Intercure® 420

Rapid Recoat Epoxy

PRODUCT DESCRIPTION

A two component, high solids, low VOC epoxy micaceous iron oxide coating formulated on proprietary polymer technology which provides rapid cure and overcoating even under low temperature conditions.

INTENDED USES

As a high build intermediate to provide excellent barrier protection as part of a high performance system suitable for use in aggressive environments including offshore, bridges, chemical and petrochemical plants, power stations, pulp and paper mills and industrial building.

Can be used as a barrier coating applied direct to steel where the environment is non aggresive.

The incorporation of plate-like micaceous iron oxide pigment both increases the barrier effect and improves long term overcoating properties of the system making this material ideally suitable for application in the fabrication shop, prior to shipping, with final overcoating at site.

The rapid curing and overcoating properties of Intercure 420 provide production flexibility, making this product suitable for use both in new construction and on site as a maintenance coating.

PRACTICAL INFORMATION FOR INTERCURE 420

Colour	Natural MIO, Silver Grey, Light Grey
Gloss Level	Matt
Volume Solids	70%
Typical Thickness	100-150 microns (4-6 mils) dry equivalent to 143-214 microns (5.7-8.6 mils) wet
Theoretical Coverage	5.60 m²/litre at 125 microns d.f.t and stated volume solids 225 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*
5°C (41°F)	75 minutes	7 hours	5 hours	Extended[1]
15°C (59°F)	50 minutes	4 hours	3 hours	Extended[1]
25°C (77°F)	40 minutes	2 hours	2 hours	Extended[1]
40°C (104°F)	30 minutes	1 hour	1 hour	Extended[1]

[1] See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 29°C (84°F); Part B 26°C (79°F); Mixed 27°C (81°F)	
Product Weight	1.63 kg/l (13.6 lb/gal)	
VOC	2.75 lb/gal (330 g/lt)	EPA Method 24
	201 g/kg	EU Solvent Emissions Directive (Council Directive 2010/75/EU)
	292 g/lt	Chinese National Standard GB23985

See Product Characteristics section for further details

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 8504:2019.

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

Abrasive Grit Blast Cleaning
Abrasive grit blast clean to Sa2½ (ISO 8501-1:2007) or SSPC-SP6. If oxidation has occurred between blasting and application of Intercure 420, 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 50-75 microns (2-3 mils) is recommended.

Primed Surfaces
All suitable primers for use under Intercure 420 should be applied over grit blast cleaned surfaces to Sa2½ (ISO 8501-1:2007) or SSPC-SP6.

A sharp, angular surface profile of 50-75 microns (2-3 mils) is recommended.

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

If the shop primer shows extensive or widely scattered breakdown overall grit sweep blasting may be necessary.

If the shop primer was applied over shot blasted surfaces, overall grit sweep blasting will be necessary prior to application of Intercure 420.

Metallic Zinc Primed Surfaces
Ensure that the surface of the primer is clean, dry and free from contamination and zinc salts before application of Intercure 420. Ensure zinc primers are fully cured before overcoating.
If the zinc primer was applied over shot blasted surfaces, overall grit sweep blasting will be necessary prior to application of Intercure 420.

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

3 part(s) : 1 part(s) by volume

Working Pot Life

5°C (41°F)	15°C (59°F)	25°C (77°F)	40°C (104°F)
8 hours	4 hours	2 hours	45 minutes

Airless Spray	Recommended	Tip Range 0.43-0.53 mm (17-21 thou) Total output fluid pressure at spray tip not less than 176 kg/cm² (2503 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 75 microns (3.0 mils) can be achieved
Roller	Suitable - small areas only	Typically 50-75 microns (2.0-3.0 mils) can be achieved
Thinner	International GTA220 (or International GTA415)	Thinning is not normally required. Consult the local representative for advice during application in extreme conditions. Do not thin more than allowed by local environmental legislation.

Cleaner

International GTA822 (or International GTA415)

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.

PRODUCT CHARACTERISTICS

Low Temperature Curing

Intercure 420 is capable of curing at temperatures below 0°C (32°F). However, this product should not be applied at temperatures below 0°C (32°F) where there is a possibility of ice formation on the substrate.

For further details regarding cure times and overcoatability, please contact International Protective Coatings.

This product must only be thinned using recommended International thinners. The use of alternative thinners, particularly those containing ketones, can severely inhibit the curing mechanism of the coating.

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

In common with all epoxies Intercure 420 will chalk and discolour on exterior exposure. However, these phenomena are not detrimental to anti-corrosive performance.

This product is frequently used as a 'travel coat' prior to final overcoating on site. To ensure best extended overcoating properties ensure over-application does not occur and that the surface is fully cleaned of any contamination which may be present in the surface texture due to the coarse nature of the micaceous iron oxide pigmentation.

As with all products with high micaceous iron oxide levels, only relatively dark colours can be formulated, consequently with some colours of thin film finishes two coats may be needed to give good coverage.

Absolute measured adhesion of topcoats to aged Intercure 420 is less than that to fresh material, however, it is adequate for the specified end use.

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

Please consult International Protective Coatings for specific information regarding application to prefabrication primers.

The following primers are recommended for Intercure 420:

Intercure 200
Intergard 251
Intergard 269
Interzinc 22 * (mist coat or tie coat may be required)
Interzinc 52
Interzinc 315

The following topcoats are recommended for Intercure 420:

Interfine 629HS
Intergard 740
Interthane 990

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

See relevant product data sheet for details.

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	15 litre	20 litre	5 litre	5 litre
4 US gal	3 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 litre	29.5 kg	5.2 kg
4 US gal	49.4 lb	8.8 lb

STORAGE

Shelf Life	12 months minimum at 25°C (77°F). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition.

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.

This Technical Data Sheet is available on our website at www.international-marine.com or 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.

Issue date: 15/04/2024

Copyright © AkzoNobel, 15/04/2024.

All trademarks mentioned in this publication are owned by, or licensed to, the AkzoNobel group of companies.

www.international-pc.com