

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 m ² /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

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			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/l)	EPA Method 24	
	154 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)	

Protective Coatings

Intercure[®] 4500

Direct to Metal Polyaspartic

See Product Characteristics section for further details



Direct to Metal Polyaspartic

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/cm ²)		
Air Spray (Pressure Pot)	Recommended	Gun	DeVilbiss MBC or JGA	
		Air Cap	704 or 765	
		Fluid Tip	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.			

Direct to Metal Polyaspartic

PRODUCT

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

CHARACTERISTICS

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 permanent 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.