InterH2O® 499S

Water-Borne Epoxy

PRODUCT DESCRIPTION

A two component, high performance fast drying water-borne epoxy. Suitable for use as a direct-to-metal coating. Extremely low solvent content meets all current and proposed VOC legislation.

INTENDED USES

InterH2O 499S is designed as a high build corrosion resistant direct to metal coating for use in water-borne systems for non-immersed structural steel. These systems will give excellent performance in aggresive environments in a wide range of industries. Fast drying and extended overcoating properties are ideal for new construction or mantenance use.

PRACTICAL INFORMATION FOR INTERH2O 499S

Colour	White, Red, Black, Grey
Gloss Level	Matt
Volume Solids	48%
Typical Thickness	75-160 microns (3-6.4 mils) dry equivalent to 156-333 microns (6.2-13.3 mils) wet
Theoretical Coverage	3.84 m²/litre at 125 microns d.f.t and stated volume solids 154 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)	60 minutes	8 hours	8 hours	6 months
15°C (59°F)	60 minutes	6 hours	6 hours	6 months
25°C (77°F)	30 minutes	5 hours	5 hours	6 months
40°C (104°F)	30 minutes	2 hours	2 hours	6 months

REGULATORY DATA

Flash Point (Typical)	Part A >100°C (>212°F); Part B >100°C (>212°F); Mixed >100°C (>212°F)	
Product Weight	1.36 kg/l (11.3 lb/gal)	
VOC	37 g/lt	Calculated
	76 g/lt	(water reduced)

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

See Product Characteristics section for further details

SURFACE PREPARATION

All steel 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.

Strict adherence to all cleanliness standards is essential for application of water based coatings

Abrasive Blast Cleaning

Abrasive blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of InterH2O 499S, 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.

Primed Surfaces

Where InterH2O 499S is to be applied over a primer, this should only be of an approved type; see Systems Compatibilty for details. The primer surface should be dry and free from all contamination and InterH2O 499S must be applied within the overcoating intervals specified (consult the relevant product data sheet). Areas of breakdown, damage etc., should be prepared to the specified standard (e.g. Sa2½ (ISO 8501-1:2007), or SSPC SP6, abrasive blasting), prior to the application of InterH2O 499S.

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.

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	2 hours	60 minutes

Airless Spray	Recommended	Tip Range 0.38-0.53 mm (15-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm² (2503 p.s.i.)
Air Spray (Conventional)	Recommended	Use suitable proprietary equipment
Brush	Suitable - small areas only	
Roller	Suitable - small areas only	
Thinner	Clean Water	
Cleaner	International GTA991	

Work Stoppages

Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA991. 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 GTA991. 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 material and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

PRODUCT CHARACTERISTICS

Apply by air or airless spray. Thoroughly flush equipment with International GTA991 thinner, or alcohol, followed by water prior to use. To obtain maximum edge protection and film build, airless or air spray application is recommended. Application by other methods, e.g. brush or roller, may require more than one coat.

As with all water based coatings careful control of application conditions is required to ensure good performance. The following basic parameters must be adhered to:

InterH2O 499S must be protected from freezing at all times during storage and transport. The recommended storage temperature is between 4°C (39°F) and 35°C (95°F).

The minimum steel temperature for application must be above 10°C (50°F), and be at least 3°C (5° F) above dew point.

The relative humidity should be lower than 80% otherwise drying and overcoating times will be severely extended. The relative humidity should be greater than 20% otherwise films may not coalesce satisfactorily. The air temperature must be kept between 10°C (50°F) and 40°C (104°F) during application to achieve films suitable for purpose. At temperatures around 30°C (86°F) higher relative humidities can be tolerated with good air flow. Good airflow is essential around the object being painted [minimum air speed 0.1m/sec (4 inches/sec), maximum air speed 1m/sec (40 inches/sec)]. Optimal air speed 0.3-0.5m/s (12 - 20 inches/sec). Minor areas which are difficult to ventilate should be brush applied to prevent over-application.

With InterH2O 499S no increase in viscosity is observed after mixing, even after long periods. However, if the stated pot lives are exceeded then the films formed on curing will have inferior properties and will not give the specified level of performance. Unlike other solvent based epoxies, the pot life of InterH2O 499S is shorter at low temperatures.

Over-application of InterH2O 499S will extend both the minimum overcoating periods and handling times, and may be detrimental to long term overcoating properties.

In common with all epoxies, InterH2O 499S will chalk and discolour on exterior exposure. 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

InterH2O 499S is suitable for use over the following primers:

Interdur 8800	Intergard 251
InterH2O 401	Interplate 317
Interzinc 52	

InterH2O 499S may be overcoated with itself or the following topcoats;

Intercryl 520	InterH2O 699
Interthane 990	

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

For availability of other pack sizes, contact AkzoNobel.

SHIPPING WEIGHT (TYPICAL)

Unit Size	Part A	Part B
20 litre	24.64 kg	4.7 kg

STORAGE

Shelf Life	9 months at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition. Protect from freezing at all times during storage.

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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