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	12 months
59°F (15°C)	60 minutes	3.5 hours	3 hours	12 months
77°F (25°C)	30 minutes	2.25 hours	2 hours	12 months
104°F (40°C)	15 minutes	60 minutes	60 minutes	12 months

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) 157 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 1999/13/EC)

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) Agitate Curing Agent (Part B) with a power agitator.
(3) 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

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*
41ºF (5°C)	5 hours	16 hours	16 hours	12 months
59ºF (15°C)	4 hours	6 hours	6 hours	12 months
77ºF (25°C)	90 minutes	4 hours	4 hours	12 months
104ºF (40°C)	45 minutes	2 hours	2 hours	12 months

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 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 Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

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 International Protective Coatings 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 International Protective Coatings				

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