

# PRODUCT APPLICATION GUIDE

## HALOX<sup>®</sup> Corrosion Inhibitors



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# HALOX<sup>®</sup> Product Application Guide

Inorganic Corrosion Inhibitors			
PRODUCT	CLASSIFICATION/ CHEMICAL DESCRIPTION	PHYSICAL PROPERTIES (Typical)	SUGGESTED APPLICATIONS
HALOX <sup>®</sup> 700	Zinc Aluminum Phosphate Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) Oil Absorption (lbs/100 lbs) Density (g/ml) D50 Horiba (microns) D100 Horiba (microns) Hegman Grind % L.O.I. (at 600°C)	5.1 36 3.1 5-7 <20 5.5-6.0 9.8 <b>Mixed Metal Phosphate</b> • Alkyds • Acrylics • Water Based Epoxies • Solvent 2K Epoxies • Urethanes • Solvent 2K Polyurethanes • Synergist with other HALOX <sup>®</sup> Organic Corrosion Inhibitors
HALOX <sup>®</sup> SZP-391	Phosphosilicate Strontium Zinc Phosphosilicate Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) Oil Absorption (lbs/100 lbs) Density (g/ml) Mean Particle Size (microns) Hegman Grind % Moisture L.O.I (450°C) % Solubility in water	7.2 34.3 3.3 4.9 5.5 1.5 5.5 0.02 <b>Most effective &amp; efficient corrosion inhibitor</b> • SB Alkyds • Acid Catalyzed Systems • Acrylic Lacquer Emulsions • Epoxy Esters • High Solids Alkyds • High Solids Epoxy • Latex Emulsions • PVDC • Polyesters • Solvent 2K Epoxies • WR Alkyds • Water Reducible Epoxies • DTM Finishes • Gloss Systems • Thin Film Applications
HALOX <sup>®</sup> SZP-391 JM	Phosphosilicate Strontium Zinc Phosphosilicate Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) Oil Absorption (lbs/100 lbs) Density (g/ml) Mean Particle Size (microns) Hegman Grind % Moisture % Solubility in water	7.5 34.0 3.3 2.0 <8.0 1.5 0.02 <b>Micronized most effective &amp; efficient corrosion inhibitor</b> • High Solids Alkyds • SB Alkyds • SB Epoxy • WR Alkyds • Thin Film Coatings • Aerospace, Auto Refinish • Clear Coats • DTM Finishes • Effective at 50% normal dosage • Gloss Coatings • Synergist for HALOX <sup>®</sup> 551 • Wash (etch) Primer
HALOX <sup>®</sup> SZP-395	Phosphosilicate Strontium Zinc Phosphosilicate Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) Oil Absorption (lbs/100 lbs) Density (g/ml) Mean Particle Size (microns) Hegman Grind % Moisture % Solubility in water	7.2 34.0 3.3 4.2 5.5 1.5 0.02 <b>Our most effective and versatile corrosion inhibitive pigment</b> • Alkyds (high solids and traditional) • Epoxies • Latex • PVDC • WR Alkyds • High Acid Value Resins • Catalyzed Baking Systems
HALOX <sup>®</sup> Zinc Phosphate	Phosphate Zinc Phosphate Complex Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) Oil Absorption (lbs/100 lbs) Density (g/ml) Mean Particle Size (microns) Hegman Grind % Moisture % L.O.I. (450°C) % Solubility in water	8.2 42.0 3.2 5.0 5.5 2.2 10 0.02 <b>Standard corrosion inhibitor for most high performance resin systems</b> • Short Oil Alkyds • Medium Oil Alkyds • Long Oil Alkyds • Solvent 2K Epoxies • Epoxy Esters • Latex Emulsions • Polyesters • PVDC • Water Reducible Epoxies • WR Alkyds • High Solids Epoxies • Water Based Epoxy Esters • Thin Film Applications • Acrylic Lacquer Emulsions • Acid Catalyzed Systems

# HALOX<sup>®</sup> Product Application Guide

<b>Inorganic Corrosion Inhibitors (Continued)</b>			
PRODUCT	CLASSIFICATION/ CHEMICAL DESCRIPTION	PHYSICAL PROPERTIES (Typical)	SUGGESTED APPLICATIONS
<b>HALOX<sup>®</sup> Z-PLEX 250</b>	Phosphate Zinc Phosphate Complex Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 7.5 Oil Absorption (lbs/100 lbs) 25.0 Density (g/ml) 3.3 Mean Particle Size (microns) 5.0 Hegman Grind 6.0 % L.O.I. (600°C) 9.0 % Solubility in water 0.02	<b>Standard corrosion inhibitor for most high performance resin systems</b> • Short Oil Alkyds • Water Reducible Epoxies • Medium Oil Alkyds • WR Alkyds • Long Oil Alkyds • High Solids Epoxies • Solvent 2K Epoxies • Water Based Epoxy Esters • Epoxy Esters • Thin Film Applications • Latex Emulsions • Acrylic Lacquer Emulsions • Polyesters • Acid Catalyzed Systems • PVDC
<b>HALOX<sup>®</sup> Z-PLEX 111</b>	Phosphosilicate Zinc Phosphate Complex Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 8.1 Oil Absorption (lbs/100 lbs) 36.3 Density (g/ml) 3.0 Mean Particle Size (microns) 5.9 Hegman Grind 5.0 % Moisture 0.6 % L.O.I. (450°C) 4.2 % Solubility in water 0.02	<b>Standard corrosion inhibitor for most high performance resin systems</b> • Short Oil Alkyds • Water Reducible Epoxies • Medium Oil Alkyds • WR Alkyds • Long Oil Alkyds • High Solids Epoxies • Solvent 2K Epoxies • Water Based Epoxy Esters • Epoxy Esters • Thin Film Applications • Latex Emulsions • Acrylic Lacquer Emulsions • Polyesters • Acid Catalyzed Systems • PVDC
<b>HALOX<sup>®</sup> Z-PLEX 750</b>	Corrosion Inhibitor mixture Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 7.2 Oil Absorption (lbs/100 lbs) 27.0 Density (g/ml) 3.0 Mean Particle Size (microns) 5.0 Hegman Grind 5.0 % Moisture 0.8 % Solubility in water 0.02	<b>Low Zinc, Cost Effective Inorganic-Organic Corrosion Inhibitor</b> • Latex Emulsions • Chromate-Replacement • SB 2K Epoxies • High Solids Epoxies • Hybrids • SB Alkyds • Water Reducible Alkyds (Air Dry)

# HALOX<sup>®</sup> Product Application Guide

## Inorganic Corrosion Inhibitors (Zinc free)

PRODUCT	CLASSIFICATION/ CHEMICAL DESCRIPTION	PHYSICAL PROPERTIES (Typical)	SUGGESTED APPLICATIONS
HALOX <sup>®</sup> 430 U.S. Patent No. 7,481,877	Calcium Phosphate Ion Scavenging Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 8 Oil Absorption (lbs/100 lbs) 45 Density (g/ml) 2.7 Mean Particle Size (microns) 4.6 Hegman Grind 4 % Moisture 0.5 % Solubility in water 0.02	<b>Zinc Free &amp; Heavy Metal Free Performance Synergistic &amp; Cost Effective Corrosion Inhibitor</b> <ul style="list-style-type: none"> <li>• Water Based 2K Epoxies</li> <li>• SB 2K Epoxies</li> <li>• Hybrids</li> <li>• WR Alkyds</li> <li>• Water Based 2K Polyurethane</li> <li>• Latex Emulsion</li> <li>• High Solids Epoxies</li> <li>• Polyesters</li> <li>• DTM Finishes</li> </ul>
HALOX <sup>®</sup> 430 JM	Calcium Phosphate Ion Scavenging Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 8.0 Oil Absorption (lbs/100 lbs) 50.0 Density (g/ml) 2.7 Mean Particle Size (microns) 2.0 Hegman Grind 6.0+ % Moisture 1.1 % Solubility in water 0.02	<b>Micronized Zinc Free, Heavy Metal Free Synergistic &amp; Cost Effective Corrosion Inhibitor</b> <ul style="list-style-type: none"> <li>• Thin Film Coatings</li> <li>• WB 2K Epoxies</li> <li>• SB 2K Epoxies</li> <li>• Hybrids</li> <li>• High Solids Epoxies</li> <li>• Aerospace, Auto Refinish</li> <li>• Cathodic Inhibitor</li> <li>• Clear Coats</li> <li>• Latex Emulsions</li> <li>• WB 2K Polyurethane</li> <li>• DTM Finishes</li> <li>• Polyesters</li> <li>• Powder Coatings</li> </ul>
HALOX <sup>®</sup> CW-314	Proprietary Composition Compliant with the EC Regulation No. 1907/2006 on REACH • FDA Compliant • 21 CFR 175.300	pH (10% solution by wt) 7.0 Oil Absorption (lbs/100 lbs) 79.5 Density (g/ml) 3.0 Mean Particle Size (microns) 5.2 Hegman Grind 5.5-6.0 % Moisture 1.9 Refractive Index 1.6 Surface area (B.E.T. m <sup>2</sup> /g) 51.0 % Solubility in water negligible	<b>Micronized Inorganic Heavy Metal Free Pigment</b> <ul style="list-style-type: none"> <li>• SB Alkyds</li> <li>• WR Alkyds</li> <li>• WB 2K Epoxies</li> <li>• SB 2K Epoxies</li> <li>• Solar Reflective Coatings</li> <li>• Food Contact Coatings</li> <li>• Coil Coatings</li> <li>• DTM Finishes</li> <li>• White Elastomeric Roof Coatings</li> </ul>
HALOX <sup>®</sup> CW-491	Phosphosilicate Calcium Phosphosilicate Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 8.0 Oil Absorption (lbs/100 lbs) 45.9 Density (g/ml) 2.7 Mean Particle Size (microns) 4.3 Hegman Grind 5.0 % Moisture 1.4 % L.O.I. (450°C) 7.0 % Solubility in water 0.02	<b>Heavy Metal Free Performance</b> <ul style="list-style-type: none"> <li>• Short Oil Alkyds</li> <li>• Long Oil Alkyds</li> <li>• Water Reducible Epoxies</li> <li>• Medium Oil Alkyds</li> <li>• PVDC</li> <li>• Solvent 2K Epoxies</li> <li>• WR Alkyds</li> <li>• Medium Oil Alkyds</li> <li>• Epoxy Esters</li> <li>• Latex Emulsions</li> <li>• Etch Primers</li> </ul>
HALOX <sup>®</sup> SW-111	Phosphosilicate Strontium Phosphosilicate Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 7.9 Oil Absorption (lbs/100 lbs) 45.1 Density (g/ml) 2.8 Mean Particle Size (microns) 5.9 Hegman Grind 5.0 % Moisture 0.8 % L.O.I. (450°C) 4.0 % Solubility in water 0.03	<b>Designed for high performance applications</b> <ul style="list-style-type: none"> <li>• Water Based Epoxies</li> <li>• WR Alkyds</li> <li>• Solvent 2K Epoxies</li> <li>• Latex Emulsions</li> <li>• Caulks and Sealants</li> </ul>

# HALOX<sup>®</sup> Product Application Guide

<b>Inorganic Corrosion Inhibitors (Zinc free, Continued)</b>			
PRODUCT	CLASSIFICATION/ CHEMICAL DESCRIPTION	PHYSICAL PROPERTIES (Typical)	SUGGESTED APPLICATIONS
HALOX <sup>®</sup> BW-191	Phosphosilicate Barium Phosphosilicate Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 8.2 Oil Absorption (lbs/100 lbs) 35.3 Density (g/ml) 3.0 Mean Particle Size (microns) 5.7 Hegman Grind 5.0 % Moisture 0.5 % L.O.I. (450°C) 3.0 % Solubility in water 0.02	<b>Increased solubility compared to traditional zinc phosphate</b> • Water based Latexes • High Solids Coatings • Water Reducible Systems • Synergistic with HALOX <sup>®</sup> SZP-391 or HALOX <sup>®</sup> Z-PLEX 250 • Medium Oil Alkyd • Long Oil Alkyd
HALOX <sup>®</sup> CW-291	Borosilicate Calcium Borosilicate Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 10.1 Oil Absorption (lbs/100 lbs) 28.4 Density (g/ml) 2.7 Mean Particle Size (microns) 5.7 Hegman Grind 5.0 % Moisture 0.3 % L.O.I. (450°C) 4.2 % Solubility in water 0.3	<b>Recommended for protective coatings formulated with alkyd technology</b> • Medium Oil Alkyds • High Solids Alkyds • Epoxy Esters • Long Oil Alkyds • Alkyd Gloss Topcoats • DTM Finishes
HALOX <sup>®</sup> CW-2230	Borosilicate Calcium Borosilicate Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 10.1 Oil Absorption (lbs/100 lbs) 37.3 Density (g/ml) 2.6 Mean Particle Size (microns) 5.5 Hegman Grind 5.0 % Moisture 0.3 % L.O.I. (450°C) 6.0 % Solubility in water 0.4	<b>Low moisture product, well-suited for polyurethane coatings</b> • Epoxy Esters • Long Oil Alkyds • Medium Oil Alkyds • Modified Alkyds • Polyurethane
HALOX <sup>®</sup> CW-22/221	Borosilicate Calcium Borosilicate Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 10.1 Oil Absorption (lbs/100 lbs) 33.1 Density (g/ml) 2.7 Mean Particle Size (microns) 5.8 Hegman Grind 5.0 % Moisture 0.4 % L.O.I. (450°C) 4.2 % Solubility in water 0.3	<b>Can be used as a stand-alone corrosion inhibitor</b> • Medium Oil Alkyds • Long Oil Alkyds

# HALOX<sup>®</sup> Product Application Guide

Organic Corrosion Inhibitors (Water)			
PRODUCT	CLASSIFICATION/	PHYSICAL PROPERTIES	SUGGESTED APPLICATIONS
HALOX <sup>®</sup> 350	Organic Corrosion Inhibitor Organic Di-Acid Nitrite-Free Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10wt% sol) 3.3 Active solids 97-100 Form/Appearance Powder/Slightly Yellow Density (g/ml) 1.57 Melting point (°C) Approx. 170 (decomposition)	<b>Designed for water based formulations to provide flash-rust inhibition</b> • Water Based Protective Coatings • In-Can Corrosion Protection • Improves Adhesion
HALOX <sup>®</sup> 515	Organic Corrosion Inhibitor Amino Carboxylate Solution Compliant with the EC Regulation No. 1907/2006 on REACH	pH (neat) 8.9 Specific Gravity @ 25°C 1.06 Form/Appearance Liquid/Slightly Amber Color (Lovibond) 1 % Active Solids 20.5 VOC (EPA Meth 24) (lbs/gal) 0.66 VOC (EPA Meth 24) (g/L) 79.2	<b>Provides galvanic corrosion resistance and superior humidity resistance</b> • Water Based Acrylics • Can eliminate Flash Rust Topcoats • Long Term Corrosion Inhibitor • High Gloss • Effective on Weld Seams
HALOX <sup>®</sup> 515 LFG	Organic Corrosion Inhibitor Amino Carboxylate Solution (Low-Freeze Grade) Compliant with the EC Regulation No. 1907/2006 on REACH	pH (neat) 9.7 Specific Gravity @ 25°C 1.03 Form/Appearance Liquid/Slightly Amber Color (Lovibond) 1 VOC (EPA Meth 24) (lbs/gal) 1.88 VOC (EPA Meth 24) (g/L) 226	<b>Liquid Dual Protection inhibitor during cold weather transport and application</b> • Long Term Corrosion Inhibitor • Water Based Acrylics • Can eliminate Flash Rust • Effective on Weld Seams • High Gloss • DTM Primerless Topcoats
HALOX <sup>®</sup> 520	Organic Corrosion Inhibitor Polymeric Amine Salt Compliant with the EC Regulation No. 1907/2006 on REACH	Specific Gravity @ 25°C 0.93 Form/Appearance Liquid/Slightly Amber Boiling Point (°C) 64	<b>Dual Functionality as an Adhesion Promoter &amp; Corrosion Inhibitor</b> • WR Epoxies • 2K Epoxies • 1K and 2K Polyurethanes • Acrylics • Effective Metal Pretreatment
HALOX <sup>®</sup> 570	Organic Corrosion Inhibitor Organic Acid Amine Complex Compliant with the EC Regulation No. 1907/2006 on REACH	Form/Appearance Powder/ White Melting Range (°C) 67-63°C Density (g/ml) 1.24g <u>Solubility (g/100g solution @ 20°C)</u> Isopropanol ~30 n-Butanol ~20 Diethylene glycol monomethyl ether ~40 Methyl-isobutyl=ketone (MIBK) ~15 Xylene <1 Aliphatic Hydrocarbons <1 (boiling range: 160-200°C) Water (pH=7) <.25	<b>Long-term corrosion inhibitor for water based formulations</b> • Water Based Acrylic Latexes • Co-Polymers • Styrene/Acrylic Latexes • Acrylated Epoxy Esters • 2K Epoxies • Alkyds • Alkyd/Acrylic Blends • 1K and 2K Polyurethanes • DTM Primerless Topcoats • Some Solvent Based Systems • Water Systems • Can Eliminate Flash Rust • Effective on Weld Seams • UV Cured Coatings
HALOX <sup>®</sup> 570 LS	Organic Corrosion Inhibitor Organic Acid Amine Complex Compliant with the EC Regulation No. 1907/2006 on REACH	pH (neat) 7.8 Specific Gravity @ 25°C 1.1 Form/Appearance Liquid/Amber Color (Lovibond) 1 % Active Solids (ASTM D 2369) 28.9	<b>Boost corrosion protection and increase efficiency</b> • Water Based Acrylic Latexes • Co-Polymers • Styrene/Acrylic Latexes • Acrylated Epoxy Esters • 2K Epoxies • Alkyds & Alkyd/Acrylic Blends • 1-2 Pack Polyurethanes • DTM Primerless Topcoats • Effective on Weld Seams

# HALOX<sup>®</sup> Product Application Guide

Organic Corrosion Inhibitors (Solvent)			
PRODUCT	CLASSIFICATION/	PHYSICAL PROPERTIES	SUGGESTED APPLICATIONS
<b>HALOX<sup>®</sup> 630</b>	Organic Corrosion Inhibitor Alkylammonium Salt Solution Compliant with the EC Regulation No. 1907/2006 on REACH	Specific Gravity @ 20°C (g/cm <sup>3</sup> ) 0.99 Form/Appearance Liquid/Slightly Yellow Dynamic Viscosity @ 20°C (mPa.s) 160 <u>Solubility (g/active substance/100g solution @ 20°C)</u> White Spirit >50 Isopropanol >50 n-Butanol >50 Butylacetate >50 Methyl-isobutyl-ketone (MIBK) >50 Propyleneglycol Monomethylether >50 Xylene >50 Water (pH=7) <.01	<b>High Performance liquid for solvent based formulations</b> • 2K Epoxies • Alkyds • Acrylic Resins • 2K Polyurethane Primers • Solvent Based Systems
<b>HALOX<sup>®</sup> 650</b>	Organic Corrosion Inhibitor Organic Di-Acid Compliant with the EC Regulation No. 1907/2006 on REACH	Density (g/ml) 0.99 Form/Appearance Powder/Slightly Yellow Melting Point Approx. 170°C decomposition <u>Solubility (g/active substance/100g solution @ 20°C)</u> Diethylene glycol monomethyl ether 12 Diethylene glycol monomethyl ether 26 Isopropanol 8 1-Methoxy Propylacetate-2 1 Methyl-isobutyl-ketone (MIBK) 2 Propyleneglycol Monomethylether 20 Xylene <.01 Water (pH=7) <.01	<b>Zero VOC High Performance Corrosion Inhibitor</b> • Coil Coatings/Thermoplastics Acrylics or Epoxies • Powder Coatings/Polyester/TGIC • Acid Catalyzed Thermosetting Systems (Melamine or Urea Formaldehyde) • Wash (Etch) Primers • Solvent Based Systems
<b>HALOX<sup>®</sup> 550</b>	Inorganic-Organic Corrosion Inhibitor Compliant with the EC Regulation No. 1907/2006 on REACH	pH (neat) 5-8 Specific Density 0.99 Form/Appearance Liquid/Clear colorless % Solubility 100 VOC (EPA Meth 24) (lbs/gal) 3.71 VOC (EPA Meth 24) (g/L) 445	<b>Fundamental chemistry for improved coating performance</b> • Water Based Coatings • Wash Primers • Solvent Based Coatings • Coil Coatings • Conversion Coatings • Semi to High Gloss Coatings • Thin Films (<1.0 mil) • Anti-fingerprint protection • Reduces black rust on Galvalume <sup>®</sup> metal
<b>HALOX<sup>®</sup> 550 WF</b>	Water-Free Inorganic-Organic Corrosion Inhibitor Compliant with the EC Regulation No. 1907/2006 on REACH	Specific Density 0.99 Form/Appearance Liquid/Clear colorless % Solubility Miscible VOC (EPA Meth 24) (lbs/gal) 8.17 VOC (EPA Meth 24) (g/L) 979	<b>Ultimate synergist for improved coating performance</b> • Water Based Coatings (e.g. WR Alkyds) • Solvent Based Coatings (e.g. Polyurethanes) • Gloss Coatings • Clear Coats • Thin Films (<1.0 mil) • Anti-fingerprint protection • Synergist to jet-milled products • Strontium chromate and chromic acid replacement
<b>HALOX<sup>®</sup> RC-980</b>	Rust Converting Additive Compliant with the EC Regulation No. 1907/2006 on REACH	Specific Gravity @ 25°C 1.07 Form/Appearance Liquid/Slightly Yellow Freeze Cycle Freeze Stable Color (Lovibond) 2 Flash Point PMCC (°F) >218°	<b>Converts Red Rust to Black Iron Oxide Cost Effective</b> • Water Based Latexes • Water Based PVDC • Water Based Coatings • Solvent Based Coatings: Medium Oil Alkyds, Cationic 1K Epoxies, and Cationic 1K Acrylics • Post addable



# HALOX<sup>®</sup> Product Application Guide

FLASH-X <sup>®</sup> Flash-Rust Inhibitors			
PRODUCT	CLASSIFICATION/ CHEMICAL DESCRIPTION	PHYSICAL PROPERTIES (Typical)	SUGGESTED APPLICATIONS
HALOX <sup>®</sup> FLASH-X <sup>®</sup> 150	Flash Rust Inhibitor Additive Compliant with the EC Regulation No. 1907/2006 on REACH	pH (neat) 9.6 Specific Gravity @ 25°C 1.14 Form/Appearance Liquid/Slightly Yellow Color (Lovibond) Light Straw % Active Solids 24 VOC (EPA Meth 24) (lbs/gal) 0.85 VOC (EPA Meth 24) (g/L) 102	<b>Low viscosity, ideal for increasing production output</b> • Water Based Protective Coatings • In-Can Corrosion Protection
HALOX <sup>®</sup> FLASH-X <sup>®</sup> 330	Nitrite Free Flash Rust Inhibitor Additive Some components are not registered under REACH Please consult with your Sales Manager for further information.	pH (neat) 8.3 Specific Gravity @ 25°C 1.21 Form/Appearance Liquid/Clear Colorless Color (Lovibond) Light Straw % Active Solids 68 VOC (EPA Meth 24) (lbs/gal) 1.11 VOC (EPA Meth 24) (g/L) 133	<b>Low odor flash rust inhibitor</b> • Water Based Protective Coatings • Water Jet Blasting and Metal Working Applications

# HALOX<sup>®</sup> Product Application Guide

XTAIN <sup>®</sup> Tannin Stain Inhibitors			
PRODUCT	CLASSIFICATION/ CHEMICAL DESCRIPTION	PHYSICAL PROPERTIES (Typical)	SUGGESTED APPLICATIONS
HALOX <sup>®</sup> BW-100	Phosphosilicate Barium Phosphosilicate Pigment Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 7.5 Oil Absorption (lbs/100 lbs) 37.1 Density (g/ml) 2.8 Form/Appearance Powder/White Mean Particle Size (microns) 5.1 Hegman Grind 5 % Moisture 0.6 % Solubility in water 0.17	<b>Effective in High PVC Alkyd Primers</b>  • Acrylic Latexes • Vinyl Acrylic Latexes • Styrenated Acrylic Latexes • SB Alkyds
HALOX <sup>®</sup> XTAIN <sup>®</sup> A	Phosphosilicate Aluminum Zirconium Phosphosilicate Pigment Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 10 Oil Absorption (lbs/100 lbs) 33.1 Density (g/ml) 3.1 Form/Appearance Powder/White Mean Particle Size (microns) 5.8 Hegman Grind 5 % Moisture 0.5 % Solubility in water 0.1	<b>Premium tannin stain inhibiting pigment for exterior architectural wood coatings</b>  • Acrylic Latexes • Vinyl Acrylic Latexes • Styrenated Acrylic Latexes • SB Alkyds
HALOX <sup>®</sup> XTAIN <sup>®</sup> L-44	Stabilized Zinc Zirconium Complex Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 9 Specific Gravity @25° C 1.3 Form/Appearance Liquid/Clear colorless % Solids 30 VOC (EPA Meth 24) (lbs/gal) 1.26 VOC (EPA Meth 24) (g/L) 151	<b>Prevents stains from migrating to the topcoat</b>  • Provides superior performance and good compatibility in water based coatings systems • Barium & Antimony-Free • Easy to post-add to a coating (1:1 with water) • Eliminates need for zinc oxide • Versatile • Acrylic Latexes • Vinyl Acrylic Latexes • Styrenated Acrylic Latexes • Solvent Based Alkyds
HALOX <sup>®</sup> CZ-170	Zinc Ortho Phosphate Complex Compliant with the EC Regulation No. 1907/2006 on REACH	pH (10% solution by wt) 8.1 Oil Absorption (lbs/100 lbs) 43.5 Specific Gravity 3.6 Form/Appearance Liquid/Clear colorless Mean Particle Size (microns) 4.3 Hegman Grind 5.5 % Moisture 1.5 % L.O.I. (450°C) 7.4 % Solubility in water 0.02	<b>Zinc Ortho Phosphate Complex</b>  • WR Alkyds • Latex Emulsions • High Solids Epoxies • Water Based Epoxy Esters • Acrylic Lacquer Emulsions • Thin Film Applications • Acid Catalyzed Systems • Short Oil Alkyds • Medium Oil Alkyds • Long Oil Alkyds • Solvent 2K Epoxies • Epoxy Esters • Water Reducible Epoxies • Polyesters • PVDC