

## Inorganic Zinc-Rich Silicate

### PRODUCT DESCRIPTION

Part of the Interzinc 22 Series of products.

A two component, rapid recoat, fast curing solvent based inorganic zinc rich ethyl silicate primer, containing 85% zinc by weight in the dry film. Conforms to SSPC Paint 20 Level 1.

Available in ASTM D520, Type II (low lead) zinc dust version as standard

### INTENDED USES

A zinc rich primer suitable for use with a wide range of high performance systems and topcoats in both maintenance and new construction of bridges, tanks, pipework, offshore structures and structural steelwork.

Provides excellent corrosion protection for correctly prepared steel substrates, up to temperatures of 1004°F (540°C) when suitably topcoated.

Fast curing primer capable of application in a wide range of climatic conditions.

### PRACTICAL INFORMATION FOR INTERZINC 22

|                              |   |
|------------------------------|---|
| <b>Color</b>                 | Green Gray  |
| <b>Gloss Level</b>           | Matte   |
| <b>Volume Solids</b>         | 63%   |
| <b>Typical Thickness</b>     | 2-3 mils (50-75 microns) dry equivalent to 3.2-4.8 mils (79-119 microns) wet  |
| <b>Theoretical Coverage</b>  | 337 sq.ft/US gallon at 3 mils d.f.t and stated volume solids<br>8.40 m <sup>2</sup> /liter at 75 microns d.f.t and stated volume solids |
| <b>Practical Coverage</b>    | Allow appropriate loss factors  |
| <b>Method of Application</b> | Airless Spray, Air Spray  |

### Drying Time

| Temperature  | Touch Dry  | Hard Dry   | Overcoating Interval with recommended topcoats |                       |
|--------------|------------|------------|--|-----------------------|
|              |            |            | Minimum  | Maximum               |
| 41°F (5°C)   | 30 minutes | 3 hours    | 18 hours                                       | Extended <sup>1</sup> |
| 59°F (15°C)  | 20 minutes | 90 minutes | 9 hours  | Extended <sup>1</sup> |
| 77°F (25°C)  | 10 minutes | 1 hour     | 4.5 hours                                      | Extended <sup>1</sup> |
| 104°F (40°C) | 5 minutes  | 30 minutes | 1.5 hours                                      | Extended <sup>1</sup> |

<sup>1</sup> See International Protective Coatings Definitions & Abbreviations

The drying times quoted have been determined at the quoted temperature and 55% relative humidity. The 41°F (5°C) time was determined at 60% relative humidity. Prior to overcoating, verify a value of 4 via ASTM D4752 MEK rub test. See Product Characteristics section for more details on overcoating.

**REGULATORY DATA** **Flash Point (Typical)** Part A 66°F (19°C); Mixed 66°F (19°C)

**Product Weight** 20.4 lb/gal (2.44 kg/l)

**VOC** 3.92 lb/gal (470 g/lt)  
216 g/kg

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

See Product Characteristics section for further details

## Inorganic Zinc-Rich Silicate

### 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 a minimum of SSPC-SP6 or Sa2½ (ISO 8501-1:2007), (or SSPC-SP10 for optimum performance). If oxidation has occurred between blasting and application of Interzinc 22, 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 1.6-3.0 mils (40-75 microns) is recommended.

#### Shop Primed Steelwork

Interzinc 22 is suitable for application to unweathered steelwork freshly coated with zinc silicate shop primers. If the zinc shop primer shows extensive or widely scattered breakdown, or excessive zinc corrosion products, overall sweep blasting will be necessary. Other types of shop primer are not suitable for overcoating and will require complete removal by abrasive blast cleaning.

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

#### Damaged/Repair Areas

All damaged areas should ideally be blast cleaned to SSPC SP6 or Sa2½ (ISO 8501:2007). However, it is acceptable that small areas can be power tool cleaned to SSPC SP11 or Pt3 (JSRA SPSS:1984), provided the area is not polished. Repair of the damaged area can then be carried out using a recommended zinc epoxy primer - consult International Protective Coatings for specific advice.

### APPLICATION

|                                 |  |   |  |                         |
|---------------------------------|--|---|--|-------------------------|
| <b>Mixing</b>                   | Interzinc 22 is supplied in two parts, a liquid Binder base component QHA285 (Part A) and a Powder component (Part B). The Powder (Part B) should be slowly added to the liquid Binder (Part A) whilst stirring with a mechanical agitator. DO NOT ADD LIQUID TO POWDER. Material should be filtered prior to application and should be constantly agitated in the pot during spraying. Once the unit has been mixed it should be used within the working pot life specified.  |   |  |                         |
| <b>Mix Ratio</b>                | 3.1 part(s) : 1 part(s) by volume<br>Mix ratio is given for advice; <b>always mix the product in the proportions supplied.</b>   |   |  |                         |
| <b>Working Pot Life</b>         | 41°F (5°C)<br>12 hours   | 59°F (15°C)<br>8 hours  | 77°F (25°C)<br>4 hours   | 104°F (40°C)<br>2 hours |
| <b>Airless Spray</b>            | Recommended  | Tip Range 15-21 thou (0.38-0.53 mm)<br>Total output fluid pressure at spray tip not less than 1593 psi (112 kg/cm²) |  |                         |
| <b>Air Spray (Pressure Pot)</b> | Recommended  | Typical pump Gun<br>Air Cap<br>Fluid Tip  | Graco X-Treme 40:1 or similar<br>DeVilbiss MBC-510/JGA-510 (Binks 2100)<br>704 or 765 (Binks 66SD or 68PB)<br>E (1.8mm or D (2.2mm) or Binks 66,67 |                         |
| <b>Brush</b>                    | Suitable - Small areas only  | Typically 1.0-2.0 mils (25-50 microns) can be achieved  |  |                         |
| <b>Roller</b>                   | Not recommended  |   |  |                         |
| <b>Thinner</b>                  | International GTA803,<br>International GTA415 or<br>International GTA138   | As regionally available. Do not thin more than allowed by local environmental legislation                           |  |                         |
| <b>Cleaner</b>                  | International GTA803,<br>International GTA138 or<br>International GTA415   | As regionally available.  |  |                         |
| <b>Work Stoppages</b>           | Do not allow material to remain in hoses, guns or spray equipment. Thoroughly flush all equipment with International GTA803/International GTA415 /International GTA138. 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.  |   |  |                         |
| <b>Clean Up</b>                 | Clean all equipment immediately after use with International GTA803/International GTA415/International GTA138. 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.<br><br>All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation. |   |  |                         |

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### PRODUCT

Prior to overcoating, Interzinc 22 must be clean, dry and free from both soluble salts and excessive zinc corrosion products.

### CHARACTERISTICS

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

When applying Interzinc 22 in confined spaces, ensure adequate ventilation.

The minimum overcoating interval is dependent upon the relative humidity during cure.

If thinning is required to assist spray application in warmer climates, (typically >82°F (28°C)), it is recommended that International GTA803 thinners are used.

It is recommended that prior to overcoating a solvent rub test to ASTM D4752 should be undertaken. A value of 4 indicates a satisfactory degree of cure for overcoating purposes.

At relative humidities below 55%, curing will be retarded. Humidity may be increased by the use of steam or water spraying. However, cure at relative humidities below 55% is more effectively achieved by incorporating the Low Humidity Cure Accelerator\*; some example overcoating times at 59°F (15°C) are detailed below;

| Relative Humidity (%)        | 20       | 30       | 40       |
|------------------------------|----------|----------|----------|
| Minimum Overcoating Interval | 24 hours | 10 hours | 10 hours |

The Interzinc 22 Application Guidelines contain further information on expected cure times at lower relative humidities.

Excessive film thickness and/or over-application of Interzinc 22 can lead to mudcracking, which will require complete removal of the affected areas by abrasive blasting and re-application in accordance with the original specification.

Care should be exercised to avoid the application of dry film thicknesses in excess of 5.0 mils (125 microns).

For high temperature systems the thickness of Interzinc 22 should be restricted to 2 mils (50 microns) d.f.t. Continuous dry temperature resistance of Interzinc 22 is 752°F (400°C) if left untopcoated, however, if this product is used as a primer for Intertherm 50, the dry temperature resistance will be 1004°F (540°C).

Untopcoated Interzinc 22 is not suitable for exposure in acid or alkaline conditions or continuous water immersion.

This product has the following specification approvals:

- AISC Specification 348-04 Research Council for Structural Connections Class B Coating
- UNE 48293 (Spain)

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.

\*Only available in Europe, China, Middle East, Africa and Russia.

## SYSTEMS COMPATIBILITY

When it is necessary for Interzinc 22 is to be overcoated by itself due to low dry film thickness the coating surface must be fresh and unweathered. A minimum of 2 mils (50 microns) d.f.t. of any subsequent coat of Interzinc 22 is needed to ensure good film formation.

Before overcoating with recommended topcoats ensure the Interzinc 22 is fully cured (see above) and if weathering has occurred all zinc salts should be removed from the surface by fresh water washing, and if necessary scrubbing with bristle brushes.

Typical topcoats and intermediates are:

|               |                 |
|---------------|-----------------|
| Intercure 200 | Intergard 475HS |
| Intercure 420 | Intertherm 50   |
| Intergard 251 | Interseal 670HS |
| Intergard 269 | Intertherm 715  |
| Intergard 345 |                 |

In some cases it may be necessary to apply a mist coat of suitable viscosity to minimize bubbling. This will depend upon the age of the Interzinc 22, surface roughness and ambient conditions during curing and application. Alternatively, an epoxy sealer coat, such as Intergard 269, can be used to reduce bubbling problems.

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

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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](http://www.international-pc.com):

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Interzinc 22 Application Guidelines

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     |
|  | 13.78 liter | 10.42 liter   | 15 liter | 3.36 liter  | 20 liter |
|  | 5 US gal    | 3.78 US gal   | 5 US gal | 1.22 US gal | 2 US gal |
| For availability of other pack sizes contact International Protective Coatings |             |   |          |             |          |
| SHIPPING WEIGHT (TYPICAL)  | Unit Size   | Part A  |          | Part B      |          |
|  | 13.78 liter | 11.6 kg   |          | 25.8 kg     |          |
|  | 5 US gal    | 34.4 lb   |          | 72.4 lb     |          |
| STORAGE  | Shelf Life  | Part A 6 months minimum at 77°F (25°C).<br>Part B 12 months minimum at 77°F (25°C).<br>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](http://www.international-marine.com) or [www.international-pc.com](http://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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