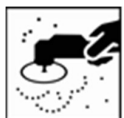


VC-221 2:1 CLEARCOAT

The Valorem VC-221 Clearcoat system is a high-solids acrylic urethane clearcoat optimized for force curing. It uses a simple 2:1 mix ratio and delivers a long-lasting finish perfect for spraying over small or large areas in various temperature ranges.

**SAFETY CONSIDERATIONS**

- Use suitable personal protection.
- When exposed to paint or solvents AkzoNobel recommends the use of a fresh air supply respirator.

**SURFACE ABRADING**

- Valorem Basecoat
 - Observe the indicated flash time of the basecoat TDS before clearcoat application.
- Existing Clearcoat
 - Thoroughly sanded with #P1000 dry or a gray scuff pad.

**SURFACE CLEANING**

- Use suitable surface cleaners and technique to ensure a clean surface

**MIXING STICK**

Mix	Standard Mix
2	Parts VC-221F and/or VC-221S Clearcoat*
1	Part VH-222 Clearcoat Hardener

BY VOLUME

*Combine Panel (VC-221F) and Overall (VC-221S) Clearcoats to adjust for spray conditions and repair size

**EQUIPMENT****Spray-Gun Set-Up:**

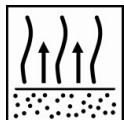
- 1.3 – 1.5 mm HVLP Gravity
- 1.3 – 1.5 mm Compliant Gravity

Application Air Pressure:

- HVLP – 10 psi (<0.7 bar) at cap maximum
- Consult manufacturer specifications

**APPLICATION**

- Apply 2 single wet coats
 - Observe proper flash between coats

**FLASH OFF****Flash at 70°F (21°C) Between Coats**

- 5-10 minutes

Flash at 70°F (21°C) Before Force Drying

- 5 minutes

**DRYING****Drying at 70°F (21°C)**

- 5 – 7 hours depending on mixture*

Force Drying at 140°F (60°C)

- 15 – 35 minutes depending on mixture*

*Refer to drying section in TDS.

**RECOATING**

- May be recoated after a full drying cycle.
 - After 12 hours, the surface must be abraded before recoating.

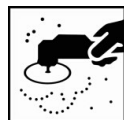
Read the complete TDS and the product Safety Data Sheet (SDS) for detailed product information

VC-221 2:1 CLEARCOAT**DESCRIPTION**

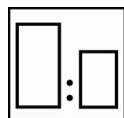
The Valorem VC-221 Clearcoat system is a high-solids acrylic urethane clearcoat optimized for force curing. It uses a simple 2:1 mix ratio and delivers a long-lasting finish perfect for spraying over small or large areas in various temperature ranges.

**PRODUCT ASSORTMENT**

- Valorem VC-221F 2:1 Clearcoat Panel – Item #594472 (Gallon)
- Valorem VC-221S 2:1 Clearcoat Overall – Item #594495 (Gallon)
- Valorem VH-222 2:1 Clearcoat Hardener – Item #594463 (Gallon)
- Valorem VX-700 Accelerator – Item #595118 (250 ml)
- Valorem VX-600 Flex Additive – Item #595119 (Quart)
- Stock unopened or used products in approved closed containers with proper labeling. Store in moderate temperatures between 70°F - 95°F (21°C – 35°C). Avoid too much temperature fluctuation. Optimum storage temperature is approximately 77°F (25°C).
- Shelf life (VC-221F, VC-221S, VH-222) – 1 year
 - Refer to the price list for the most up-to-date product shelf-life information.

**SURFACE PREPARATION**

- Refinish Basecoat – Observe the indicated flash time of the basecoat TDS before clearcoat application.
- Existing Clearcoat – Thoroughly abraded with #P1000 dry or a gray scuff pad.
– Use suitable surface cleaners and technique to ensure a clean surface.



BY VOLUME

MIXING – Standard**Mix**

- 2** Parts VC-221F and/or VC-221S Clearcoat
1 Part Valorem VH-222 Hardener

Note: VC-221F Panel and VC-221S Overall Clearcoats may be mixed to accommodate spraying conditions and repair size.



BY VOLUME

MIXING – Accelerated**Mix**

- 2** Parts VC-221F and/or VC-221S Clearcoat
1 Part Valorem VH-222 Hardener

**1/2 oz per
RTS Quart
(maximum)** Valorem VX-700 Accelerator



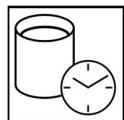
BY VOLUME

MIXING – Flexible Substrates**Mix**

- 100** Parts VC-221F and/or VC-221S Clearcoat
5 Parts Valorem VX-600 Flex Additive

Stir thoroughly then mix:

- 2** VC-221 Clearcoat + VX-600 Flex Additive mixture
1 VH-222 Hardener

VC-221 2:1 CLEARCOAT**POT-LIFE AT 70°F (21°C) WHEN MIXED**

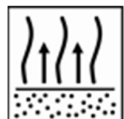
- 1.5 - 2 hours
 - A shorter pot life can be expected at higher temperatures and when using accelerator.

**SPRAY-GUN SET-UP****HVLP or Compliant Spray-Gun Set-Up: Application Air Pressure:**

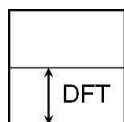
- 1.3 – 1.5 mm HVLP Gravity
- 1.3 – 1.4 mm Compliant Gravity
- HVLP – 10 psi (<0.7 bar) at cap maximum
- Consult manufacturer specifications.

**APPLICATION**

- Apply 2 single wet coats
 - Flash dry between coats

**FLASH DRYING****Flash at 70°F (21°C) Between Coats****Flash at 70°F (21°C) Before Force Drying**

- 5-10 minutes
- 5 minutes
- ✓ Flash time is dependent on temperature and application.

**FILM THICKNESS**

- Properly applied, one coat will achieve a thickness of 1.2-2.0 mils (30-50µm).
 - Minimum dry film thickness over basecoat is 2.4 mils (61µm)

**DRYING / CURING TIME AT 70°C (21°C) OBJECT TEMPERATURE**

Mix	No Accelerator		Accelerated ½oz. VX-700 per RTS quart.	
	Dust Free	Dry to Handle	Dust Free	Dry to Handle
VC221-S	1 hour	7 hours	1 hour	4.5 hours
VC-221F	45 min	5 hours	40 min	3.5 hours
50/50 Mix	50 min	6 hours	1 hour	4 hours

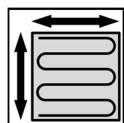
**DRYING / CURING TIME AT 140°C (60°C) OBJECT TEMPERATURE**

Mix	No Accelerator		Accelerated ½oz. VX-700 per RTS quart.	
	Dust Free	Dry to Handle	Dust Free	Dry to Handle
VC221-S	20 min	35 min	20 min	25 min
VC-221F	10 min	20 min	10 min	15 min
50/50 Mix	15 min	30 min	15 min	20 min

- Drying times are stated a recommended application method, film thickness and object temperature. Drying temperatures are provided for metal or object temperature.

VC-221 2:1 CLEARCOAT**RECOAT INFORMATION**

- May be recoated after a full drying cycle.
 - After 12 hours, the surface must be abraded before recoating.

**THEORETICAL COVERAGE**

- With the recommended application the theoretical coverage is ≈ 640 feet²/gallon (15.7 m²/liter) at a 1 mil thickness (25.4 μ m).
- Actual coverage is dependent on many factors which may include the shape of the object, surface smoothness, application technique, and other application variables.

**VOC / REGULATORY INFORMATION**

Notice: Do not handle until the Safety Data Sheets have been read and understood. Regulations require that all employees be trained on Safety Data Sheets for all chemicals with which they come in contact. The manufacturer recommends the use of an air-supplied respirator when exposed to vapors or spray mist.

Valorem VC-221 2:1 Clearcoat Ready to spray VOC:

- The VOC content of this product (2:1) ratio in ready to use form is < 4.1 lb/gal (<495 g/L)

AkzoNobel Inc., North America
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Tel: 800.618.1010

FOR PROFESSIONAL USE WITH SUITABLE HSE EQUIPMENT

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Safety Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (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 otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advices given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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