



TECHNICAL DATA SHEET

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HYDRATHANE

WATERBASED POLYURETHANE ADDITIVE

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PRODUCT: An anionic NMP free and APEO free aliphatic polyester/polyether based polyurethane varnish. Intrepid's Hydrathane Waterbased Polyurethane additive 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. It is simply added to standard latex based enamels to add resistance properties. It may also be applied as a standalone clear coat.

PROPERTIES: VEHICLE SOLIDS(Weight)..... 50% 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). Anti-Graffiti Coating

APPLICATION:
Stand Alone

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.



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As Additive

Start by adding at a volume of 15-20% by volume of the latex base. If more resistance is needed, more may be added. Please note that this is a clear material, so it may affect the hiding power of the initial coating.

SURFACE PREPARATION:

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

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



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Mandrel Bend (ASTM D522): (CS-10, 1000g, 1000 cycles)
Dry Time ASTM D5895): Pass 1/8"+
Hydrolysis Resistance: 60 Minutes
Retained 80% of Tensile
Properties (200 hrs, 70°C)

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.