

# **CONSTRUCTION MATERIALS**

TECHNOLOGIES

# WATER RESISTANCE EVALUATION OF THE KONING EXTERIOR FINISH ASSEMBLY IN ACCORDANCE WITH ASTM E 331 AND SECTION R703.1.1, EXCEPTION 2 OF THE FLORIDA BUILDING CODE, 5<sup>TH</sup> EDITION (2014), RESIDENTIAL (PROJECT NO. KCCI-002-02-02)

For

KONING CONSTRUCTION CONSULTANTS

8301 JOLIET STREET HUDSON, FL 34667

**APRIL 4, 2016** 

- Purpose: Evaluate the Koning Exterior Finish Assembly for water resistance in accordance with Section R703.1.1, Exception 2 of Florida Building Code, 5<sup>th</sup> Edition (2014), Residential and ASTM E 331: Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference. In addition this testing conforms with Section 1403.2, Exception 2 of the Florida Building Code, 5<sup>th</sup> Edition (2014), Building, and 2012 and 2015 International Building Code (IBC).
- **Test Methods:** Testing was conducted in accordance with ASTM E 331-00(2009): *Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.* Testing was modified in accordance with Section R703.1.1 as follows:

Koning Exterior Finish Assembly was tested in 4 feet by 8 feet exterior wall format containing at least one opening, one control joint, one wall/eave interface and one wall sill. The wall assembly was tested at a minimum differential pressure of 6.24 pounds per square foot (299 Pa) for a minimum of 2 hours.

The "passing" criteria for this test is that the exterior wall envelope design shall be considered to resist wind-driven rain where the results of testing indicate that water did not penetrate control joints in the exterior wall envelope, joints at the perimeter of openings penetration or intersections of terminations with dissimilar materials.

**Sampling:** All products applied to the exterior sheathing were provided by Koning Construction Consultants. Below is an itemized list of products that are used in the Koning Exterior Finish Assembly.

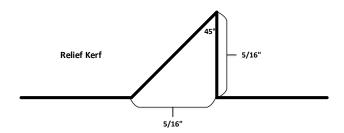
Product Identification	Manufacturer
Tyvek® HomeWrap	DuPont
Tyvek® Taoe	DuPont
Vinyl Casing Bead	Not provided
Vinyl Control Joint	Not provided
Structalath Twin Trac	Structa Wire Corporation
Florida Super Stucco	Argos Cement LLC
MasterSeal NP 150	BASF Corp.
Loxon XP <sup>™</sup> Masonry Coating	Sherwin-Williams

**Specimen:** A 4-ft x 8-ft mock-up was constructed from No.2 2x6 dimensional lumber and sheathed with 7/16" OSB. The OSB sheathing was installed with two (2) offset vertical joints and one horizontal joint and was fastened to the framing with #8 x 2 wood screws spaced 6" o.c. along the edges and intermediate supports. A window cut-out, a galvanized square duct, a Schedule 40 PVC pipe, a square electrical junction box, and an octagon electrical junction box were incorporated into the specimen design. DuPont Tyvek® HomeWrap was placed over the OSB using 1-1/2" plastic cap nails spaced 24" o.c. The Tyvek was cut at the window, and flashed into the opening and sealed at the corners with DuPont Tyvek® Tape. The Tyvek was cut to fit around the other penetrations in the assembly. 5/8" ground x 1-3/4" flange, vinyl casing beads were located around perimeter of

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the specimen and window and attached 24" o.c with #8 x 1" PH wood screws. Structalath Twin Trac was secured through to the sheathing with #8 x 1" PH screws spaced 12" o.c. horizontally and 5" o.c vertically in a staggered pattern. A 1/2" x 4" vinyl control joint was placed vertically in the center of the specimen and attached 24" o.c with #8 x 1" PH wood screws. The stucco finish was prepared by mixing Florida Super Stucco and sand at a 1:3 to 1:4 ratio and applied flush with the casing bead and control joint. A relief kerf, as shows below, was cut into the wet stucco at the casing bead, control joint, and all penetrations. MasterSeal NP 150 was applied in the kerf to seal to the trim and penetrations. After a 7 day cure, Sherwin-Williams Loxon XP<sup>TM</sup> Masonry Coating was applied at 14 mils over the stucco finish.



**Results:** The specimen was tested December 23, 2015. Results of testing are shows below.

Table 1. Results for ASTM E 331 (Modified per Section R703.1.1, Exception 2)	Table 1.	Results for	<b>ASTM E 331</b>	(Modified)	per Section	R703.1.1	Except	tion 2	)
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Property	Test Method	Result	Requirement
Water-Penetration <i>[Pass/Fail]</i> 4' x 8' wall assembly; ∆P=6.24psf for 2h; 3.4 L/m <sup>2</sup> ·min water spray	ASTM E 331	Pass	Water shall not penetrate control joints in the exterior wall envelope, joints at the perimeter of openings penetration or intersections of terminations with dissimilar materials.

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### Statement of Compliance:

The water resistance evaluation of Koning Exterior Finish Assembly indicates compliance with **Section R703.1.1**, **Exception 2 of Florida Building Code**, 5<sup>th</sup> **Edition (2014)**, **Residential**, as well as Section 1403.2, Exception 2 of the Florida Building Code, 5<sup>th</sup> Edition (2014), Building, and 2012 and 2015 International Building Code (IBC).

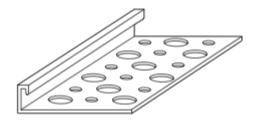
Signed: Zachary Priest, P.E. Director

**Report Issue History:** 

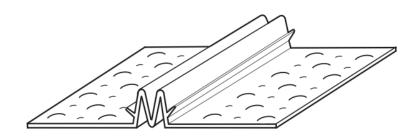
Issue #	Date	Pages	Revision Description (if applicable)
Original	04/04/2016	15	NA

**APPENDIX FOLLOWS** 

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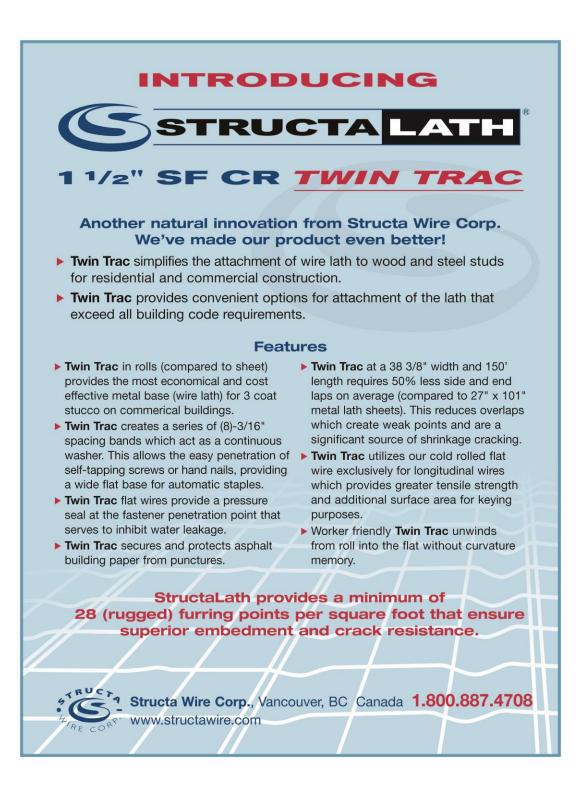
**Vinyl Casing Bead** 



**Vinyl Control Joint** 

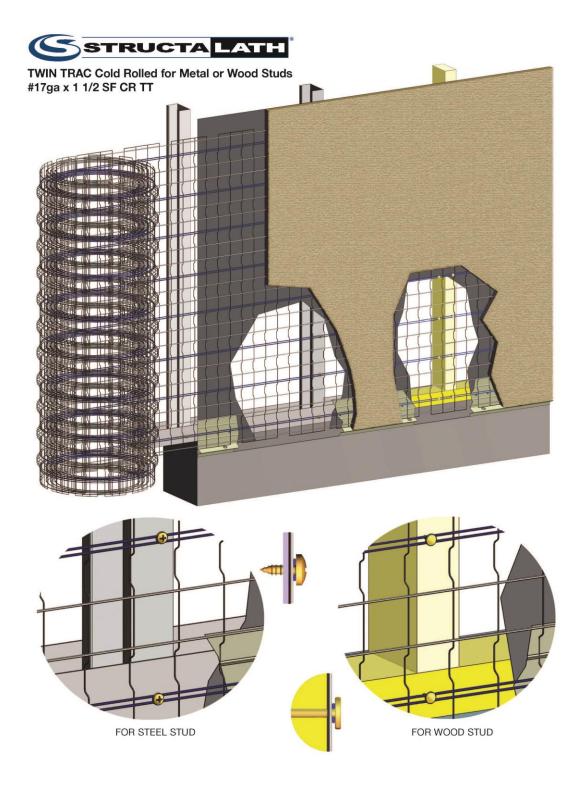
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Appendix A



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Technical Data Guide



# MasterSeal<sup>®</sup> NP 150

Low-modulus, non-sag, elastomeric, hybrid sealant

FORMERLY SONOLASTIC® 150 VLM

### PACKAGING

- 300 ml (10.1 fl oz) cartridges, 30 cartridges per carton

- 20 oz (590 ml) ProPaks, 20 per carton

### COLORS

White, Stone, Limestone, Black, Medium Bronze, Aluminum Gray, Tan, Off-White, Special Bronze, Precast White, Champagne

### YIELD

See page 3 for charts

### STORAGE

Store in original, unopened containers in a cool, dry area. Protect unopened containers from heat and direct sunlight. Storing at elevated temperatures will reduce shelf life.

### SHELF LIFE

15 months when properly stored

**VOC CONTENT** 

Master Builders Solutions by BASF www.buildingsystems.basf.com

less water and exempt solvents

DESCRIPTION

MasterSeal NP 150 is a high performance, very low-modulus, high-movement, non-sag, fast-curing, hybrid sealant

### PRODUCT HIGHLIGHTS

- · Superior adhesion results in a long-lasting bond, helping to reduce call backs
- . Low modulus to accommodate for joint movement (100% extension in EIFS joints with
- little stress on bond line)
- . Can be painted with elastomeric coatings soon after installation
- Easy to gun and tool, speeding up application
- Wide temperature application range
- · Weather resistant for long-lasting
- weathertight seals
- . Fast curing helps to speed up jobsite production . Parapets . Non-staining formula for use on stone and other . Sanitary applications
- sensitive substrates \* Available in ProPaks to reduce jobsite waste and lower disposal costs
- . Meets all state and federal VOC regulations

### SUBSTRATES

- · EIFS
- \* Stucco
- Aluminum · Concrete
- Masonry
- Wood
- Stone Metal
- Vinyl
- . Fiber cement siding

### APPLICATIONS

- · Vertical or horizontal
- · Exterior or interior
- Above grade
- · Joints with high movement
- . In place of silicone sealants
- Store front systems · Expansion joints
- Panel walls
- · Precast units
- · Aluminum, vinyl and wood window frames
- Fascia

### HOW TO APPLY JOINT PREPARATION

1. The product may be used in sealant joints designed in accordance with SWR Institute's Sealants - The Professional's Guide 2.In optimal conditions, the depth of the sealant should be 1/2 the width of the joint. The sealant joint depth (measured at the center) should always fall between the maximum depth of 1/2" and the minimum depth of 1/4". Refer to Table 1.



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Technical Data Guide MasterSeal® NP 150

### Technical Data Composition

hybrid polymer.

### Test Data PROPERTY

Compliances	
• ASTM C 920, Type S, Grade NS, Class 50, Use NT, I	M,
A, and O*	
-canable of +100/-50% movement under twoical field	

MasterSeal NP 150 is a formulation based on

- ASTM C 1382 for use with EIFS wall systems at 100%
- Extension • Federal Specification TT-S-001543A, Type II, Class A,
- Type Nonsag
- Federal Specification TT-S-00230C, Type II, Class A
- Corps of Engineers CRD-C-541, Type II, Class A
- CFI accepted
- USDA compliant for use in areas that handle meat and poultry

\*Refer to substrates in Where to Use.

### **Typical Properties**

TABLE 1

JOINT WIDTH,

IN (MM) 3/2-3/4 (13-19)

3/4-1 (19-25)

1-11/2 (25-38)

Joint Width and Sealant Depth

Shrinkage	None
° F (° C)	(-40 to 82)
Service temperature range,	-40 to 180
PROPERTY	VALUE
i jpiour i oporaco	

SEALANT	WATERPROOFING ATION INSTITUTE
Issued to: BASF Corpora Product: Sonolastic 15	
C719: Pass K Ext:+5	0% Comp:-50%
Substrate: Primed Morta Unprimed Aluminum and [mortar substrates were primed	Glass
C661: Rating 17	
Validation Date: 10/12/13	3 - 10/11/17
No. 1013-VLM1017	Copyright © 2013
SEALANT V	

SEALANT DEPTH AT MIDPOINT, IN (MM)

1/4-3/8 (6-10)

3/8-1/2 (10-13)

1/2 (13)

Movement capability, %	±50	ASTM C 719
Extention	100%	ASTM C 1382
100% modulus, psi (MPa)	35 (0.24)	ASTM C 412
Tensile strength, psi (MPa)	140-180	ASTM D 412
Tear strength, lb/in (kg/cm)	40 (7.1)	ASTM D 1004
Ultimate elongation at break, %	800-1,000	ASTM D 412
Rheological, (sag in vertical displacement), at 120° F (49° C)	No sag	ASTM C 639
Extrudability, sec	2 – 3	ASTM C 1183
Hardness, Shore A, at standard conditions	17	ASTM C 661
Weight loss, after heat aging, %	< 10	ASTM C 1246
Tack-free time, min (maximum 72 hours)	90	ASTM C 1246
Stain and color change	Passes (no visible stain)	ASTM C 510
Bond durability,* pli on aluminum and concrete, +/- 50% movement	Passes	ASTM C 719
Adhesion* in peel, pli (kg/cm), (minimum 5 pli [0.89 kg/cm])		ASTM C 794
Aluminum	35 (6.2)	
Concrete	36 (6.4)	
Artificial weathering, Xenon arc. 2.000 hrs	No Cracking	ASTM G 155

RESULTS

TEST METHOD

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

### Yield

1/2			
1/4 3/8	<del></del>		82
1/4	205	154	122
JOINT DEPTH, (INCHES)	3∕8	1/2	JOINT WIDTH (INCHES) 5⁄8

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Appendix A

Master Builders Solutions by BASF www.master-builders-solutions.basf.us

- 3. In deep joints, the sealant depth must be controlled by closed cell backer rod or soft backer rod. Where the joint depth does not permit the use of backer rod, a bond breaker (polyethylene strip) must be used to prevent three-point bonding.
- 4. To maintain the recommended sealant depth, install backer rod by compressing and rolling it into the joint channel without stretching it lengthwise. Closed cell backer rod should be about 1/8" (3 mm) larger in diameter than the width of the joint to allow for compression. Soft backer rod should be approximately 25% larger in diameter than the joint width. The sealant does not adhere to it, and no separate bond breaker is required. Do not prime or puncture the backer rod.

### SURFACE PREPARATION

Substrates must be structurally sound, fully cured, dry and clean. Substrates should always be free of the following: dirt, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing or curing and parting compounds. membrane materials and sealant residue.

FIFS

connection with this report.

- 1. MasterSeal NP 150 should be applied to the system base coat for best adhesion and to avoid delamination of EIFS finish applied in the joint.
- 2.Base coat must be sound, well bonded, properly cured and of sufficient depth to
- comply with manufacturer's specifications. 3. Certain EIFS systems require the use of a primer. Refer to the EIFS manufacturer
- for recommendations. CONCRETE, STONE, AND OTHER MASONRY Clean by grinding, sandblasting or wire brushing

to expose a sound surface free of contamination and laitance. WOOD.

New and weathered wood must be clean, dry and sound. Scrape away loose paint to bare wood. Any coatings on wood must be tested to verify adhesion of sealant or to determine an appropriate primer.

#### METAL

Remove scale, rust and loose coatings from metal to expose a bright white surface. Any coatings on metal must be tested to verify adhesion of sealant . Not for use in glazing applications. Do not apply or to determine an appropriate primer.

#### PRIMING

- 1.MasterSeal NP 150 is generally a non-priming sealant, but special circumstances or substrates may require a primer.
- Porous materials subject to intermittent water immersion require priming. Use MasterSeal P 179.
- Certain architectural metal finishes may require priming with MasterSeal P 173.
- It is the user's responsibility to check the adhesion of the cured sealant on typical test joints at the project site before and during application. Refer to the technical data guides for MasterSeal P 179 and MasterSeal P 173.
- 2.Apply primer full strength with a brush or clean cloth. A light, uniform coating is sufficient for most surfaces. Very porous surfaces may require a second coat of MasterSeal P 179; however, do not over apply.
- 3.Allow primer to dry before applying MasterSeal NP 150. Depending on temperature and humidity, primer will be tack-free in 15-30 minutes. Priming and sealing must be done on the same day.

#### APPLICATION

- 1.MasterSeal NP 150 comes ready to use. Apply using professional grade caulking gun. Do not open cartridges, ProPaks or pails until preparatory work has been completed.
- 2.Fill joints from the deepest point to the surface by holding an appropriately sized nozzle against the back of the joint.
- 3.Dry tooling is recommended. Proper tooling results in the correct bead shape, neat joints, and optimal adhesion.

#### CLEAN UP

- 1.Immediately after use, clean equipment with MasterSeal 990 or xylene. Use proper precautions when handling solvents.
- 2.Remove cured sealant by cutting with a sharp-edged tool.
- 3.Remove thin films by abrading.

### FOR BEST PERFORMANCE

- . In cold weather, store container at room temperature for at least 24 hours before using. on glass and plastic glazing panels.
- . For proper sealing of joint edges, all window covers must be removed prior to application of sealant. Do not allow uncured MasterSeal NP 150 to come into contact with alcohol-based
- materials or solvents. MasterSeal NP 150 should not be applied adjacent to other uncured sealants and certain
- petroleum based products MasterSeal NP 150 can adhere to other residual
- sealants in restoration applications. For best results, always clean the joint as advised in the Surface Preparation section of this data guide. A product field adhesion test for MasterSeal NP 150 within the specific application is always recommended to confirm adhesion and suitability of the application.
- . MasterSeal NP 150 should not be used for continuous immersion in water. Contact Technical Service for recommendations . Do not apply over freshly treated wood. Allow six
- months for weathering • Do not use MasterSeal P 179 on nonporous
- surfaces such as aluminum, steel, vinvl or Kynar 500 based paints. Use MasterSeal P 173 on coated metals when testing dictates
- · Lower temperatures and humidity will extend curing times
- MasterSeal NP 150 can be painted over after a thin film or skin forms on the surface
- · Pursuant to accepted industry standards and practices, using rigid paints and/or coatings over flexible sealants can result in a loss of adhesion of the applied paint and/or coating, due to the potential movement of the sealant. However, should painting and/or coating be desired it is required that the applicator of the paint and/or coating conduct on-site testing to determine compatibility and adhesion Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the iobsite

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> Technical Data Guide MasterSeal® NP 150

### HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Safety Data Sheets and product label information for this product prior to use. The SDS can be obtained by visiting www.master-builders-solutions.basf.us, e-mailing your request to basfbscst@basf.com or calling 1(800);433-9517. Use only as directed. For medical emergencies only, call ChemTrec<sup>®</sup> 1(800) 424-9300.

### LIMITED WARRANTY NOTICE

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Appendix A

# DuPont<sup>\*\*</sup> Tyvek<sup>\*</sup> HomeWrap<sup>\*</sup>

PHYSICAL PROPERTIES DATA SHEET

PROPERTIES	METHOD	DUPONT <sup>™</sup> TYVEK <sup>®</sup> HOMEWRAP <sup>®</sup>
Air Penetration Resistance	ASTM E2178 (cfm/ft²@1.57 psf)	< .004
	Gurley Hill (TAPPI T-460) (sec/100cc)	1200
	ASTM E1677	Туре 1
Water Vapor Transmission	ASTM E96-05 Method A (g/m²-24 hrs) (perms)	400 56
	Method B (glm2-24 hrs) (perms)	370 54
Water Penetration Resistance	ATTCC 127 (cm)	250
Basis Weight	TAPPI T-410 (oz/yd²)	1.8
Breaking Strength	ASTM D882 (Ibs/in)	30/30
Tear Resistance (Trapezoid)	ASTM D1117 (lbs)	8/6
Surface Burning Characteristics	ASTM E84 Flame Spread Index	15 Class A
	Smoke Developed Index	15 Class A
Ultra Violet Light Exposure (UV)		120 days (4 months)

Test results shown represent roll averages. Individual results may vary either above or below averages due to normal manufacturing variations, while continuing to meet product specifications

For more information about DuPont™ Tyvek® Weatherization Systems, please call 1-800-44-Tyvek or visit us at www.Construction.Tyvek.com

WARNING: DuPont<sup>™</sup> Tyvek<sup>®</sup> is combustible and should be protected from an open flame and other high heat sources. If the temperature of DuPont™ Tyvek® reaches 750 °F (400 °C), it will burn and the fire may spread and fall away from the point of ignition

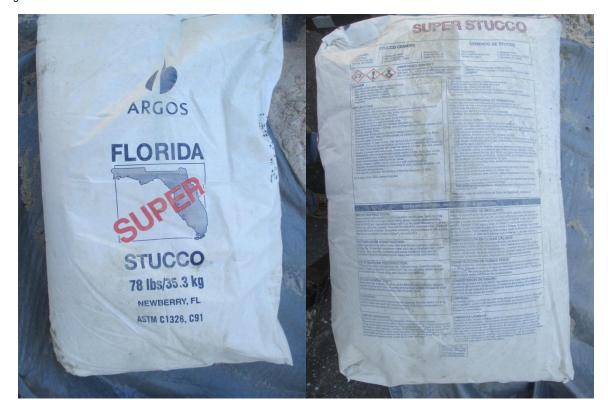




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Sherwin Williams.

As of 10/05/2015, Complies with:

LEED® 09NC

N/A N/A

### 102.39

## Loxon<sup>®</sup> XP Waterproofing System A24-1400 Series

CARB         Yes         LEED000CS         NA           CARB SCM2007         Yes         LEED0 H         NVA           MPI #         Yes         NGBS         Yes		
CHARACTERISTICS	SPECIFICATIONS	SPECIFICATIONS
CHARACTERISTICS         Loxon XP is an exterior, high build coating that provides excellent flexibility, durability and weather resistance. This product will protect against wind-driven rain when used on concrete, CMU, stucco and shotcrete/gunite. It is highly alkali and efflorescence resistant. This may be applied to a surface with a pH of 6 to 13.         • Apply directly to fresh concrete (at least 7 days old)         • Shotcrete/gunite surfaces may be painted after 3 days         • Can be applied over high pH (up to 13) substrates         • No primer required         • Improved roller appearance         • Can be applied down to 35°F         PHYSICAL PROPERTIES         Wind-Driven Rain Test       Passes         ASTM D6904-03       2 cts Loxon XP @ 6.4-8.3 mils dfl/ct         Water Vapor Permeance	SPECIFICATIONS         Color:       Most colors         1 coat system, brush, roller, or spray applied, coverage per coat:         14-18 mils wet       6.4 - 8.3 mils dry 90 - 115 sq f/gal         Can be applied up to 40 mils wet.       Coverage will vary with the substrate and the texture.         Coverage on porous & rough stucco 80 square feet per gallon.       Drying Time, @ 50% RH:         Temperature and humidity dependent       @ 35-45°F         @ 35-45°F       45°F+         Touch:       6 hour         A flim thickness dependent.       N/A         Pring and recoat times are temperature, humidity, and film thickness dependent.       N/A         Finish:       0-10 units @ 85°         Tinting with CCE only:       Base       oz/gal         Base       oz/gal       Strength         Extra White       0-5       100%         Ultradeep       4-12       100%         Voltree Type:       Styrene Acrylic         A24W01451       VOC (less exempt solvents):       <50 g/L; <0.42 lb/gal	SPECIFICATIONS For proper waterproofing performance and to resist alkalies, 2 coats of the coat- ing MUST be applied between 14.0 - 18.0 mils wet per coat. A total dry film thickness of 12 - 16 mils of topcoat and a surface with 10 or less pinholes per square foot is required for a waterproofing system. For extremely porous block a coat of Loxon Block Surfacer may be required to achieve a pinhole free surface. For rehabilitating existing concrete water tanks, additional products may be used. <b>Concrete, Stucco, Concrete Block,</b> <b>CMU, Split-face Block, and other Ce- mentitious surfaces</b> 1 ct. Loxon Block Surfacer (if needed) or Lox Loxon Conditioner (if needed) 1-2 cts Loxon XP Spray and backroll on porous & rough stucco to achieve required film build and a pin-hole free surface. <b>Previously Coated in good condition</b> After power washing, apply 1 coat of Loxon XP over the surface. <b>Waterproofing System</b> • Two coats of topcoat • 6.4 to 8.3 mils dft per coat • 10 or less pinholes per square foot <b>Incidental Wood</b> : 1 ct. Exterior Latex Wood Primer 1-2 cts Loxon XP <b>Incidental Metal:</b> (steel, galvanized, or aluminum): 1 ct. Pro Industrial Pro-Cryl Primer 1-2 cts Loxon XP
EN 1062-7 Method Aup to 2.5 mm @-10°C		<u> </u>

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## LOXON<sup>®</sup> XP Waterproofing System A24-1400 Series

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SURFACE PREPARATION	SURFACE PREPARATION	CLEANUP INFORMATION
WARNING! Removal of old paint by sanding, scraping or other means may generate dust or fumes that contain lead. Exposure to lead dust or fumes may cause brain damage or other adverse health effects, especially in children or pregnant women. Controlling exposure to lead or other hazardous substances requires the	Sealing and Patching—After cleaning the surface thoroughly, prime any bare surface with Loxon XP, apply an elastomeric patch or sealant if needed, allow to dry, then topcoat. To improve the performance consider: • Use caution when preparing the substrate to create a uniform surface.	Clean spills, spatters, hands and tools immediately after use with soap and warm water. After cleaning, flush spray equipment with a compliant cleanup solvent to prevent rusting of the equipment. Follow manufacturer's safety recommendations when using solvents.
use of proper protective equipment, such as a properly fitted respirator (NIOSH approved) and proper containment and cleanup. For more information, call the	<ul> <li>Cracks, crevices, and through-wall openings must be patched with an elastomeric patch or sealant.</li> </ul>	CAUTIONS For exterior use only.
National Lead Information Center at <b>1-800-</b> <b>424-LEAD</b> (in US) or contact your local health authority.	<ul> <li>Fill voids and openings around window and doors with an elastomeric patch or sealant.</li> <li>Stripe coat all inside and outside</li> </ul>	Protect from freezing. Non-photochemically reactive. Not for use on horizontal surfaces (floors, roofs, decks, etc.) where water will
Remove all surface contamination by washing with an appropriate cleaner, rinse thoroughly and allow to dry. Scrape and sand peeled or checked paint to a sound	corners and edges with 1 coat of Loxon XP coating.	collect. Not for use below grade. Will not withstand hydrostatic pressure.
surface. Sand glossy surfaces dull. Seal stains from water, smoke, ink, pencil, grease, etc. with the appropriate primer/ sealer. Recognize that any surface preparation short of total removal of the old coating may compromise the service length of the system.	<u>APPLICATION</u> When the air temperature is at 35°F, substrates may be colder; prior to painting, check to be sure the air, surface, and material temperature are above 35°F and at least 5°F above the dew point. Avoid using if rain or snow is	CAUTION contains ZINC. Use only with adequate ventilation. To avoid overexposure, open windows and doors or use other means to ensure fresh air entry during application and drying. If you experience eye watering, headaches, or dizziness, increase fresh air, or wear respiratory protection (NOSH approved) or leave the area. Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other
Concrete, CMU, Stucco On tilt-up and poured-in-place concrete, commercial detergents and sandblasting may be necessary to remove sealers, release compounds, and to provide an anchor pattern. Concrete and mortar must be cured at least 7 days at 75°F. Fill bugholes, air pockets, cracks, and other	expected within 2-3 hours. Do not apply at air or surface temperatures below 35°F or when air or surface temperatures may drop below 35°F within 48 hours. Do not reduce. Brush - Use a nylon/polyester brush. Roller - Use a ½" to 1½" nap synthetic	The set of the starting of the
voids with an elastomeric patch or sealant. Rough surfaces can be filled to provide a smooth surface.	roller cover. <b>Airless Spray</b> Pressure, minimum	HOTW 10/05/2015 A24W01451 18 00 FRC, SP
Incidental Metal Wash to remove any oil, grease, or other surface contamination. All corrosion must be removed with sandpaper, steel wool, or other abrading method.	Tip, minimum	The information and recommendations set forth in
Incidental Wood Sand any exposed wood to a fresh surface. Patch all holes and imperfections with a wood filler or putty and sand smooth. All patched areas must be primed.	between coats • Spray application with backrolling • Power rolling Spray and backroll on porous & rough stucco to achieve required film build and a pin-hole free surface.	this Product Data Sheet are based upon tests con- ducted by or on behalf of The Sherwin-Williams Com- pany. Such information and recommendations set forth herein are subject to change and pertain to the product offered at the time of publication. Consult your Sherwin-Williams representative or visit www.paintdocs.com to obtain the most current ver- sion of the PDS and/or an SDS.

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