

# **ZnKoat**ZINC FLAKE EPOXY PRIMER

## TECHNICAL DATA SHEET

### **DESCRIPTION**

A premium quality zinc-based anti-corrosive epoxy primer, ideal for applications requiring extra corrosion and chemical resistance, and mechanical durability. ZnKoat delivers equal or better cathodic protection than zinc dust and provides an additional barrier of protection.

For best results use the complete NexShield coating system.

### **FEATURES**

With a platelet-like structure, the zinc flake provides a larger surface area the typical zinc dust allowing for more favorable performance characteristics:

- Over 4000 hours salt spray on steel
- Greater flexibility compared to conventional zinc dust
- Improved cohesion
- Smoother surface & improved overcoat properties
- No intermediate coat necessary

The full flake 2D contact between the zinc flakes gives a higher current density that improves the cathodic nature of the coating. Less zinc in the dry film results in a greater amount of resin, which protects the zinc particles from corrosive forces, thus reducing the problem at the source. As the zinc flakes overlap each other when they are laid down, this barrier is enhanced.

	QUICK REFERENCE
<b>4:1</b> (Resin to Catalyst)	Mix Ratio
<b>80155C</b> ZnKoat Catalyst	Catalyst
<b>4.0 - 6.0 mils</b> (100 - 150 microns)	Recommended Thickness
<b>864 ft<sup>2</sup>/usg @ 1.0 mil DFT</b> (21 m <sup>2</sup> /L @ 25 microns DFT)	Theoretical Coverage
<b>Q650</b> Universal Reducer	Thinner / Clean-up

PRODUCT DATA	
Туре	Zinc Flake Epoxy Primer
Gloss	Matte
Colour	Zinc Grey
VOC (mixed)	420g/L
Zinc content	45% mixed (dry film)
Weight Solids (mixed)	$71.0 \pm 2.0\%$
Volume Solids (mixed)	53.0 ± 2.0%
Viscosity (mixed)	86 KU
Flash Point	23°C (73°F)
Shelf Life	1 year from shipment

These technical specifications are based on results from product 155ZK.

Last updated September 2013

APPLICATION GUIDE		
Surface	Steel, galvanized, aluminum	
Pot Life	6 hours @ 25°C (75°F)	
Dry time at 75°F (24°C) 50% relative humidity		
Cure times		
To Touch	10 - 20 minutes	
Tack Free	< 1 hour	
To Recoat	>1 hour < 72 hours	
Hard	24 hours	
PERFORMANCE		
Corrosion Resistance	<b>4000+ hours salt spray</b> @ SSPC SP6 with 4-6mils DFT	

## **APPLICATION EQUIPMENT**

Conventional Air Spray	Reduce with Q650 as required
Air Assisted Airless	Reduce with Q650 as required
Airless	Reduce with Q650 as required
Electrostatic Spray	Some adjustments for polarity may be necessary to maximum of 2 mohms
Brush & Roll	Use as described within specified pot life

### SURFACE PREPARATION

All surfaces must be clean and free from dirt, oils, rust, flaking paint, and other contaminants. Ensure a sandblast quality of SSPC-SP6 (NACE 2) Commercial blast or for best results SPC-SP10 (NACE 2) Near White blast or better. Proper surface preparation will enhance the performance of the coating system.

**Important:** ZnKoat should be topcoated in the 72 hour window to ensure good intercoat adhesion, or sanding will be necessary. Temperatures in excess of 80°F can shorten this time due to an accelerated cure response. Outside this limit the surface should be sanded and cleaned prior to top coating.

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#### **APPLICATION INSTRUCTIONS**

**THINNING:** Thinning may facilitate flow depending on application equipment, use up to 10% total by volume. Only use the specified thinners approved by the manufacturer. Be aware that additional reduction (solvent) will increase the VOC levels of the mixed coating. Always know VOC laws for coating application in your area and follow regulated restrictions.

**APPLICATION:** Mix thoroughly before use, A to B ratio is 4:1. Combine 1 gallon "A" ZnKoat Zinc Flake Primer with 1 quart "B" 80155C and mix well.

Apply when surface and air temperature are between 35°F-100°F (7°C-38°C) Ensure surface temperature is at least 5°F (3°C) above the dewpoint.

**DRYING TIME:** See application data for typical dry times. Low temperature, high humidity, poor ventilation and thick films will slow drying.

**CLEAN UP:** Flush mixed material from pot and lines immediately after use. Clean up paint tools or spills immediately with recommended thinner, carefully observing cautions on paint and thinner labels. Dried paint may be removed by scraping.

## **SAFETY & STORAGE**

For industrial use only by professional applicators. Always wear appropriate safety equipment and observe proper handling techniques.

Refer to *Material Safety Data Sheet* for proper health and safety information. Store in cool, dry, and secure location. Consult your Niskoat representative for more information.

### **GENERAL PURPOSE SYSTEM SPECIFICATIONS**

SSPC-SP6 (NACE 3) Commercial Blast or SSPC-SP5 (NACE 1) Near-white Blast

155ZK

**Prime** ZnKoat Epoxy Primer

**4.0 - 6.0 mils DFT** (100-150 microns)

5xxNX - Colour

**Topcoat** NexShield HS Urethane Topcoat

**2.0 - 3.0 mils DFT** (50-75 microns)

Clear Coat

500NX - Clear

(optional)

NexShield HS Urethane Topcoat 1.0 - 2.0 mils DFT (25-50 microns)

110 210 11113 21 1 (23 30 11116 0113)

TOTAL SYSTEM

**7.0 - 11.0 mils DFT** (175-275 microns)

Thinner

Q650

**Universal Reducer** 



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IMPORTANT – The information contained in this data sheet pertains to material currently offered and represents the results of Laboratory evaluation and is intended as a guide. Since the customer's application requirements are not under our control, Nisku Industrial Coatings Ltd. and Niskoat Ltd. cannot make any warranties or guarantees for the results obtained.