When applying by roller, use an All Purpose Roller Cover over 3/8 inch (9.5mm) pile, smooth to medium. Prewash the roller cover prior to use to remove loose fibres.

### 5.8.4 Intershield 5150LWT (applied by roller)

When applied by roller, the products must be applied with a long handled paint roller equipped with a smooth phenolic core roller cover. It is recommended that rolling 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.

Intershield 5150LWT 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.**

### 5.8.5 Intershield 5150LWT (Applied by Spray)

When applied by spray, only proven spray equipment or similar is recommended. Prior to actual application on asset surface, it is recommended a test panel be provided or small sample area be done so all parties concerned (i.e. asset owner and contractor/applicator) can agree on the finish texture/appearance. Upon agreement, the agreed panel or test area should be the standard utilized for acceptance criteria. It is also recommended the applicator carry out a spray test on cardboard or masking paper to establish a uniform spray pattern as well as to dial-in the air and material settings on the spray-gun and equipment. Standoff distance between the spray tip and the surface to be coated should be between 18" – 24" depending on air pressure and surface finish desired. When the coating has been properly spray applied, the surface profile will present a uniformly rough appearance over the entire surface. There should not be any loosely bounded clumps of particles. The surface profile will show an evenly raised pattern, less aggressive than when applied with a phenolic roller. 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 the aggregate in the coating. An even distribution can be obtained using volume area control. Consult International.

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Typical Appearance with both application methods:

Phenolic roller:



Spray applied:



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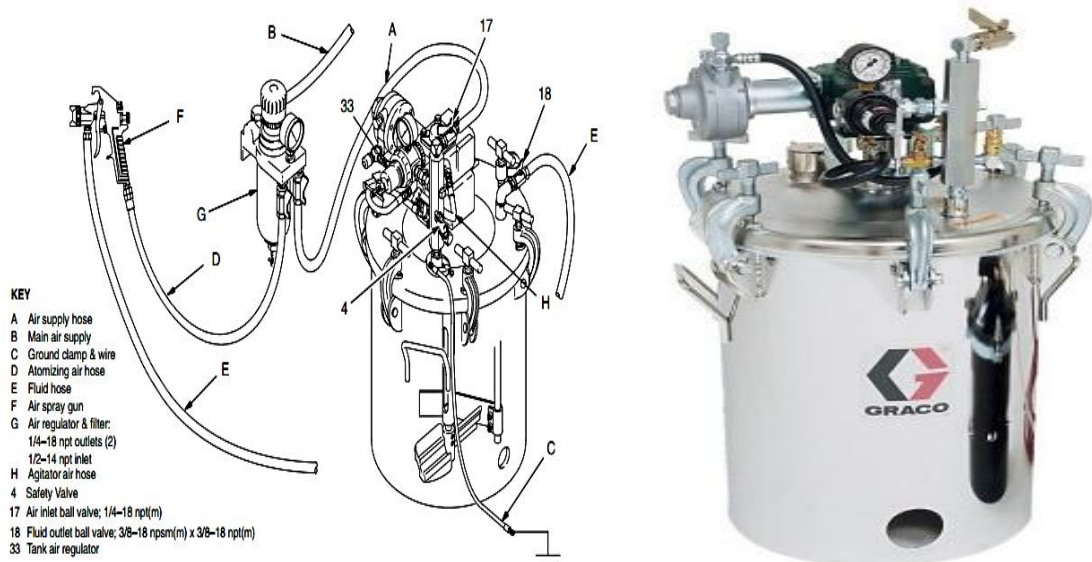


## Recommended Spray Equipment

When spray application is desired only proven spray equipment or similar is recommended, such as the Graco M680 Pump with Hopper atomizing air hose with mastic spray gun using (250 orifice size) with Buck Rogers course disc spray assembly.



Alternatively, the Graco 10 or 15 gallon Industrial grade pressure tanks with bottom feed supply, agitator for heavy duty coatings. Contact the spray equipment manufacturer for more information.



For Spray applications with a Pentech VS3MM with Pentech SP1000 spray pole with a Hose Length of 1" x 25' can be used. Air Motor Pressure Setting: 35 - 45 psi, Atomizing Air Flow Setting: 80 - 90 CFM, adjust as required. System Priming: Please refer to VS3MM operating manual. Nozzle Distance above Deck: Approximately 24", Overlap passes approximately 30% - 50% depending on thickness and texture desired. Clean Up with GTA415 or GTA220. VS3MM User Manual should be read and understood before use.

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SQ/GRACO M680 Portable Mortar Pump with S.S. Hopper Packages: 398-682 Detailing Sprayer Package including Graco Mortar Pump with Hopper (10:1 pressure ratio, 7.2 gpm @ 40 cpm) mounted on (2) wheeled cart including air inlet crow foot adapter, pump air regulator with air gauge and air valve; 10 gallon S.S. hopper with cam-lock quick disconnect and pump inlet adapter; 1" fluid outlet with cam lock quick disconnect, 35' x 1" fluid hose with cam lock quick disconnect at the pump, 35' x 1/4" pilot air hose, 35' x 1/2" atomizing air hose and mastic spray gun with buck rogers course disc spray assembly. Or 398-683 High Production Sprayer Package including Graco Mortar Pump with Hopper (10:1 pressure ratio, 7.2 gpm @ 40 cpm) mounted on (2) wheeled cart including air inlet crow foot adapter, pump air regulator with air gauge and air valve; 10 gallon S.S. hopper with cam-lock quick disconnect and pump inlet adapter; 1" fluid outlet with cam lock quick disconnect, 35' x 1" fluid hose with cam lock quick disconnect at the pump, 35' x 1/4" pilot air hose, 35' x 1/2" atomizing air hose and Grover pole spray gun with 1/4", 3/8" and 1/2" spray nozzles.



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## **6. HEALTH & SAFETY**

### **6.1 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.

### **6.2 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.

### **6.3 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.

### **6.4 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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