Intergard® 251

Epoxy

PRODUCT DESCRIPTION

A two component epoxy anti-corrosive primer pigmented with zinc phosphate.

INTENDED USES

For use on properly prepared surfaces in both new construction situations and as an industrial maintenance primer for a wide range of anti-corrosive coatings systems for use in the offshore, petrochemical, chemical, pulp and paper and bridge industries.

The fast drying and handling properties, together with extended overcoatability, make this an excellent primer for factory application prior to full system application on site. Intergard 251 provides good abrasion resistance which minimises mechanical damage in transit between the factory and site.

PRACTICAL INFORMATION FOR INTERGARD 251

Colour	Buff, Grey, Red Oxide
Gloss Level	Matt
Volume Solids	63% ± 2%
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 79-119 microns (3.2-4.8 mils) wet
Theoretical Coverage	8.40 m²/litre at 75 microns d.f.t and stated volume solids 337 sq.ft/US gallon at 3 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Air Spray, Airless Spray, Brush, Roller

Drying Time

			Overcoating Interval with recommended topcoats	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
10°C (50°F)	2 hours	7 hours	7 hours	12 months[1]
15°C (59°F)	1 hour	5 hours	5 hours	12 months[1]
25°C (77°F)	45 minutes	3 hours	3 hours	12 months[1]
40°C (104°F)	30 minutes	2 hours	2 hours	12 months[1]

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

REGULATORY DATA

Flash Point (Typical)	Part A 24°C (75°F); Part B 27°C (81°F); Mixed 24°C (75°F)	
Product Weight	1.38 kg/l (11.5 lb/gal)	
VOC	3.25 lb/gal (390 g/lt) 293 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 2010/75/EU)

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

See Product Characteristics section for further details

SURFACE PREPARATION

All 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 8504:2019.

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

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intergard 251, the surface should be reblasted to the specified visual standard.

Surface defects revealed by the blast cleaning process should be ground, filled, or treated in the appropriate manner.

Surface profile must be a minimum of 50 microns (2 mils).

Shop Primed Steelwork

Weld seams and damaged areas should be cleaned to a minimum St3 (ISO 8501-1:2007) or SSPC-SP3. Optimum performance will be achieved with blasting to Sa2½ (ISO 8501-1:2007) or SSPC-SP6; where this is not practical, power tool preparation to SSPC-SP11 is recommended.

If the shop primer shows extensive or widely scattered breakdown overall sweep blasting may be necessary.

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

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

Working Pot Life

10°C (50°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
10 hours	8 hours	6 hours	3 hours

Airless Spray

Recommended

Tip Range 0.38-0.53 mm (15-21 thou)
Total output fluid pressure at spray tip not less than 155 kg/cm² (2204 p.s.i.)

Air Spray (Pressure Pot)

Recommended

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

Brush

Suitable

Typically 40-50 microns (1.6-2.0 mils) can be achieved

Roller

Suitable

Typically 40-50 microns (1.6-2.0 mils) can be achieved

Thinner

International GTA220 (or International GTA415)

Do not thin more than allowed by local environmental legislation.

Cleaner

International GTA822 or International GTA415

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 flush out spray equipment during the course of the working day. Frequency of cleaning will depend upon amount sprayed, temperature and elapsed time, including any delays.

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

PRODUCT CHARACTERISTICS

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

The maximum overcoating interval will be dependent upon the integrity of the exposed film. A film of 75 microns (3 mils) dry film thickness will normally be overcoatable after 6-12 months exposure (depending upon the corrosivity of the environment) provided it is adequately cleaned and any areas of mechanical damage repaired.

Over-application should be avoided as thick films will not be as good a substrate for topcoat adhesion after ageing as those at the specified thickness. When using as a blast holding primer avoid over-application as thick films may suffer from cohesive film splitting if subsequent coats are also over-applied.

Over-application of Intergard 251 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

When applying Intergard 251 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

This product will not cure adequately below 5°C (41°F). For maximum performance, curing temperatures should be above 10°C (50°F).

Surface temperature must always be a minimum of 3°C (5°F) above dew point.

In common with all epoxies Intergard 251 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Intergard 251 is not designed for continuous water immersion.

Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats.

On consultation with International Protective Coatings this product is compatible with alternative application methods such as flow coating.

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 colour 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 251 is designed for application to correctly prepared steel. However, it is also possible to apply over approved prefabrication primers. Further details of these can be obtained from International Protective Coatings.

The following primers are recommended for Intergard 251:

Interzinc 22 * (mist coat or tie coat may be required)
Interzinc 52
Interzinc 2280 * (mist coat or tie coat may be required)
InterH2O 280

The following topcoats are recommended for Intergard 251:

Intercure 200HS	Intergard 475HS
Intercure 420	Intergard 740
Interfine 629HS	Interseal 670HS
Interfine 878	Interthane 870
Interfine 979	Interthane 990
Intergard 251	Interthane 990E
Intergard 345	

Alternative topcoats are also available, consult International Protective Coatings.

See relevant product data sheet for details.

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 litre	16 litre	20 litre	4 litre	5 litre
5 US gal	4 US gal	5 US gal	1 US gal	1 US gal

For availability of other pack sizes, contact AkzoNobel.

SHIPPING WEIGHT (TYPICAL)

Unit Size	Part A	Part B
20 litre	26 kg	4.2 kg
5 US gal	54.2 lb	8.8 lb

STORAGE

Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

Important Note

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.

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