Intergard® 345

Epoxy

PRODUCT DESCRIPTION

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

INTENDED USES

Suitable for use as a one or two coat primer/finish coating or as an intermediate over recommended anti-corrosive primers.

Intergard 345 provides a combination of anti-corrosive barrier protection, chemical fume and spillage resistance, along with good abrasion resistance.

Ideal for use in moderately corrosive environments and where fast drying/rapid recoating is desired.

PRACTICAL INFORMATION FOR INTERGARD 345

Colour	Wide range via the Chromascan system
Gloss Level	Semi Gloss
Volume Solids	70%
Typical Thickness	100-150 microns (4-6 mils) dry equivalent to 143-214 microns (5.7-8.6 mils) wet
Theoretical Coverage	5.60 m²/litre at 125 microns d.f.t and stated volume solids 225 sq.ft/US gallon at 5 mils 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*
10°C (50°F) [1]	90 minutes	7 hours	7 hours	Extended[2]
15°C (59°F) [1]	75 minutes	5 hours	5 hours	Extended[2]
25°C (77°F) [1]	60 minutes	2.5 hours	2.5 hours	Extended[2]
40°C (104°F) [1]	30 minutes	1 hour	1 hour	Extended[2]

[1] See Product Characteristics section for further details
[2] See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 33°C (91°F); Part B 43°C (109°F); Mixed 34°C (93°F)	
Product Weight	1.45 kg/l (12.1 lb/gal)	
VOC	2.67 lb/gal (320 g/lt)	EPA Method 24
	235 g/kg	EU Solvent Emissions Directive (Council Directive 2010/75/EU)
	214 g/lt	Chinese National Standard GB23985

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 8504:2000.

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 345, 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. A surface profile of 50-75 microns (2-3 mils) is recommended. Intergard 345 is suitable for application to blast cleaned surfaces which were initially to the above standard but have been allowed to deteriorate under good shop conditions for up to 7-10 days. The surface may deteriorate to Sa2 standard but must be free from loose powdery deposits.

Primed Surfaces

Weld seams and damaged areas should be blast cleaned to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

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

Concrete, Pre-Cast Blockwork etc

Intergard 345 is suitable for application to concrete. For the first coat it is recommended that Intergard 345 is thinned 10-15% by International Thinners in order to provide good penetration of the concrete substrate and act as a primer / sealer coat.

Concrete should be cured for a minimum of 28 days prior to coating. The moisture content of the concrete should be below 6%. All surfaces should be clean, dry and free from curing compounds, release agents, trowelling compounds, surface hardeners, efflorescence, grease, oil, dirt, old coatings and loose or disintegrating concrete. All poured and precast concrete must also be sweep blasted (preferred) or acid etched to remove laitence.

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)
3 hours	2 hours	60 minutes	45 minutes

Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm² (2503 p.s.i.)	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - small areas only	Typically 75-100 microns (3.0-4.0 mils) can be achieved	
Roller	Suitable - small areas only	Typically 75-100 microns (3.0-4.0 mils) can be achieved	
Thinner	International GTA220 (International GTA415)	Thinning is not normally required. Consult the local representative for advice during application in extreme conditions. Do not thin more than allowed by local environmental legislation.	
Cleaner	International GTA220 or International GTA415	Choice of cleaner maybe 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 GTA220. 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 GTA220. 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

Maximum film build in one coat is best attained by airless spray. When applying by methods other than airless spray, the required film build is unlikely to be achieved. Application by air spray may require a multiple cross spray pattern to attain maximum film build. Low or high temperatures may require specific application techniques to achieve maximum film build.

When applying Intergard 345 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 ambient curing temperatures should be above 10°C (50°F).

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

When applying Intergard 345 in confined spaces ensure adequate ventilation.

In moderately corrosive environments, it is recommended that a minimum of 100 microns (4 mils) dry film thickness should be specified to ensure adequate anti-corrosive performance. However, in non-aggressive, low corrosive environments such as those equating to C2 as per ISO 12944 part 2, it is acceptable to specify Intergard 345 as a single coat at 80 microns (3.2 mils) dry film thickness.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

When utilising certain colours, particularly the darker shades via the Chromascan system where maximum addition of colourants is required, it is necessary to allow an increase in the quoted drying and overcoating times. Consult International Protective Coatings for further details.

Exposure to dew or rain prior to specified hard dry time may cause a deterioration in surface appearance which may in turn impair overall performance. This phenomenon is particularly prominent in darker shades.

In common with all epoxies Intergard 345 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

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

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 345 is normally applied directly to blast cleaned steel, however, it can also be applied directly over the following primers:

Intercure 200HS
Intercure 200
Intergard 251
Intergard 269
Intergard 345
Interzinc 52
Interzinc 315

The following topcoats are recommended:

Interfine 629HS
Intergard 740
Interthane 870
Interthane 990

For other suitable primers/topcoats, consult International Protective Coatings.

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	26.8 kg	4.3 kg
	5 US gal	50 lb	8.6 lb

STORAGE	Shelf Life	18 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

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