



**In Union,  
there is strength.**



## UNITHANE IC-151 NF

Revision Date: 06/21

Reviewed:06/21/21

### RECOMMENDED FOR USE WITH:

Paint and Coating Resins

UNITHANE IC-151 NF is an anionic APEO free dispersion of an aliphatic polyester-based urethane in water. UNITHANE IC-151 NF is designed for industrial coating applications requiring good gloss, chemical resistance and adhesion to a variety of substrates.

### Application:

UNITHANE IC-151 NF polyurethane dispersion can be compounded for a number of industrial coating applications: including clear, hard coatings for plastics, untreated aluminum, treated steel and concrete floor coatings.

The performance of UNITHANE IC-151 NF can be further enhanced by blending with other Union polyurethane dispersions or by the use of external crosslinking like: polyfunctional aziridines, water dispersible isocyanates or polyfunctional carbodiimides.

### SPECIAL FEATURES

NMP-Free (NF)

### APPLICATION TYPES

Interior, Exterior, Flooring, Wood, Concrete, Paint, Metal, Graphic Arts, OPV, Paper, Plastics - Rigid

### TYPICAL SPECIFICATIONS

**TOTAL SOLIDS:** 31 - 33

**PH:** 8.0 - 10.0

**VISCOSITY @ 25 DEGREES C:** 10-150 cps.

**VOC (GRAMS/LITER):** 102-104

**VOC (% OF TOTAL WEIGHT):** 9.0-11.0

**SPECIFIC GRAVITY:** 1.03-1.06

**APPEARANCE:** Semi-translucent

**GLOSS @60°:** 80-100

**FREEZE/THAW CYCLES D2243:** 3+ cycles

**SHELF LIFE:** Maximum 12 months

**HARMONIZE TARIFF NUMBER:** 3909.50.6000

*note: 5= no damage, films dried for 15 minutes at 80°C,  
then equalized at room temp for 7 days*

**WATER:** 5

**ACETIC ACID:** 5

**AMMONIA:** 5

**METHYL ETHYL KETONE:** 5

**2-PROPANOL:** 5

**TOLUENE:** 5

**GASOLINE:** 5

### TYPICAL FILM PROPERTIES

**FILM APPEARANCE AFTER CURING:** Clear

**TENSILE (D-882):** 3000 psi

**TENSILE AT 100% ELONGATION:** n/a

**ELONGATION (D-882):** 50%

**COLD CRACK (ISO 17233):** 5°C

**SOFTENING POINT:** 175°C

**PENCIL HARDNESS (D-3363):** 4B

**SWARD HARDNESS (D-2134):** 32

**UV RESISTANCE (D-4587):** No Damage (1000 hours at 340 nm)

**IMPACT RESISTANCE (D-2794):** Damage at 160 psi (Direct or Reverse)

**TABOR ABRASION (D-4060):** 20 mg loss (CS-10, 1000 cycles)

**MANDREL BEND (D522):** Cracked @ 1/8

**DRY TIME (D-5895):** 30 minutes

**HYDROLYSIS RESISTANCE (200 HOURS, 70°C, 95% RH):** Retained 90% of Tensile Properties

**COLD ROLL STEEL - UNPOLISHED:** 5B

**ALUMINUM - UNTREATED:** 5B

**BRASS - UNTREATED:** 5B

**ABS - UNTREATED:** 5B

**POLYCARBONATE - UNTREATED:** 5B

**NYLON - UNTREATED:** 5B

**HDPE - UNTREATED:** 0B

**Certified to ISO-9001: 2015**

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