



# TECHNICAL DATA SHEET

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HYDRATHANE CLEAR GLOSS  
WATERBASED POLYURETHANE VARNISH  
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**PRODUCT:** An anionic NMP free and APEO free aliphatic polyester/polyether based polyurethane varnish. Intrepid's Hydrathane Waterbased Polyurethane Varnish is formulated for industrial coating applications requiring chemical resistance and adhesion to a variety of substrates. It also may be used as an anti-graffiti coating for masonry surfaces due to its chemical resistant nature.

**PROPERTIES:** VEHICLE SOLIDS(Weight)..... 34% Minimum  
GLOSS (60 Degree)..... 88 Minimum  
**DRYING TIMES:**  
TO TACK FREE..... 20 Minutes  
DRY HARD..... 60 Minutes  
Full Cure..... 7 Days

**ADVANTAGES:** (1). Water Reducible / Cleanup  
(2). Quick-Drying  
(3). Chemical Resistant  
(4). UV Resistant  
(5). Low VOC / APEO and NMP Free

**USES:** (1). Metal  
(2). Wood  
(3). Vinyl  
(4). Flooring  
(5). Anti-Graffiti Coating

**APPLICATION:** Apply by brush, roller or spray methods. For brush and roll, thin approximately 10% by volume with water and apply to small areas only due to fast dry properties. For spray application, thin with water at 10-15% by volume for proper atomization.

**SURFACE PREPARATION:**

Surface must be clean, dry and free of all contamination before application. Prime per specification instructions.



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## STEEL PREPARATION:

Surface must be clean and free of all oil, grease and foreign material. Badly rusted or pitted steel should be cleaned by commercial sandblasting and primed the same day.

## WOOD PREPARATION:

Surface must be clean and free of all oil, grease, wax, and foreign material. If needed, sand wood to a smooth finish and remove all wood dust with a tack cloth.

## TYPICAL FILM POPERTIES:

Tensile (ASTM D882):	6200 psi
Tensile at 100% Elongation:	2450 psi
Elongation (ASTM D882):	420%
Cold Crack (ISO-17233):	<-30°C
Softening Point:	210°C
Pencil Hardness (ASTM D3363):	2B
Sward Hardness (ASTM D2134):	32
UV Resistance (ASTM D4587):	No Damage (1000 Hours @ 340nm)
Impact Resistance (ASTM D2794):	No Damage @ 160 psi
Taber Abrasion (ASTM D4060):	11mg Loss (CS-10, 1000g, 1000 cycles)
Mandrel Bend (ASTM D522):	Pass 1/8"+
Dry Time ASTM D5895):	60 Minutes
Hydrolysis Resistance:	Retained 80% of Tensile Properties (200 hrs, 70°C)



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## CHEMICAL RESISTANCE TESTING (ASTM D1308):

(Note: 5=no damage to films dried 15 minutes at 80°F, then equalized at room temperature for 7 days.)

Water:	5
Acetic Acid:	5
Ammonia:	5
Methyl Ethyl Ketone:	5
2-Propanol:	5
Toluene:	5
Gasoline:	5

## VARIOUS SUBSTRATE CROSS-CUT ADHESION (ASTM D3359):

Cold Roll Steel - Unpolished:	5B
Aluminum - Untreated:	5B
Brass - Untreated:	5B
ABS - Untreated:	0B
Polycarbonate - Untreated:	0B
Nylon - Untreated:	5B
HDPE - Untreated:	0B

## PRECAUTIONS:

KEEP OUT OF THE REACH OF CHILDREN.

Do not take internally.

Avoid breathing vapor or mist.

Do not use in tank or pit without proper protection.

Read Material Safety Data Sheet before use of this product.