

APEX LINER

Technical Data Sheet

DESCRIPTION

Apex Liner is a two-component, 100% solid polyurea hybrid coating system. It is a multi-purpose coating system, well suited for a variety of applications.

Apex Liner is NSF/ANSI/CAN 61 certified and listed for use in drinking water systems. The desired performance and suitability of use must be tested and qualified by the end user.

Apex Resin

Specific Gravity @ 77°F	1.04
Resin Viscosity @ 77°F	1,100 cps

Apex Isocyanate

Specific Gravity @ 77° F	1.15
Viscosity @ 77° F	510 cps

Apex Liner System

Parts by Volume	50 Resin/50 Iso
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Reactivity

Hand Mix	3-5 seconds
Spray Gel Time	4-6 seconds
Spray Tack Free Time	6-10 seconds
Return Time to Service	24 hrs

For more information on this product, please contact NanoChem at 574.970.2436

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"WARNING" these products can be used to prepare a variety of polyurethane products. Polyurethanes are organic materials and must be considered combustible.

APEX^{XL}LINER

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Typical Physical Properties

Core Density, <i>ASTM D 1622</i>	70 pcf
Hardness, <i>ASTM D 2240</i>	45 Shore D
Tensile Strength, <i>ASTM D 1623</i>	1800 psi
Elongation, <i>ASTM D 1623</i>	115%
Abrasion Resistance, <i>ASTM D 4060</i>	0.10% per 1,000 cycles
Tear Resistance, <i>ASTM D 1004</i>	304 pli
Flammability, <i>Iso 3785/FMVSS 302</i>	.63" Standard is <4" min
Water Vapor Transmission, <i>ASTM E96, Desiccant</i>	0.1 perm/inch

NSF/ANSI/CAN 61 Drinking Water Certification

Minimum Tank Size	200,000 gallons
Minimum Pipe Diameter	120"
Maximum Dry Film Thickness	110 mil

Available Colors:

Natural, Black, Gray, Tan

Recommended Temperature Range

-65* F to 145* F

Recoat Window

Maximum recommended re-coat window is 24 hrs. For re-coating outside this window, it is recommended that a proper cleaning and surface sanding be completed.

Primer Use and Top Coating

Applying a top coat of paint or a UV resistance coating such as an aliphatic polyurea is acceptable. When applying a top coat of paint it is recommended that the surface of the polyurea be cleaned and sanded with 220 grit sandpaper. Commercially available primers can be used for substrate preparation and is recommended for the case of steel substrates. The desired performance and suitability of primers and top coats must be tested and qualified by the end user.

Application Recommendations

See application guidelines for recommendations on surface preparation and environmental conditions for spraying application. It is recommended for Apex Liner, that the material be allowed to cool to ambient temperature prior to being exposed to temperatures below 0 °C (32 °F).

EQUIPMENT RECOMMENDATIONS

The polyol "B" component must be thoroughly power mixed each day, prior to use. Both the "A" ISO and "B" polyol components shall be pumped to high pressure spray-in-place plural component dispensing equipment.

Component "A"(Iso) Temperature:	120 - 150 °F
Component "B"(Polyol) Temperature:	120 - 150 °F
Hose Temperature:	120 - 150 °F
Equipment Component Pressure:	2500 psi (1800 psi min)

Apex Liner should be applied by a 1:1 by volume, plural component, high-pressure metering machine. The machine must be capable of maintaining component temperatures of at least 150 oF (66 oC) at the spray gun, as well as operating pressures up to 3000 psi. An impingement mix, airless spray gun with changeable spray tips, which allows for the optimization of the spray pattern, will be required.

*Gun and tip combinations are influenced by part geometry, desired finish, and other factors and should be determined by the applicator.

*Reactivity can be influenced by the temperature of the components, the temperature of the substrate, coating thickness, and environmental conditions.



STORAGE RECOMMENDATIONS

Shelf Life	1 Year
Temperature	60-80°F

HANDLING AND APPLICATION RECOMMENDATIONS

Polyurethanes and polyurea coating systems should always be processed where there is adequate ventilation. Safety glasses and protective gloves are strongly recommended. For more information, consult the product Safety Data Sheet (SDS).

Plural component high-pressure impingement-mix polyurethane dispensing equipment is recommended for processing Apex Liner.

SAFETY AND HANDLING RECOMMENDATIONS

- For information regarding safe product handling, consult the product Safety Data Sheet.
- For severe spills and emergencies contact CHEMTREC at 1-800-424-9300

For more information on this product, please contact NanoChem

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