VALOREM

PROGRAMMED SYSTEM TECHNIQUE (PST)
CLEARCOATS
NORTH AMERICA

VC-421 4:1 CLEARCOAT

VC-421 4:1 Clearcoat is an economical clearcoat with high-speed drying capability, great durability, and advanced gloss retention. Using a simple 4:1 mix ratio, this easy-to-use clear is known for its fantastic sprayability and ability to deliver a stunning final appearance.



SAFETY CONSIDERATIONS

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



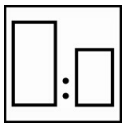
SURFACE ABRADING

- 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



BY VOLUME

MIXING STICK

Mix	Standard Mix
4	Parts VC-421 4:1 Clearcoat
1	Part VH-421 Hardener (Fast, Medium, or Slow)



EQUIPMENT

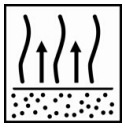
Spray-Gun Set-Up:
- 1.4 – 1.5 mm HVLP Gravity
- 1.3 – 1.4 mm Compliant Gravity

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



APPLICATION

- Apply 2 to 3 wet flowing coats
  - Observe proper flash between coats



FLASH OFF

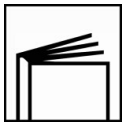
Flash Between Coats at 70°F (21°C)
- 5 minutes

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



DRYING

Hardener Selected	Air drying at 70°F (21°C)	Force Drying at 140°F (60°C)
• Slow	– 16 hours	– 35 minutes
• Medium	– 12 hours	– 30 minutes
• Fast	– 8 hours	– 25 minutes



RECOATING

- May be recoated with itself after a full drying cycle for up to 24 hours without sanding.
  - After 24 hours, the surface must be abraded before recoating.

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

VALOREM

TECHNICAL DATA SHEET (TDS)
CLEARCOATS
NORTH AMERICA

VC-421 4:1 Clearcoat

DESCRIPTION

VC-421 4:1 Clearcoat is an economical clearcoat with high-speed drying capability, great durability, and advanced gloss retention. Using a simple 4:1 mix ratio, this easy-to-use clear is known for its fantastic sprayability and ability to deliver a stunning final appearance.



PRODUCT ASSORTMENT

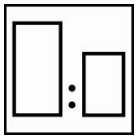
- Valorem VC-421 4:1 Clearcoat
  - Item #594470 (Gallon)
  - Item #594460 (Quart)
- Valorem VH-42170 4:1 Hardener Fast
  - Item #594459 (Quart)
- Valorem VH-42180 4:1 Hardener Medium
  - Item #594458 (Quart)
- Valorem VH-42190 4:1 Hardener Slow
  - Item #595118 (250 ml)
- Valorem VX-700 Accelerator
  - Item #595119 (Quart)
- Valorem VX-600 Flex Additive

- 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-421 Clearcoat (2 years), VH-421 Hardeners (1 year).
  - Refer to the price list for the most up-to-date 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

Mix	Standard Mix
4	Parts Valorem VC-421 4:1 Clearcoat
1	Part VH-421 Hardener (Fast, Medium, or Slow)

✓ May be accelerated with a maximum of 3-4 grams of VX-700 Accelerator per ready to spray quart.



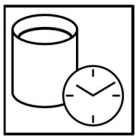
BY VOLUME

MIXING – FLEXIBLE SUBSTRATES

Mix	– Step 1
100	Parts Valorem VC-421 4:1 Clearcoat
15	Parts Valorem VX-600 Flex Additive

✓ Stir this mixture well, **THEN:**

Mix	– Step 2
4	Parts Flexed Mixture from Step 1
1	Part VH-421 Hardener (Fast, Medium, or Slow)



POT-LIFE WHEN MIXED

Hardener Selection	70°F (21°C)	VX-700 Accelerator
• VC-42190 (Slow)	– 3 hours	– 2 hours
• VC-42180 (Medium)	– 3 hours	– 1 ½ hours
• VC-42170 (Fast)	– 2 hours	– 1 hour



SPRAY-GUN SET-UP

HVLP or Compliant Spray-Gun Set-Up:
- 1.4 – 1.5 mm HVLP Gravity
- 1.3 – 1.4 mm Compliant Gravity

Application Air Pressure:
- HVLP – 10 psi (<0.7 bar) at cap maximum
- Consult manufacturer specifications.



APPLICATION
- Apply 2 to 3 wet flowing coats
  - Flash dry between coats



FLASH DRYING

Flash Between Coats at 70°F (21°C)
- 5 minutes

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

✓ Flash time is dependent on temperature and application.



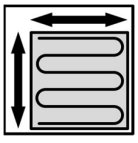
DRYING / CURING TIME

Hardener Selected	Air drying at 70°F (21°C)	Force Drying at 140°F (60°C)
• VH-42190 (Slow)	– 16 hours	– 35 minutes
• VH-42180 (Medium)	– 12 hours	– 30 minutes
• VH-42170 (Fast)	– 8 hours	– 25 minutes

✓ Using VX-600 Flex Additive will extend the cure times and affect the sanding and polishing characteristics.



RECOATING
- May be recoated with itself after a full drying cycle for up to 24 hours without sanding.
  - After 24 hours, the surface must be abraded before recoating.



THEORETICAL COVERAGE
- With the recommended application the theoretical coverage is ±720 feet^2/gallon (17.7 m^2/liter) at a 1 mil thickness (25.4 µm).
- 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-421 4:1 Clearcoat Ready to spray VOC:

- The VOC content of this product (4:1) ratio in ready to use form is ≤4.0 lb/gal (≤476 g/L).

AkzoNobel Inc., North America
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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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