Intergard® 251HS

International®

Epoxy

PRODUCT DESCRIPTION

A two component, low VOC, high solids, fast curing epoxy primer containing zinc phosphate anti-corrosive pigmentation.

Suitable for overcoating within 2 hours under common climatic conditions. Early handling properties make this an ideal primer for speeding up production and throughput.

INTENDED USES

For use on a range of industrial facilities and infrastructure assets where film build and fast through-put are priorities.

This primer, in combination with approved topcoats, offers optimized anticorrosive protection in various atmospheric environments.

PRACTICAL INFORMATION FOR INTERGARD 251HS

Color	Red, Gray, Buff
Gloss Level	Matte
Volume Solids	75% ± 2%
Typical Thickness	3-8 mils (75-200 microns) dry equivalent to 4-10.7 mils (100-267 microns) wet
Theoretical Coverage	401 sq.ft/US gallon at 3 mils d.f.t and stated volume solids 10 m²/liter at 75 microns d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray,Air Spray,Brush, Roller

Drying Time

			Overcoating Interval with recommended topcoats	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
41°F (5°C)	2 hours	5.5 hours	4 hours	Extended[1]
59°F (15°C)	60 minutes	3.5 hours	3 hours	Extended[1]
77°F (25°C)	30 minutes	2.25 hours	2 hours	Extended[1]
104°F (40°C)	15 minutes	60 minutes	60 minutes	Extended[1]

[1] See International Protective Coatings Definitions & Abbreviations
Maximum overcoating intervals are shorter when using polysiloxane topcoats. Consult International Protective Coatings for further details.

REGULATORY DATA

Flash Point (Typical)	Part A 88°F (31°C); Part B 86°F (30°C); Mixed 88°F (31°C)
Product Weight	13.3 lb/gal (1.59 kg/l)
VOC	2.02 lb/gal (243 g/lt) EPA Method 24
	157 g/kg EU Solvent Emissions Directive (Council Directive 2010/75/EC)
	262 g/lt (2.18 lb/US Gal) in accordance with Korea Clean Air Conservation Act

Coating hazard marker GB 30981.2-S-Pb≤1000-NC Qualified for GB 30981.2-2025

See Product Characteristics section for further details

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SURFACE PREPARATION

All steel surfaces to be coated should be clean, dry and free from contamination. Prior to paint application, all surfaces should be assessed and treated in accordance with ISO 8504-2000.

Oil or grease should be removed in accordance with SSPC-SP1 solvent cleaning.

Steel

Abrasive blast clean to a minimum of Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intergard 251HS the surface should be re-blasted to the specified visual standard. Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

A surface profile of 1.6-3.0 mils (40-75 microns) is recommended.

Shop Primed Steelwork

Weld seams and damaged areas should be abrasive blast cleaned to a minimum SSPC SP6 or Sa2½ standard (ISO 8501-1:2007). Where this is not practical, preparation to SSPC SP11 is acceptable.

APPLICATION

Mixing

Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed, it must be used within the working pot life specified.

(1) Agitate Base (Part A) with a power agitator.
(2) Combine entire contents of Curing Agent (Part B) with Base (Part A) and mix thoroughly with power agitator.

Mix Ratio

3 part(s) : 1 part(s) by volume

Working Pot Life

41°F (5°C)	59°F (15°C)	77°F (25°C)	104°F (40°C)
90 minutes	60 minutes	60 minutes	30 minutes

Airless Spray

Recommended

Tip Range 17-21 thou (0.43-0.53 mm)
Total output fluid pressure at spray tip not less than 2204 psi (155 kg/cm²)

Air Spray (Pressure Pot)

Suitable

Gun	DeVilbiss MBC or JGA
Air Cap	704 or 765
Fluid Tip	E

Brush

Suitable

Recommended for small areas and repairs, multiple coats will be necessary to achieve the required dry film thickness.

Roller

Suitable

Recommended for small areas and repairs, multiple coats will be necessary to achieve the required dry film thickness.

Thinner

International GTA220

Do not thin more than allowed by local environmental legislation

Cleaner

International GTA822

Choice of cleaner may be subject to local legislation. Please consult your local representative for specific advice.

Work Stoppages

Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.

Clean Up

Clean all equipment immediately after use with International GTA822. It is good working practice to periodically clean equipment during the course of the working day. Frequency of cleaning will depend upon amount used, temperature and elapsed time, including any delays.

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

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PRODUCT CHARACTERISTICS

Intergard 251HS is preferred for use with systems for chemical environments where zinc based materials can be subject to attack in both acidic and alkaline conditions.

Apply in good climatic conditions. The temperature of the surface to be coated must be at least 5°F (3° C) above the dew point.

Over-application of Intergard 251HS will extend both the minimum overcoating periods and handling times.

When applying Intergard 251HS by brush or roller, it may be necessary to apply multiple coats to achieve the required film build.

In common with all epoxies, Intergard 251HS will chalk and discolor on exterior exposure. Where a durable cosmetic finish with good gloss and color retention is required, overcoat with recommended topcoats.

Intergard 251HS is not designed for continuous water immersion.

An alternative curing agent to improve application properties in tropical climates is also available.

The following drying times and overcoating intervals apply when the tropical climate curing agent is used;

			Overcoating Interval with recommended topcoats	
Temperature	Touch Dry	Hard Dry	*Minimum*	*Maximum*
41°F (5°C)	5 hours	16 hours	16 hours	Extended[1]
59°F (15°C)	4 hours	6 hours	6 hours	Extended[1]
77°F (25°C)	90 minutes	4 hours	4 hours	Extended[1]
104°F (40°C)	45 minutes	2 hours	2 hours	Extended[1]

[1] See International Protective Coatings Definitions and Abbreviations.

Pot Life:

41ºF (5ºC)	59ºF (15ºC)	77ºF (25ºC)	104ºF (40ºC)
2 hours	2 hours	90 minutes	60 minutes

Note: VOC values are typical and are provided for guidance purpose only. These may be subject to variation depending on factors such as differences in color and normal manufacturing tolerances.

Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values determined using EPA Method 24.

SYSTEMS COMPATIBILITY

Intergard 251HS is normally applied directly to steel, however, it can be applied over the following primers:

Interzinc 22
Interzinc 52

Recommended topcoats are:

Chartek 1709	Chartek 7	Chartek 8E
Interchar 1190	Interchar 212	Interfine 878
Interfine 979	Intergard 345	Intergard 475HS
Intergard 740	Interseal 670HS	Interthane 870
Interthane 870UHS*	Interthane 990	Interthane 990E
Interthane 990V*	Interzone 954	

For other suitable topcoats, consult International Protective Coatings.

*available only in selected countries.

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ADDITIONAL INFORMATION

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following documents available at www.international-pc.com:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage

Individual copies of these information sections are available upon request.

SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Safety Data Sheet and the container(s), and should not be used without reference to the Safety Data Sheet (SDS).

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult AkzoNobel for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 liter	15 liter	20 liter	5 liter	5 liter
	5 US gal	3 US gal	5 US gal	1 US gal	1 US gal
	1 US gal	0.75 US gal	1 US gal	0.25 US gal	1 US quart
	For availability of other pack sizes, contact AkzoNobel.				
SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A		Part B	
	20 liter	26.8 kg		7.1 kg	
	5 US gal	54.1 lb		13 lb	
	1 US gal	12 lb		3.5 lb	
STORAGE	Shelf Life	12 months at 77ºF (25°C). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.			

Disclaimer

The information in this data sheet is not intended to be exhaustive; any person using the product for any purpose other than that specifically recommended in this data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at their own risk. All advice given or statements made about the product (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability at all for the performance of the product or for (subject to the maximum extent permitted by law) any loss or damage arising out of the use of the product. We hereby disclaim any warranties or representations, express or implied, by operation of law or otherwise, including, without limitation, any implied warranty of merchantability or fitness for a particular purpose. All products supplied and technical advice given are subject to our Conditions of Sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is liable to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to check with their local representative that this data sheet is current prior to using the product.

This Technical Data Sheet is available on our website at www.international-marine.com or www.international-pc.com, and should be the same as this document. Should there be any discrepancies between this document and the version of the Technical Data Sheet that appears on the website, then the version on the website will take precedence.

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