

Polyurethane

PRODUCT DESCRIPTION

A high performance, two-component chemically-cured aliphatic urethane gloss finish.

INTENDED USES

For use on properly prepared and primed steel, concrete or steel floors, masonry, drywall, plaster, metal, concrete block, galvanized, aluminium, poured concrete and glazed brick. Ideal for use on exterior or interior structural steel, piping, metal buildings, control cabinetry, conveyors, pumps, storage tank exteriors, motors, machinery, and transportation vehicles.

Can also be used in the hard service areas of food processing plants, dairies, schools, restaurants, hospitals, correctional facilities, factories, stadiums, arenas, and amusement parks.

PRACTICAL INFORMATION FOR DEVTHANE 389N

Colour	White and custom colours
Gloss Level	Gloss
Volume Solids	57% ± 3%
Typical Thickness	50-75 microns (2-3 mils) dry equivalent to 88-132 microns (3.5-5.3 mils) wet
Theoretical Coverage	11.40 m ² /litre at 50 microns d.f.t and stated volume solids 457 sq.ft/US gallon at 2 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

Temperature	Touch Dry	Hard Dry	Overcoating interval with self	
			Minimum	Maximum
-5°C (23°F)	8 hours	60 hours	60 hours	Extended ¹
5°C (41°F)	5 hours	24 hours	24 hours	Extended ¹
15°C (59°F)	150 minutes	10 hours	10 hours	Extended ¹
25°C (77°F)	90 minutes	6 hours	6 hours	Extended ¹
40°C (104°F)	60 minutes	3 hours	3 hours	Extended ¹

¹ See International Protective Coatings Definitions and Abbreviations

REGULATORY DATA

Flash Point (Typical)	Part A 34°C (93°F); Part B 49°C (120°F); Mixed 35°C (95°F)		
Product Weight	1.21 kg/l (10.1 lb/gal)		
VOC	3.50 lb/gal (420 g/l)	EPA Method 24	
See Product Characteristics section for further details			

Polyurethane

SURFACE PREPARATION

Surfaces must be dry, clean, free of oil, grease, form release agents, curing compounds, laitance, other foreign matter and be structurally sound. Remove all loose paint, mortar spatter, mill scale, and rust. Please see Systems Compatibility section for approved primers. To ensure optimum appearance, any primer or undercoat should be smooth and free of any surface defects such as runs, dry spray or heavy orange peel.

New Surfaces:

Steel

Apply over surfaces which have been suitably prepared and primed. Consult the relevant primer datasheet for advice on surface preparation requirements. Prime using: Bar-Rust 231, Bar-Rust 235 or Bar-Rust 233H.

Galvanised Steel and Aluminium

Remove dirt, grease, oil or other surface contamination by solvent cleaning or with Devprep 88 cleaner or other suitable cleaner, followed by a thorough water rinsing. Prime using: Devran 201H, Bar-Rust 235, Devran 203 or Devran 205.

Concrete Block

Remove loose aggregate and repair major voids. Fill with: Devran 220, Bar-Rust 231, Bar-Rust 235, Bar-Rust 233H or Tru-Glaze-WB 4015.

Concrete Floors, Poured Concrete

Cure at least 30 days. pH must be 10.0 or lower before painting. Acid etch or abrasive blast slick, glazed concrete or concrete with laitance. Prime using: Devran 220, Bar-Rust 231, Bar-Rust 235, Bar-Rust 233H thinned 25% with recommended thinner, Tru-Glaze-WB 4030 or Pre-Prime 167.

Drywall:

Prime with a premium acrylic latex vapor barrier primer sealer.

Previously Painted Surfaces:

Poorly adhering old coatings should be removed. Wash to remove contaminants. Rinse thoroughly with water and allow to dry. Dull glossy areas by light sanding. Remove all debris. Prime bare areas with primer specified under New Surfaces.

Fiberglass

Solvent wipe, scuff sand and solvent wipe again. Prime with Devran 201H epoxy.

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	6 part(s) : 1 part(s) by volume				
Working Pot Life	-5°C (23°F) 26 hours	5°C (41°F) 12 hours	15°C (59°F) 4 hours	25°C (77°F) 2 hours	40°C (104°F) 45 minutes
Airless Spray	Recommended	Tip Range 0.33-0.45 mm (13-18 thou) Total output fluid pressure at spray tip not less than 155 kg/cm ² (2204 p.s.i.)			
Air Spray (Conventional)	Recommended	See Product Characteristics section for further details			
Brush	Suitable				
Roller	Suitable				
Thinner	T-9 Thinner	See Product Characteristics section for further details			
Cleaner	T-9 Thinner				
Work Stoppages	Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with T-9 Thinner. 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 T-9 Thinner. 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.				

Polyurethane

PRODUCT CHARACTERISTICS

Advantages:

- Excellent gloss and colour retention
- Wide colour selection
- Easily applied by brush, roller or spray
- Excellent resistance to marring, chipping and scratching

Thinning is not normally required or desired, and excessive thinning can adversely affect application and appearance properties. However, at lower temperatures, small amounts (5% or less) of T-9 Thinner may be added depending on local VOC and air quality regulations. Small amounts (5% or less) of T-17 Thinner will improve roller, brush or spray application on hot substrates. For end uses such as transportation vehicles where the smoothest, orange peel-free appearance is desired, additional thinning may be needed.

Maximum continuous dry temperature resistance for Devthane 389N is 121°C (250°F). Exposure to continuous operating temperatures towards the maximum dry temperature resistance of this product may induce some discolouration, though the film will remain intact.

Devthane 389N may be tinted with industrial colourants; contact International Paint for further information. Add colourants only to the base portion and mix thoroughly before adding the converter portion.

For airless spray application: Ideally, fluid hoses should not be less than 3/8" ID and not longer than 50 feet to obtain optimum results. Longer hose length may require an increase in pump capacity, pressure, and/or thinning.

Care should be taken that proper and uniform film thicknesses are obtained. Brushing and rolling may require multiple coats to achieve correct film thickness and/or hiding.

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

When applying Devthane 389N in confined spaces ensure adequate ventilation.

Devthane 389N 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. Condensation occurring during or immediately after application may result in a matt finish and an inferior film. Premature exposure to ponding water will cause colour change, especially in dark colours and at low temperatures.

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.

SYSTEMS COMPATIBILITY

The following primers are recommended for Devthane 389N:

Bar-Rust 231	Cathacoat 313
Bar-Rust 233H	Devran 201H
Bar-Rust 235	Devran 203
Cathacoat 302H	Devran 261QC
Cathacoat 302HB	Tru-Glaze-WB 4015
Cathacoat 303H	Tru-Glaze-WB 4030

Polyurethane

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 Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data Sheet (MSDS) which International Protective Coatings has provided to its customers.

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 International Protective Coatings for further advice.

PACK SIZE	Unit Size	Part A		Part B	
		Vol	Pack	Vol	Pack
	1 US gal	0.86 US gal	1 US gal	0.14 US gal	1 US quart
	5 US gal	4.29 US gal	5 US gal	0.71 US gal	1 US gal
For availability of other pack sizes, contact International Protective Coatings.					
SHIPPING WEIGHT (TYPICAL)	Unit Size		Part A		Part B
	1 US gal		9.7 lb		1.6 lb
	5 US gal		48.7 lb		7.1 lb
STORAGE	Shelf Life		24 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.

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.

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