

Overview

Spraylat's Liquid Specialties Group offers a wide range of high performance liquid coatings. Spraylat's coating technologies are engineered to provide unique solutions to individual customer requirements. Our expertise in providing environmentally friendly, "near zero" VOC coatings represents industry leading formulation expertise.

Custom Solutions

Spraylat strives to address the individual requirements of its customers with specialized product solutions. Matching the production environment and equipment to the paint product is critical to achieving the highest quality result at the lowest cost. Spraylat products can be modified to accommodate specific customer needs. These customized adjustments to our standard products are often based on a Spraylat line survey.

Liquid Specialties Products

Spraylat's Liquid Specialties product lines include water and solvent-based products formulated from a variety of resin chemistries. These resin families include those listed below. Within these product lines, we offer forced dry, bake and air dry systems. Additionally, products designed for primer or direct to metal application are available.

Spraylat Liquid Product Lines

- 2K Urethanes
- 1K Urethanes, Alkyds, Acrylics
- 2K Epoxies
- High Solids Polyesters
- Polyurethane Dispersions (PUD)
- High Solids/Low Bake Air-Dry/Bake Primers
 - > Alkyd, Epoxy, Urethane, Zinc Rich



Spraylat Corporation Worldwide Headquarters

143 Sparks Avenue
Pelham, NY 10803
Phone: 914-738-1600
Fax: 914-712-2838
Internet: www.spraylat.com

Liquid Specialties Group

1701 East 122nd Street
Chicago, IL 60633
Phone: 800-443-0244
Fax: 773-646-3743

Spraylat

716 South Columbus Avenue
Mt. Vernon, NY 10550
Phone: 800-336-1936
Fax: 914-699-3035

Spraylat

3465 La Cienega Blvd.
Los Angeles, CA 90016
Phone: 800-867-7729
Fax: 310-836-6094

Spraylat GmbH

Krantzstrasse 7
D-52070 Aachen, Germany
Phone: +49-241-180-5152
Fax: +49-241-180-5154

Spraylat (Shanghai) Representative Office

Central Place
Room 6008, 6th Floor
No. 16, Henan (S) Road
Shanghai, 200002, China, P.R.
Phone: +86-21-6355-8006
Fax: +86-21-6373-9599

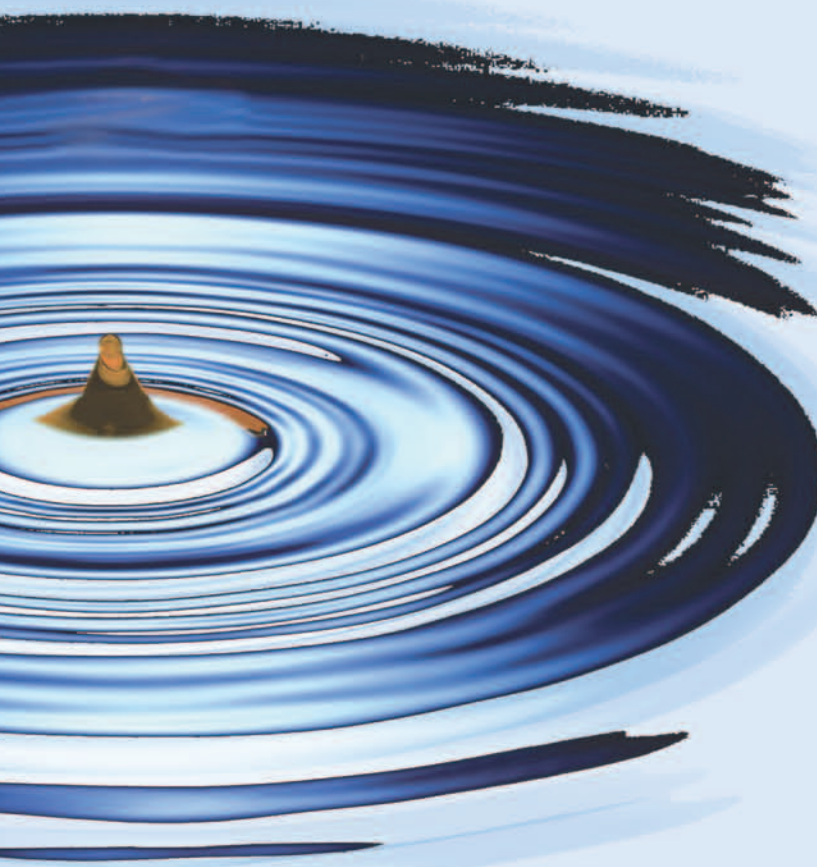
2K NISO Urethane



**HIGH-PERFORMANCE,
SAFE, VERSATILE &
FIELD APPLICATION FRIENDLY**

Features

- Environmentally Friendly, Plant Safe
 - > 2.8 - 3.5 VOC
 - > HAPS Free, Lead Free, Chrome-Free
 - > Isocyanate-Free; No Respirators Needed
 - > Reduces Health and Safety Concerns
- Applicator Friendly
 - > Extended Pot Life; 24 hrs.+
 - > Direct-to-Metal Capability
 - > Wet-on-Wet Coating Capability
 - > Excellent for Touch-Up, Repair, Refurbish
 - > Air-Dry, Forced-Dry
 - > Minimal Pretreat Required for Adhesion
- Superior Weatherability
- Excellent Corrosion Resistance
- Wear and Abrasion Resistant
- Durable, Impact and Chip Resistant
- Full Range of Finishes and Glosses
 - > Full Gloss Range up to 80-90°+
 - > Most all Metallics and Colors Available



Surface Preparation

Coating adhesion is enhanced through proper surface preparation. Prior to priming or coating direct-to-metal, all surfaces must be free from dirt, grease, oil, fingerprints and other forms of surface contamination. Chemical cleaning of metals, which may include an acid etch, is recommended in most cases. Severe corrosion or oxidation may require mechanical cleaning by means of sand blasting or other abrasive cleaning methods before chemical cleaning. Certain Spraylat products are designed to coat over marginally cleaned steel surfaces.

Pretreatment

A chromate conversion coating of aluminum or a zinc, iron phosphate treatment, applied onto steel surfaces, will provide excellent adhesion and enhance corrosion properties.

Priming

Untreated steel, iron or aluminum substrates can be primed with a Spraylat solvent or water-based epoxy primer to provide enhanced adhesion and corrosion resistance. For other substrates including castings, plastics, etc, please consult a Spraylat technical representative for recommendations.

Both solvent and water-based primers are suitable for use with any Spraylat NISO 2K topcoat. In addition to being environmentally friendly, these primers are fast drying, allowing for touch-up or sanding of the primed surface within an hour of application. High film builds of up to 8-12 mils are also achievable with selected 2K solvent-based epoxy primers. Spraylat primers are also formulated to be very smooth, and commonly enhance the appearance of the final coated product.

Equipment Recommendations

Spraylat's NISO 2K product is recommended for production painting using all manual/automatic conventional air spray, airless, air assisted, HVLP and electrostatic guns including turbo bells and turbo discs. In general, Spraylat products can be adjusted to accommodate on-site equipment systems.

Spraylat will work with individual customers to fine tune our products to satisfy individual production situations. In consultation with the equipment supplier, Spraylat will assist in determining the application equipment that best suits the paint production requirements and maximizes transfer efficiency.

Flash, Dry and Cure

Solvent-based topcoats require an adequate flash-off of solvent before force drying. Suggested flash-off times are 5-15 minutes for most applications. Product formulations can often be adjusted to accommodate specific flash time requirement when in-line painting is being performed.

Spraylat's NISO 2K product is primarily designed for air dry or forced-dry application. General curing conditions are shown in the table below.

	Air-dry Tack-Free/ Dry-to-Handle	Forced-dry Full Cure
2K NISO Urethane	20-30 min/ 60 min	30-60 min, 160-180°F

Wet-on-Wet Application

Spraylat's 2K NISO topcoat can be applied wet-on-wet onto itself or onto a recommended Spraylat solvent-based primer. The time between spray applications should normally be 15-30 minutes. Actual time will depend on film thickness and ambient conditions in order to allow adequate flash off.

Recoat

Recoating or touch-up of the top coat can be accomplished after sufficient cure of the initial paint film. This is normally 1-2 hours. Extended times between recoating may require additional surface preparation to insure good adhesion between layers due to contamination of the painted surface. In some cases, this may involve a light abrasion of the cured paint.

Film Thickness/High Film Builds

Spraylat's NISO product is commonly used as a direct-to-metal coating. In this case a dry film thickness of 1.0-3.0 mils is recommended to assure good coating performance and final finish properties. When NISO coatings are applied over a primer, a normal dry film primer thickness of 1-1.5 mils is suggested.

Certain applications require high film builds of 5 mils or more. Spraylat's solvent-based epoxy primer is capable of achieving a total film build of 5+ mils to provide a base upon which NISO coatings can be applied. This primer can be applied wet-on-wet to achieve these higher film thicknesses.

Spraylat 2K NISO Urethane

Physical Properties*

Density, lbs./gal., ± 0.2	9.2
Solids Content, wgt.%, $= \pm 2\%$	52%
Viscosity, Zahn #2, sec.	30-40
VOC, lbs./gal.	2.8-3.5

Performance Properties

Gloss, 60°	90+
Pencil Hardness	H-2H
Impact Resistance, lbs. direct	air-dry/forced dry 100+
Chemical Resistance, water resistance, 7 days	pass
acid resistance	pass
MEK, double rubs	50+
motor oil, 24 hrs.	pass
gasoline, 30 min., immersion	pass
Humidity Resistance, hrs.	500+
Salt Spray Resistance, <1/16" creep, hrs.	
- Bonderite 1000	> 500+
- chromated Al	> 1000+
- with primer, hrs.	> 1000+
- DTM (no primer)	> 500+
QUV Accelerated Weathering	
60° Gloss, initial	92
60° Gloss, 12 months, % retention	75
Florida Weathering	
60° Gloss, initial	91
60° Gloss, 12 months, % retention	77%

*Properties of actual products will vary by individual product formulation and pigment loading

Coating Use

Spraylat's NISO 2K urethane is a unique direct-to-metal coating that offers the excellent performance properties of 2K urethane chemistry with a significant extension in pot life. In production, a pot life of 24 hours or more is achievable. This pot life can be further extended through its mixing with freshly prepared paint adding significant flexibility in production. Spraylat's NISO product delivers superior adhesion to most substrates while requiring minimal pretreatment of the substrate. This coating is primarily designed for either air-dry or forced-dry application.

A key benefit to Spraylat's NISO product is its suitability for in-field recoat and/or for touch-up and repair. Scratched or damaged areas can be selectively coated with a high performance finish using conventional spray equipment without concern over a short working time. Being isocyanate free upon atomization, this coating is sprayable indoors without the normal concern for health risk and the need to employ respirators.

The corrosion protection afforded by Spraylat's NISO 2K urethane coating is excellent. When applied in conjunction with a recommended Spraylat primer or alternative surface treatment method, its performance is comparable to other high quality, conventional 2K urethane products. This coating delivers excellent weatherability and durability making it suitable for use in all

industrial and ACIE applications. The chemical, water and humidity resistance of this coating is also excellent. As a result, the extension of in-service equipment life, with excellent finish quality retention, is normally achieved when using this coating.

Industry Applications

TRANSPORTATION

- Truck Bodies, Trailers
- Maintenance, Utility Vehicle
- Highway Signs

ACIE

- Agricultural Equipment
- Industrial Machinery
- Construction Equipment

INDUSTRIAL

- Tanks, Vessels, Cylinders
- Storage Products/Containers
- Machinery
- Pump Housings
- Tools, Hardware

ARCHITECTURAL

- Structural Parts, Buildings

- Extrusions

APPLIANCES