

Technical Data

INTELLATHANE® 7161

DESCRIPTION

Intellathane® 7161 is a 100% polyurea spray elastomer with exceptional physical properties. Its instantaneous reactivity and one-to-one ratio makes Intellathane® 7161 an excellent choice for applications while applied in humid conditions.

PROPOSED USES

Intellathane® 7161 is specifically designed in potable water environments where high temperature, chemical, and/or abrasion resistance is needed. It exhibits excellent adhesion to most materials and is suitable as a protective liner for properly prepared cementitious, wood, and/or metal surfaces.

COLORS

Intellathane® 7161 is available in Black, Tan, Grey and White. Due to the aromatic nature of the polymer it is likely to discolor when exposed to conditions of high UV flux and high temperature. This discoloration will not affect the functionality of the coating. The darker colors (Black and grey) are expected to mask the change, while the Tan is approximately the color of the change. The white is expected to turn a light reddish-yellow with exposure.



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TYPICAL PROPERTIES

Property	Test Method	<u>"A"</u>	<u>"B"</u>
Color	N/A	Yellow	Black, White, Tan, Med. Gray
Specific Gravity	ASTM D-1638	1.1366	1.08
Viscosity	Brookfield LVF	900 cps	500 - 600 cps
Mixing Ratio	By Volume	1	1
Pounds Per Gallon	Calibrated Cup	9.5	8.5

PHYSICAL PROPERTIES

DENSITY (PCF)	(ASTM D-1622)	65 – 70 pcf
SHORE A HARDNESS	(ASTM D-2240)	95 A
SHORE D HARDNESS	(ASTM D-2240)	49 D
TENSILE STRENGTH	(ASTM D-2370)	2997 PSI STAND. DEV.=170
ELONGATION	(ASTM D-2370)	271 PSI STAND. DEV. = 31
YOUNG'S MODULUS	(ASTM D-2370)	20614 PSI STAND. DEV.=1003
TEAR STRENGTH	(ASTM D-1004)	452 LB/IN STAND. DEV.=36



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SURFACE PREPARATION

STEEL

1. *Plan to coat the same day as the blasting takes place. The sooner the freshly prepared surface is coated, the better the anticipated adhesion of the coating to the metal. Contact APS technical support if this cannot be done.*
2. *Clean up all oil residue with detergent/water or an appropriate solvent in compliance with SSPC-SP1.*
3. *Sand/media blast the surface to a 0.003 to 0.004 inch profile. Consult with your abrasive blasting equipment manufacturer to determine best media and settings. G-25 steel grit is recommended, but 8/20 silica sand, 16 grit garnet or Al₂O₃ and Black Beauty 12/40 work fine. The blasting gun should be equipped with a ¼" nozzle and should be set to deliver 100psi nozzle pressure. The standard utilized in this operation should be SSPC-SP10-Near-White Blast Cleaning. Do not over blast. Remove all signs of corrosion and previous coating treatments, if applicable consistent with SPC-SP10. The settings and media recommended may vary depending upon the thickness and toughness of the mil scale, softness of the steel and other factors.*
4. *Clean up all media and dust with a vacuum followed by compressed air.*
5. *Immediately apply Intellathane® 7161 to the clean/dry surface at a mil thickness dictated by the water temperature below.*

WOOD

1. *Thoroughly clean off any residue with water/detergent.*
2. *Sand off / remove any previous coating if applicable. Use compressed air to blow off dust.*
3. *Dry thoroughly.*
4. *Immediately apply Intellathane® 7161 to the clean/dry surface at a mil thickness dictated by the water temperature below.*

CEMENTITIOUS

1. *New concrete must be aged 28 days prior to coating. pH should be 6 – 8.*
2. *Old scaling concrete will need to have its surface removed.*
3. *Shot-blast or chemically etch to obtain a profile.*



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4. *Clean up dust and media. Wash with copious amounts of detergent and water to clean off residue and neutralize the acid etch. Profile should feel similar to 100 grit sandpaper.*
5. *Allow to dry thoroughly.*
6. *Immediately apply Intellathane® 7161 to the clean/dry surface at a mil thickness dictated by the water temperature below.*

For other surfaces contact BPL for recommendations.

EQUIPMENT

1:1 plural component proportioning equipment with the following settings:

Hose heat: 150° F – 180° F

A-side preheater: 150° F – 180° F

B-side preheater: 150° F – 180° F

Static Pressure: 2500 psi or greater

Spray gun should be Graco Fusion outfitted with an AW3333 or AR3939 spray module or the equivalent.

MIXING

The polyol/resin side will need to mix to be made uniform. Do not adulterate with solvent, thinner or other coating components under any circumstances.

APPLICATION

Apply 2 – 7 passes (coats) of coating to the surface to achieve 50 – 180 mils using a cross-hatch spray technique to minimize variations in thickness. Use the following formula to compute the number of mils of coating to apply to your project:



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Water Temperature	Mil Thickness of Coating
75 F and under	50 – 60 mils of coating
76 – 140 F	Mils = $0.78 * TW - 9.2$
141 – 180 F	Mils = $2 * TW - 180$

Recoating Intellathane® 7161 is ideally done in a period of 20 seconds to 45 minutes of the initial coat to obtain maximal adhesion; however, the material may be tied into for as long as 10 hours after the initial spray.

POST CURE

Please allow 24 hours @70° F to elapse before putting the product into immersion service. Foot traffic may commence 1 hour after spraying. Additional Time may be necessary when application occurs at cold ambient temperatures.



Certified to
NSF/ANSI 61 & 372

Call **Accella Polyurethane Systems** for technical questions. 770-607-0755.

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