Interzone® 505

Glass Flake Epoxy

PRODUCT DESCRIPTION

A high solids, low VOC, high build epoxy primer/intermediate or finish coat, reinforced with chemically resistant high aspect ratio glass flake for enhanced durability and corrosion resistance.

INTENDED USES

For the protection of steelwork in all corrosive environments including splashzone areas on offshore structures, underdeck, decks and above water areas, pilings, pulp and paper mills, bridges and chemical plants.

To provide excellent long term, anti-corrosive and anti-abrasion protection in both new construction and maintenance situations.

As part of a non-slip deck system in conjunction with appropriate aggregate.

PRACTICAL INFORMATION FOR INTERZONE 505

Colour	Limited range
Gloss Level	Semi Gloss
Volume Solids	90%
Typical Thickness	300-500 microns (12-20 mils) dry equivalent to 333-556 microns (13.3-22.2 mils) wet
Theoretical Coverage	2.25 m²/litre at 400 microns d.f.t and stated volume solids 90 sq.ft/US gallon at 16 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*
5°C (41°F)	20 hours	28 hours	28 hours	7 days[1]
15°C (59°F)	6 hours	14 hours	14 hours	5 days[1]
25°C (77°F)	3 hours	6 hours	6 hours	4 days[1]

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

For curing at elevated temperatures an alternative curing agent is available. Contact International Protective Coatings for more information.

REGULATORY DATA

Flash Point (Typical)	Part A 54°C (129°F); Part B 33°C (91°F); Mixed 35°C (95°F)	
Product Weight	1.29 kg/l (10.8 lb/gal)	
VOC	1.71 lb/gal (205 g/lt)	EPA Method 24
	164 g/kg	EU Solvent Emissions Directive (Council Directive 2010/75/EU)
	124 g/lt	Chinese National Standard GB23985

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

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be clean and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:2000.

Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

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 Interzone 505, 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.

Ultra High Pressure Hydroblasting / Abrasive Wet Blasting

May be applied to surfaces prepared to Sa2½ (ISO 8501-1:2007) or SSPC-SP6 which have flash rusted to no worse than Grade HB2½M (refer to International Hydroblasting Standards) or Grade SB2½M (refer to International Slurry Blasting Standards). It is also possible to apply to damp surfaces in some circumstances. Further information is available from International Protective Coatings.

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

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

Working Pot Life

5°C (41°F)	15°C (59°F)	25°C (77°F)
2.5 hours	90 minutes	60 minutes

Airless Spray	Recommended	Tip Range 0.53-0.79 mm (21-31 thou) Total output fluid pressure at spray tip not less than 211 kg/cm² (3000 p.s.i.)
Air Spray (Pressure Pot)	Recommended	Gun DeVilbiss MBC or JGA Air Cap 62 Fluid Tip AC
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 (or 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 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

Interzone 505 is suitable for both water immersion and exterior exposure. For water immersion a minimum system thickness of 450 microns (18 mils) is required to achieve long term anti-corrosive performance. For general exterior exposure in aggressive conditions a minimum system thickness of 350 microns (14 mils) is required.

If salt water is used in the wet blast process the resulting surface must be thoroughly washed with fresh water before application of Interzone 505. With freshly blasted surfaces a slight degree of flash rusting is allowable, and is preferable to the surface being too wet. Puddles, ponding and accumulations of water must be removed.

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.

For airless spray application best results will be achieved by using 9 mm (3/8") lines with no whip ends. The pump should be a minimum of 45:1 ratio. Filters should be removed from the spray machine and gun, and fluid lines kept as short as possible.

Higher ratio pumps are recommended when long fluid lines are used.

When applying Interzone 505 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

In special cases where overcoating is required and curing has been at low temperature and high relative humidity, ensure no amine bloom is present prior to application of subsequent topcoats.

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 above dew point.

When applying Interzone 505 in confined spaces ensure adequate ventilation.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.Premature exposure to ponding water will cause a colour change, especially in dark colours.

Films of Interzone 505 cured at an ambient temperature of 25°C (77°F) or greater, will be suitable for immersion in water after 24 hours.

Curing is retarded underwater. Some colour change may be observed.

For curing at elevated temperatures an alternative curing agent is available. Contact International Protective Coatings for more information.

For further details regarding cure times and overcoatability, please contact International Protective Coatings.

Interchanging standard and elevated temperature curing agents during application to a specific structure will give rise to an observable colour change due to the difference in the yellowing/discolouration process common to all epoxies on exposure to UV light.

In common with all epoxies Interzone 505 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.

Interzone 505 can be used as a non-skid deck system by modification with addition of GMA132 (crushed flint) aggregate. Application should then be to a suitably primed surface. Typical thicknesses will be between 500-1,000 microns (20-40 mils). Preferred application is by a suitable large tip hopper gun (e.g. Sagola 429 or Air texture gun fitted with a 5-10 mm nozzle). Trowel or roller can be used for small areas. Alternatively, a broadcast method of application can be used. Consult International Protective Coatings for further details.

Interzone 505 is compatible with sacrificial and impressed current cathodic protection systems.

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

Interzone 505 can be applied directly to blasted steel but can also be used over the following primers for underwater systems:

Intergard 269 Interline 982

When used in aggressive exterior exposure environments the following primers are recommended for Interzone 505:

Intercure 200 Interzinc 52
Intergard 251 Interzinc 315
Interzinc 22 * (mist coat or tie coat may be required)

The following topcoats are recommended for Interzone 505:

Interfine 629HS
Interthane 990

For other suitable primers/topcoats, 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	10.5 litre	20 litre	7 litre	10 litre
5 US gal	3 US gal	5 US gal	2 US gal	2 US gal

For availability of other pack sizes, contact AkzoNobel.

SHIPPING WEIGHT (TYPICAL)

Unit Size	Part A	Part B
20 litre	16.75 kg	8.76 kg
5 US gal	33.9 lb	18.3 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.

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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