Interchar® 3120

Modified Epoxy Intumescent

PRODUCT DESCRIPTION

Interchar 3120 is a versatile, two-component, modified epoxy intumescent coating for cellulosic fire protection, providing a high quality, cosmetically appealing finish.

Interchar 3120 is a low VOC and boron-free coating designed to provide fire protection to structural steelwork.

Independently tested, assessed and certified this product is suitable for use on both open and closed structural sections.

Interchar 3120 is a spray applied material and does not require any form of reinforcement.

INTENDED USES

To assist in preserving the structural integrity of steelwork in a cellulosic fire situation. Typical structures requiring this protection include a wide range of commercial, industrial, public and transport buildings e.g. airport terminals, leisure facilities, convention centres, high-rise buildings, educational facilities, shopping malls, industrial complexes and hotels.

Interchar 3120 utilises durable epoxy technology to provide a material that allows steelwork to be fabricated and fire-protected away from the construction site.

Interchar 3120 has been designed to be extremely versatile and can be used direct to metal or over approved primers.

In addition, Interchar 3120 can also be applied using single leg or plural spray equipment on 'I' sections, hollow sections and cellular beams.

PRACTICAL INFORMATION FOR INTERCHAR 3120

Colour	Light Grey (Part A - Black; Part B - White)
Gloss Level	Semi-gloss
Volume Solids	100% (measured according to ISO 3233)
Typical Thickness	Depends on the level of fire protection required. Normally in the range of 0.5mm to 8mm (with typical thickness of 2mm per coat)
Theoretical Coverage	1kg of Interchar 3120 will provide 1mm of fire protection to 0.725m²
Practical Coverage	Allow appropriate loss factors
Method of Application	Airless Spray

Drying Time

			Overcoating interval with self	
Temperature	**Touch Dry**	**Hard Dry**	*Minimum*	*Maximum*
10°C (50°F)	16 hours	33 hours	6 hours	Extended[1]
15°C (59°F)	16 hours	22 hours	6 hours	Extended[1]
25°C (77°F)	7 hours	16 hours	6 hours	Extended[1]
40°C (104°F)	3 hours	4 hours	6 hours	Extended[1]

[1] See International Protective Coatings Definitions and Abbreviations
All drying time data has been quoted at typical thickness of 2mm d.f.t.

REGULATORY DATA

Flash Point (Typical)	Part A >111°C (232°F); Part B >111°C (232°F); Mixed >111°C (232°F)	
VOC	0.17 lb/gal (21 g/lt) 0 g/kg	EPA Method 24 EU Solvent Emissions Directive (Council Directive 2010/75/EU)

Coating hazard marker GB 30981.2-S-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.

Steel surfaces must be abrasively blast cleaned and suitably primed. Blast cleaning should be carried out to a minimum of Sa2½ (ISO 8501-1:2007) or SSPCSP6. The blast profile should be a minimum of 50 microns (2 mils) for steel substrates. Primer selection is based upon the final environment to which the fire protection system will be exposed.

Interchar 3120 can be applied directly to blast cleaned steel substrates for some service environments - see advice from International Protective Coatings. Surfaces should be prepared by blast cleaning to a minimum of Sa2½ (ISO 8501-1:2007) or SSPC SP6. A blast profile of minimum 50 microns (2 mils) must be achieved. Application should proceed before oxidation of the blast cleaned surface occurs.

Interchar 3120 can also be applied to galvanised steel substrates. Surfaces should be prepared by sweep abrasive blasting to provide a roughened surface, to a standard similar to Sa 1 (ISO 8501-1), SSPC-SP7 or NACE No. 4. Typically a profile of 12-25 microns (0.6-1.0 mils) is achieved by sweep blasting. An approved primer should be applied after sweep blasting.

Interchar 3120 is suitable for application directly over black steel substrates (ISO 8501/BS7079) for corrosive categories up to C3 (ISO 12944-2). Consult International Protective Coatings for further details.

APPLICATION

Mixing

If applying by airless spray or brush, it will first be necessary to thoroughly power mix a kit of Interchar 3120. Both components must have been stored for 24 hours at a minimum of 15°C (59°F) and fully power agitated before being mixed together.

Mix Ratio

2.5 part(s) : 1 part(s) by weight

Working Pot Life

20°C (68°F)	40°C (104°F)
45 minutes	30 minutes

Plural Component Airless Spray	Suitable	Heated plural equipment. Refer to Application Guidelines.
Airless Spray	Recommended	Single leg spray equipment with 70:1 pump Tip range 0.63 - 0.74mm (25-29 thou)
Brush	Suitable - small areas only	Recommended for small areas and repairs, multiple coats will be necessary to achieve the required dry film thickness.
Roller	Not recommended	
Thinner	International GTA007	Can be thinned by up to 8% by volume. For best results, consult the Interchar 3120 Application Guidelines.
Cleaner	International GTA822	

Work Stoppages

Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with International GTA822.

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

When applying Interchar 3120 in confined spaces ensure adequate ventilation.

Do not apply at steel or air temperatures below 5°C (41°F) or when relative humidity is above 85%. This product will not cure adequately below 5°C (41°). 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.

In common with all epoxies Interchar 3120 will chalk and discolour on exterior exposure. These phenomena are not detrimental to fire proofing performance. Where a durable cosmetic finish with good gloss and colour retention is required overcoat with recommended topcoats.

Where multi-coat systems are to be used, optimum intercoat adhesion is best achieved by keeping the overcoating interval as short as possible.

Interchar 3120 is tested and assessed in accordance with the following standards / guidance:

- BS 476 Parts 20-22 - ASFP Yellow Book Rev 5 assessed
- EN 13381-8 tested and assessed
- EN 13381-9 tested and assessed for cellular beams
- ASFP Yellow Book Rev 5 assessed for cellular beams
- Australian Standards AS 1530.4-2014 and AS 4100
- GB 14907-2018 (Consult AkzoNobel for GB specified projects)

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

Interchar 3120 has been tested as part of a coating system for use in fire situations over a wide range of approved priming systems.

Intercure 200HS	Intergard 2575
Intergard 251	Intergard 269
Intergard 2511	Interseal 1052
Intergard 251HS	Interseal 670HS
Intergard 2509	Interzinc 52

The following topcoats are recommended for Interchar 3120:

Interfine 1080
Interfine 878
Interfine 979
Interthane 870
Interthane 990
Interthane 990SG

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	
		Weight	Pack	Weight	Pack
	25 kg	17.86 kg	20 litre	7.14 kg	5 litre
	For availability of other pack sizes, contact AkzoNobel.				

SHIPPING WEIGHT (TYPICAL)	Unit Size	Part A	Part B
	25 kg	19.65 kg	7.69 kg

STORAGE	Shelf Life	18 months 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.

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