

RELEST® Wind WB Topcoat HB



Acrylic Polyurethane

PRODUCT DESCRIPTION

Product Code: I394-x5xx

RELEST Wind WB Topcoat HB is suitable for use outdoors and is characterised by its excellent weather resistance and levelling. A major advantage of this product is its application reliability at high film thicknesses >100µm dry film thickness.

INTENDED USES

Specifically designed for use on glass reinforced epoxy (GRE) composite for wind turbine blades. Suitable for use in both new construction and as a maintenance coating for the wind power industry.

PRACTICAL INFORMATION FOR RELEST WIND WB TOPCOAT HB

Colour	Wide range of colours available
Gloss Level	Eggshell
Volume Solids	46%
Typical Thickness	100-120 microns (4-4.8 mils) dry equivalent to 217-261 microns (8.7-10.4 mils) wet
Theoretical Coverage	3.83 m ² /litre at 120 microns d.f.t and stated volume solids 154 sq.ft/US gallon at 4.8 mils d.f.t and stated volume solids
Practical Coverage	Allow appropriate loss factors
Density	Mixed product density is approximately 1.25 g/cm ³ (depends on colour)
Method of Application	Conventional Spray, Modified Airless Spray, Roller
Drying Time	

Temperature	Touch Dry	Hard Dry	Overcoating Interval with recommended topcoats	
			Minimum	Maximum
18°C (64°F)	1.5 hours	12 hours	3 hours	8 hours
23°C (73°F)	1 hour	10 hours	2 hours	8 hours
35°C (95°F)	1 hour	8 hours	2 hours	8 hours

- Touch Dry and Hard Dry are equivalent to TG1 and TG7 respectively, according to ISO 9117-5
- Drying times will depend on the substrate temperature and ventilation.
- The figures quoted above have been determined at:
18°C / 30% RH 23°C / 65% RH 35°C / 85% RH

REGULATORY DATA

Flash Point (Typical)	Part A 90°C (194°F); Part B 90°C (194°F)	
Product Weight	1.25 kg/l (10.4 lb/gal)	
VOC	100 g/lit	Calculated
	80 g/kg	EU Solvent Emissions Directive (Council Directive 1999/13/EC)

See Product Characteristics section for further details

Protective Coatings

HB

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SURFACE PREPARATION

Surface Cleaning

All surfaces to be coated should be clean, dry and free from contamination. Oil or grease should be removed prior to paint application. The surfaces should be cleaned thoroughly of all dust, using a vacuum or clean dry compressed air to blow while wiping with clean, oil free, and dry cloths.

Sanding Preparation: Composite, Gelcoats and Putties

Always thoroughly clean the surfaces before sanding. When sanding or grinding, work in areas with adequate ventilation, maintaining a continuous flow of fresh air. Inadequate sanding may result in poor adhesion of RELEST Wind WB Topcoat HB to the surface. However, excessive sanding or using too coarse grit can open pores in the surface or create a sanding scratch profile too deep to be filled by RELEST Wind WB Topcoat HB. A sanding paper of grit 120-180 is recommended on the primer and filler surfaces. Ensure any remaining contamination, such as dust or coating / filler particles is removed from the surface by suitable means, prior to application of RELEST Wind WB Topcoat HB.

APPLICATION

Mixing

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) Agitate Curing Agent (Part B) with a power agitator.
- (3) Combine entire contents of the Curing Agent (Part B) with the Base (Part A) and mix thoroughly with the power agitator.

Insufficient manual mixing may lead to coating film defects. Ensure that the devices are clean during the application and that no air is stirred in during the mixing process. It is absolutely necessary to transfer the mixed material to another container prior to use. The ideal application viscosity depends on the local conditions and must be adapted accordingly.

The mixing method can have an influence on the gloss level of the final film.

Mix Ratio

Using Part B RELEST Hardener PUR 3494 (I385-3494):
 4.7 part(s) : 1 part(s) by volume
 5 part(s) : 1 part(s) by weight

Viscosity: 50-60 s, with a DIN 6 mm cup

Working Pot Life

18°C (64°F)	23°C (73°F)	35°C (95°F)
60 minutes	60 minutes	45 minutes

- The figures quoted above have been determined at:
 18°C / 30% RH 23°C / 65% RH 35°C / 85% RH

Airless Spray

Recommended

Air assisted airless spray Use suitable proprietary equipment

Tip Range 0.28-0.38 mm (11-15 thou)
 Total output fluid pressure at spray tip not less than
 80 kg/cm² (1138 p.s.i.)

Atomisation 1 - 3 bar

Air Spray (Conventional)

Recommended

Air Cap 1.5 - 2.0 mm
 Atomisation 1 - 3 bar

Roller

Recommended

Thinner

Clean Water

Cleaner

RELEST Thinner W 900

Work Stoppages

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

All surplus materials and empty containers should be disposed of in accordance with appropriate regional regulations/legislation.

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PRODUCT CHARACTERISTICS

When applying RELEST Wind WB Topcoat HB by roller, it may be necessary to apply multiple coats to achieve the total specified system dry film thickness.

Level of sheen and surface finish are dependent on application method. Avoid using a mixture of application methods whenever possible.

Applications where relative humidity is below 30% may result in foaming on the surface of the coating. This is most likely with roller application. This phenomenon may be eliminated by the addition of RELEST Wind Antifoaming Agent I109-0394 (0.5% addition to RELEST Wind WB Topcoat HB Part A).

When applying RELEST Wind WB Topcoat HB in confined spaces ensure adequate ventilation.

Condensation occurring during or immediately after application may result in a matt finish and an inferior film.

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

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

For suitable primers/intermediates, consult your local representative.

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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

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 your local representative for further advice.

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

PACK SIZE

SHIPPING WEIGHT (TYPICAL)

STORAGE

Shelf Life

18 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.

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