



## D9N Series SUMMIT™ Neutral Conversion Varnish

D9N Series SUMMIT™ is a line of solvent borne, two component, alkyd/amino resin based neutral conversion varnishes. They feature fast dry, outstanding chemical/moisture resistance and exceptional build. They are specifically designed to be used in conjunction with 844 series colourants to achieve deep or mid-tone colours and are not to be used untinted. This product line is especially suited for high demand applications such as kitchen and bath cabinets and institutional grade furniture.

### SUGGESTED APPLICATIONS

- Interior trim and millwork
- Office furniture
- Household furniture
- Cabinets
- Kitchen and bath components
- High demand furniture

### KEY PERFORMANCE FEATURES

- Excellent hiding
- High build
- Outstanding mar and scratch resistance
- Ultra-low formaldehyde
- Outstanding chemical and moisture resistance
- Excellent flow and levelling
- Meets CKCA (2017) KCMA/ANSI 161.1 Standards
- Exceeds NAAWS System #5 Varnish Conversion standards

### RELATED PRODUCTS

D17 DURAPRIME™ Neutral Post-Catalyzed Primer  
 D28 DURAPRIME™ White Post-Catalyzed Primer  
 D28HH DURAPRIME™ High Hide White Post-Cat Primer  
 DX48 Extend-Prime™ Extended Pot-life Post-Cat Primer  
 844 Chroma Chem Colourants

### PHYSICAL PROPERTIES

Available Sheens	5, 15, 25, 35, 70
Weight Solids	52% ± 2
Volume Solids	43% ± 2
Viscosity	60-90" @ 25°C Ford 4
Specific Gravity	1.0167 +/- 0.01 gms/cc @ 25°C
VOC	488 g/l
Typical coverage	10-12 m <sup>2</sup> / ltr @ 1 mil dry

### ADDITIONAL CHARACTERISTICS

Catalyzation	10% by volume 1CAT Catalyst
Pot-Life	8-12 hrs at room temp.
Reduction	10% by volume T4409 Lacquer Thinner
Retarder	n/a
Clean-up	CA4420 Gun Wash
Shelf-life	1 year from date of manufacture

### Dry Times

26°C (~78°F) 50% RH	
To Touch	10 minutes
To Sand	30-60 minutes
To Stack/Pack	24 hours

Note: Drying times will decrease at higher temperatures/lower humidity and will increase at lower temperatures/high humidity

**COLOUR DEVELOPMENT** – D9N Series SUMMIT™ products require tinting with an approved colourant system. They are not to be used untinted as a clear topcoat. This product is designed to achieve mid to deep opaque colours. D9N should be tinted with 844 series colourants up to a maximum of 10% by volume.

**COATING PREPARATION** – After product is tinted, ensure product is stirred well and brought to room temperature before use. Add 10% 1CAT Acid Catalyst by volume slowly, under agitation (prior to reduction). Pot life is 8 to 12 hours at room temperature. D9N series products normally require 10% (volume) reduction with T4409 Slow Lacquer Thinner for spray application.

**SURFACE PREPARATION** - Wood surface should be clean, dry and free from any oil or grease. Moisture content of the wood should be 7-9%.

**APPLICATION** – Prime the entire substrate with selected KCI Primer D28/D28HH/D17 DURAPRIME™ at 4 to 5 wet mils and

allow to dry 30-60 minutes. Sand entire surface with 240-320 grit sand paper. NOTE: If the primer coat is aged longer than 2 hours it should be sanded just prior to application of topcoat. Apply a full uniform coat of D9N series topcoat at a rate of 4 to 5 mils wet. Dry for 1-2 hours at room temperature and sand the entire surface with 240-320 grit sand paper. Apply a second thin coat at 3 to 4 wet mils. Total film thickness of the finished system (primer and topcoat) should not exceed 5 dry mils.

**SAFETY** – During application, always wear eye protection, gloves and appropriate work clothing to minimize contact. Use a respirator and safety glasses at all times when spraying. Explosion proof ventilation is required with special consideration for enclosed or confined areas. Use caution when handling flammable liquids and eliminate sources of ignition and uncovered containers from the work place. Vapours formed from this product may travel or be moved by air currents and ignited by pilot lights, light switches, other flames, smoking, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from the product.

## D9N Series SUMMIT™ Neutral Conversion Varnish (cont'd)

### PERFORMANCE TESTING / FILM CHARACTERISTICS

All performance testing is based on a composite of ASTM, AWI, ANSI and KCMA Standards

#### KCMA Testing (ANSI/KCMA A161.1.1.2000)

Test samples consist of solid red oak coated at 4 mils dry and aged for 21 days at room temperature

#### A. Chemical Testing

- Vertical position for 24 hrs, water washed, dried, examined

Vinegar	Pass
Orange Juice	Pass
Ketchup	Pass
Olive Oil	Pass
Mustard	Pass
Lemon Juice	Pass
Grape Juice	Pass
Coffee	Pass
100 Proof Alcohol	Pass

#### B. Detergent & Water Resistance Test

- PASS: No signs of blistering, whitening, delamination, swelling

#### C. Heat Resistance Test

- PASS: No signs of discolouration, whitening, delamination or swelling

#### D. Hot/Cold Cycle Test

- PASS: 10 cycles with no signs of discolouration, blistering, cold cracking or any film failure

#### Hot Print Resistance (ASTM D 2091-96)

- Test samples consisted of 1 mil dry film aged for 24 hours at room temperature prior to print testing
- Duck cloth under a weight of 4 psi was then placed on dry film surface for a defined temperature/time
 

72F (18 hrs) 4 psi:	pass
120F (1 hr) 4 psi:	pass
140F (1 hr) 4 psi:	pass

#### Hot/Cold Cycling Test (ASTM D 1211-97)

- Test samples were coated on red oak at 4 mils dry and aged 21 days at room temperature prior to testing
- One cycle consisted of:
  - 120F / 70% RH for 1 hour
  - Room temperature for 1 hour
  - 5F for 1 hour
- Specimens examined for discolouration, blistering, cold cracking and film failure
- No signs of failure at 10 cycles

#### Flammability Testing (ASTM E 84-08a) Surface Burn Rating

- Test samples consisted of fiberglass reinforced cement board coated with 4 mils dry of D9N Series SUMMIT™
- Samples were aged for 21 days at room temperature prior to testing
- Flame Spread Index: 5.0 Class 1 / Class A
- Smoke Development: 5.0 Class 1 / Class A

#### AWMAC / AWI (NAAWS Performance Standards Testing)

System # 5 Conversion Varnish (Opaque):

- Standard Score - 129/135
- D9N Series score - 130/135

#### Section A: Chemical Resistance Testing ASTM D1308

Vinegar	5	Red Wine	5
Lemon Juice	5	Windex	5
Orange Juice	5	Fantastic 409	5
Ketchup	5	Lysol	5
Coffee	5	33% Sulphuric Acid	5
Olive Oil	5	77% Sulphuric Acid	1
Boiling Water	5	28% Na <sub>4</sub> OH	5
Cold Water	5	Gasoline	5
Nail Polish Remover	5	Murphy's Oil Soap	5
Household Ammonia	5	Vodka 100% Proof	5
VM&P Naphtha	5	1% Detergent	5
Isopropyl Alcohol	5	10% TSP	5

Rating: 1: Poor 2: Fair 3: Good 4: Very good 5: Excellent

#### Section B: Wear Resistance / ASTM D4060 Abrasion Resistance

Rating: 4/5

#### Section C: Cold Check Resistance / ASTM D1211

Rating: 5/5

#### Section D: Cross Hatch Adhesion / ASTM D3359

Rating: 5/5

**TOTAL SCORE: 130/135**

**DISPOSAL** - Disposal of chemicals and their solutions should be done according to local, provincial and federal regulations. Safety Data Sheets are available and should be consulted when handling products. These products are for industrial and professional use only; Application directions must be followed.

**WARRANTY** – Katilac Coatings Inc. warrants that its products are free from defects in manufacture for a period of one (1) year from date of purchase, if used prior to expiration date and applied and used in accordance with Katilac Coatings' most current published specifications applicable to such products. Katilac Coatings Inc. expressly disclaims all other warranties, express or implied, including the implied warranties of merchantability and fitness for purpose. Katilac Coatings Inc. disclaims all liability for incidental, consequential or indirect damages of any nature whatsoever. This warranty cannot be changed or modified whether by course of dealing, custom or trade or otherwise, unless agreed to in writing by Katilac Coatings Inc.



Ver12/19 Supersedes all previous versions.  
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