



**In Union,
there is strength.**



UNITHANE HS-18

Revision Date: 08/19

RECOMMENDED FOR USE WITH:
Leather

UNITHANE HS-18 is a newly developed, high solids (45%), pure waterbased aliphatic polyurethane resin designed as a basecoat to give excellent fill and coverage. UNITHANE HS-18 forms a very soft, flexible polymer film with low surface tack and excellent print retention and cut-thru resistance. This resin is unique in the fact that it has 100% recovery after 1000% elongation, which provides excellent elasticity and "finish memory", when used as a basecoat on split and grain leathers.

UNITHANE HS-18 is designed as a high solids, filling basecoat. This may reduce the number of total coats needed for finishing and lead to reduced cycle times and more efficient manufacturing. UNITHANE HS-18 has excellent flexing properties to include dry, wet and cold flex (-20°C) as well as cold impact testing at -30°C.

Suggested application method is to roll coat. For starting point formula, contact your Union Specialties Inc. representative.

SPECIAL FEATURES

NMP-Free (NF), Low VOC (<100 g/L)

APPLICATION TYPES

Splits

TYPICAL SPECIFICATIONS

TOTAL SOLIDS: 44.5 - 46.5

pH: 8.5 - 10.5

VISCOSITY @ 25 DEGREES C: 500 - 800 cps

VOC (GRAMS/LITER): 28.06

VOC (% OF TOTAL WEIGHT): 2.81

SPECIFIC GRAVITY: 1.03

APPEARANCE: Opaque

GLOSS @60°: 30 - 80

FREEZE/THAW CYCLES D2243: 0

SHELF LIFE: Maximum 12 months

MIX WELL BEFORE USING

HARMONIZE TARIFF NUMBER: 3909.50.6000

CHEMICAL RESISTANCE TESTING (D-1308)

*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: 4

METHYL ETHYL KETONE: 2

2-PROPANOL: 3

TOLUENE: 5

GASOLINE: 5

TYPICAL FILM PROPERTIES

FILM APPEARANCE AFTER CURING: Clear

TENSILE (D-882): 1430 psi

TENSILE AT 100% ELONGATION: 415 psi

ELONGATION (D-882): 620%

COLD CRACK (ISO 17233): below -30°C

SOFTENING POINT: 125°C

PENCIL HARDNESS (D-3363): 4H

SWARD HARDNESS (D-2134): 5.72

IMPACT RESISTANCE (D-2794): No damage at 160 psi (Direct and Reverse)

MANDREL BEND (D522): Pass 1/8, 1/4, 3/8, 1/2, 5/8, 3/4, 1

DRY TIME (D-5895): 60 min

HYDROLYSIS RESISTANCE (200 HOURS, 70°C, 95% RH): Retained 84% of Tensile Properties

VARIOUS SUBSTRATE CROSS-CUT ADHESION (D-3359)

COLD ROLL STEEL - UNPOLISHED: 3B

ALUMINUM - UNTREATED: 0B

ABS - UNTREATED: 4B

POLYCARBONATE - UNTREATED: 4B

NYLON - UNTREATED: 3B

HDPE - UNTREATED: 0B

Certified to ISO-9001: 2015

Union Specialties, Inc. 3 Malcolm Hoyt Drive, Newburyport, Massachusetts USA

Phone: 978-465-1717 Fax: 978-465-4194 email: union@unionspecialtiesinc.com www.UnionSpecialtiesInc.com

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