Intercure® 4500

Direct to Metal Polyaspartic

PRODUCT DESCRIPTION

Intercure 4500 is a low VOC, high solids, rapid cure primer/finish, offering excellent anticorrosive protection and long term aesthetic durability. Based upon innovative polyaspartic resin technology, Intercure 4500 can be applied as a single coat direct-to-metal or over suitable primers for more corrosive environments using standard application equipment.

In replacing alternative two or three coat systems, Intercure 4500 offers corrosion protection and aesthetic performance in a reduced number of layers. Its rapid cure characteristics (even at low temperatures) help to further optimize application time and reduce labor costs.

INTENDED USES

Low temperature rapid cure and early hardness development make Intercure 4500 ideal for fabrication shops looking to reduce heating costs and improve productivity, or for facilities located in colder climates. Intercure 4500 can offer significant benefits to OEM manufacturers where production and process efficiency are of major importance.

PRACTICAL INFORMATION FOR INTERCURE 4500

Color Limited color range available

Gloss Level Semi-gloss

Volume Solids 77% ± 2%

Typical Thickness 6-10 mils (150-250 microns) dry equivalent to 7.8-13 mils (195-325 microns) wet

Theoretical Coverage 176 sq.ft/US gallon at 7 mils d.f.t and stated volume solids
4.40 m²/liter at 175 microns d.f.t and stated volume solids

Practical Coverage Allow appropriate loss factors

Method of Application Airless Spray, Air Spray

Drying Time

			Overcoating interval with self	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
41°F (5°C)	60 minutes	3.5 hours[1]	3.5 hours	12 months
59°F (15°C)	45 minutes	2.5 hours[1]	2.5 hours	12 months
77°F (25°C)	30 minutes	2 hours[1]	2 hours	12 months
104°F (40°C)	15 minutes	1.5 hours[1]	1.5 hours	12 months

[1] The drying times quoted have been determined at the quoted temperature and 50% relative humidity.

REGULATORY DATA

Flash Point (Typical) Part A 122°F (50°C); Part B 316°F (158°C); Mixed 129°F (54°C)

Product Weight 12.5 lb/gal (1.5 kg/l)

VOC 1.87 lb/gal (225 g/lt) EPA Method 24

154 g/kg EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

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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.

Steel Substrates

Abrasive blast clean to SSPC-SP6 or Sa2½ (ISO 8501-1:2007). If oxidation has occurred between blasting and application of Intercure 4500, 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 sharp, angular surface profile of 2-3 mils (50-75 microns) is recommended.

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 Intercure 4500.

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

41°F (5°C)	59°F (15°C)	77°F (25°C)	104°F (40°C)
3 hours	2 hours	1 hour	45 minutes

Airless Spray	Recommended	Tip Range 18-21 thou (0.45-0.53 mm) Total output fluid pressure at spray tip not less than 2503 psi (176 kg/cm²)	
Air Spray (Pressure Pot)	Recommended	Gun Air Cap Fluid Tip	DeVilbiss MBC or JGA 704 or 765 E
Brush	Suitable - Touch up and small areas only	Typically 3.0-5.0 mils (75-125 microns) can be achieved	
Roller	Suitable - Touch up and small areas only		
Thinner	International GTA713 (or GTA056)	Do not thin more than allowed by local environmental legislation. Do not use alternative thinners.	
Cleaner	International GTA713 (or GTA056)	Choice of cleaner may be 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 GTA713. 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 GTA713. 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.

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PRODUCT CHARACTERISTICS

The detailed Intercure 4500 Application Guidelines should be consulted prior to use.

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. Lower or high temperatures may require specific application techniques to achieve maximum film build.

When applying Intercure 4500 by brush or roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Apply in good climatic conditions. The temperature of the surface to be coated must be at least 5°F (3° C) above the dew point.

Application at excessively high relative humidity, or under conditions where condensation is likely to occur, may result in immediate or permature loss of gloss. It is recommended that relative humidity should not exceed 85 % during application and cure. Application at humidities greater than 50% may result in faster drying times.

Care should be exercised to avoid application in excess of 14 mils (350 microns) dry film thickness.

Higher film thicknesses than recommended will result in higher gloss appearance.

When applying Intercure 4500 in confined spaces, ensure adequate ventilation.

As with other fast dry coating systems care should be taken to prevent overspray contamination of previously coated work pieces.

Intercure 4500 is not designed for continuous water immersion.

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.

SYSTEMS COMPATIBILITY

Intercure 4500 may be applied direct to metal for atmospheric exposure in environments up to and including C4 (as defined in ISO12944 Part 2). When using Intercure 4500 in C4 environments for high or very high durability periods, a primer will be required. For C5 environments, a primer should always be used.

Suitable primers for ISO 12944 C4 environment are:

Intercure 200HS

Suitable primers for ISO 12944 C5 environment are:

Interzinc 52

Intercure 4500 is not normally topcoated with products other than itself.

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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:

- Definitions & Abbreviations
- Surface Preparation
- Paint Application
- Theoretical & Practical Coverage
- Intercure 4500 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 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.

Warning: Contains isocyanate. Wear air-fed hood for spray application.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	20 liter	16 liter	20 liter	4 liter	5 liter
	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 liter	26 kg		5.1 kg	
	5 US gal	57.1 lb		10.6 lb	
STORAGE	Shelf Life	18 months at 77°F (25°C). 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.

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