Interseal 414

Epoxy

International
Protective Coatings

Product Description

A two component, epoxy anti-corrosive primer pigmented with zinc phosphate and tolerant of application to damp substrates.

Intended Uses

As a primer coat to provide anti-corrosive protection on steel surfaces produced by wet abrasive blasting or by ultra high pressure water washing. Interseal 414 will tolerate some surface dampness and a degree of flash rusting, and can be used as a viable alternative to the addition of flash rust inhibitors to the wet blasting water.

Practical Information for Interseal 414

Colour	Red oxide
Gloss Level	Matt
Volume Solids	55%
Typical Thickness	50 microns (2 mils) dry equivalent to 91 microns (3.6 mils) wet
Theoretical Coverage	11.0 m^2/litre at 50 microns d.f.t and stated volume solids 441 sq.ft/US gallon at 2 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless spray, Air spray, Brush

Drying Time

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats *Minimum*	*Maximum*
10°C (50°F)	6 hours	24 hours	20 hours	Extended*
15°C (59°F)	4 hours	16 hours	16 hours	Extended*
25°C (77°F)	2 hours	8 hours	12 hours	Extended*
40°C (104°F)	1 hour	5 hours	6 hours	Extended*

* See International Protective Coatings Definitions & Abbreviations

Regulatory Data

Flash Point	Base (Part A) 35°C (95°F)	C/A (Part B) 35°C (95°F)	Mixed 35°C (95°F)
Product Weight	1.5 kg/l (12.5 lb/gal)		
VOC	480 g/l (4.00 lb/gal)	UK - PG6/23(92), Appendix 3	

ENG0898

Interseal 414

Epoxy

Surface Preparation

All surfaces to be coated should be clean and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:1992.

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

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:1988) or SSPC-SP6.

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

Interseal 414 is suitable for application to blast cleaned surfaces which were initially to the above standard but have been allowed to flash rust or "ginger" due to the presence of moisture. The surface must be free from loose powdery deposits.

Ultra High Pressure Hydroblasting/Abrasive Wet Blasting

May be applied to surfaces prepared to Sa2½ (ISO 8501-1:1988) or SSPC-SP6 which have flash rusted to no worse than Grade HB2½M (refer to International Hydroblasting 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

4 parts : 1 part 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	5 hours	2 hours

Airless Spray

Recommended

- Tip range 0.45-0.53 mm (18-21 thou)
- Total output fluid pressure at spray tip not less than 155 kg/cm² (2,200 p.s.i.)

Air Spray (Pressure Pot)

Recommended

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

Brush

Suitable - Small areas only

Typically 50 microns (2 mils) can be achieved

Roller

Suitable - Small areas only

Typically 50 microns (2 mils) can be achieved

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 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.

Interseal 414

Epoxy

Product Characteristics

Interseal 414 is not designed for use on surfaces covered with standing or running water, only on substrates where traces of surface dampness still remain from the drying process. Globules, puddles and accumulations of water must be removed (e.g. by blowing off with compressed air) before application of Interseal 414.

When using approved flash rust inhibitors ensure accumulations of water are dispersed to prevent the presence of excess soluble salt on the surface. Flash rust inhibitors are not recommended for use in areas which are likely to be immersed.

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.

Airless spray is the preferred method of application on damp surfaces as the higher particle energy of the applied film aids moisture displacement from the substrate.

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.

Interseal 414 is suitable for use up to 95% relative humidity when the surface is dry, and up to 80% relative humidity when the surface is damp, otherwise surface moisture will not be transmitted through the film during the curing process.

When Interseal 414 is allowed to weather before overcoating, ensure surface is clean and free from loose chalking before application of further coats.

Interseal 414 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) d.f.t. will normally be overcoatable after 6 months exposure 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 Interseal 414 will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

In common with all epoxies Interseal 414 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

Interseal 414 is not designed for continuous water immersion.

Systems Compatibility

Interseal 414 is suitable for overcoating with the following products:

Intercryl 525	Intergard 401
Intercure 200	Intergard 410
Intercure 202	Intergard 475 HS
Intercure 420	Intergard 735
Intercure 422	Intergard 740
Intergard 251	Interseal 670 HS
Intergard 269	Interzone 505
Intergard 270	Interzone 954
Intergard 400	

For other suitable topcoats, consult International Protective Coatings.

ENG0898

Interseal 414

Epoxy

Additional Information

Further information regarding industry standards, terms and abbreviations used in this data sheet can be found in the following sections of the International Protective Coatings data manual:

- 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	20 litre unit	Interseal 414 Base Interseal 414 Curing Agent	16 litres in a 20 litre container 4 litres in a 5 litre container
	For availability of other pack sizes contact International Protective Coatings		
Shipping Weight	U.N. Shipping No. 1263		
	20 litre unit	28.3 kg (62.4 lb) Base (Part A) 4.2 kg (9.3 lb) Curing Agent (Part B)	
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.	

Disclaimer

International Protective Coatings

World Centre
50 George Street
London W1A 2BB
England
Tel: (44) 171 612 1400
Fax: (44) 171 612 1561

Asia Region
3 Neythal Road
Jurong Town
Singapore 628570
Tel: (65) 663 3066
Fax: (65) 266 5287

Australasia Region
115 Hyde Road
Yeronga
Brisbane
Queensland
Australia
Tel: (61) 7 3892 8866
Fax: (61) 7 3892 4287
H&S (61) 1800 807 001

Europe Region
50 George Street
London W1A 2BB
England
Tel: (44) 171 612 1410
Fax: (44) 171 612 1555

Middle East Region
PO Box 37
Dammam 31411
Saudi Arabia
Tel: (966) 3 842 8436
Fax: (966) 3 842 4361

North America Region
6001 Antoine Drive
Houston
Texas 77091
Tel: (1) 713 682 1711
Fax: (1) 713 684 1327

South America Region
Rua Gomes de Carvalho, 1356,
15° Andar, Vila Olímpia,
São Paulo, S.P.
CEP: 04547-005
Brazil
Tel: (011) 3044 0344
Fax: (011) 3044 0322

Local Office:
Tel: 0191 469 6111 Fax: 0191 495 0676