



INDUSTRIES, INC.

**ICBO ES ER-5615**

When used a component of AVM System 100  
Elasto Fiberdeck® 100, and installed per  
ICBO ES ER-5615

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Installation Instructions For:  
**AVM System 6400**  
**AVM Crete 6400**

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**Installation Instructions For:  
AVM System 6400  
AVM Crete 6400**

**PART I-GENERAL**

**1.01 Description**

System 6400, AVM-Crete 6400 is a two component, polymer modified, cementitious, trowel grade cement mix for sloping, leveling or patching. The AVM-Crete 6400 may be applied from 0" up to 4" thick over new or existing concrete slabs, and from 1/4" up to 4" thick over new or existing plywood decks.

**1.02 Applicator**

The applicator shall either be completely experienced in the application of the materials of this system or has carefully read and understood these installation instructions prior to commencing the work.

**1.03 Product Delivery, Storage and Handling**

- A. Delivery of all the AVM System 6400 materials to the job site must be in their original sealed containers, with the manufacturer's name and label intact.
- B. Store at temperatures between 50°F and 90°F. Do not store materials in direct sunlight or where they may be damaged by water or rain. Bags must be kept Dry!
- C. Keep all materials out of the reach of children.
- D. Should irritation occur, liberally flush affected areas with water. If irritation continues, see a physician immediately.

**1.04 Project Conditions**

- A. Do not apply materials at temperatures below 50° F and falling or if precipitation is imminent. Do not apply materials at temperatures above 90° F or rising.
- B. Warn personnel against hazards of materials to the skin and eyes.
- C. No special protective gear is required during the application of the system materials, except for eye protection such as safety goggles and a dust mask.
- D. Protect adjacent surfaces which could be damaged during the application procedure.

**PART II - PRODUCTS**

**2.01 AVM Crete 6400 System Materials**

AVM Crete 6400:	A pre-proportioned Kit consisting of AVM Aggregate 400 and AVM Concrete Additive 7400.
AVM Aggregate 400:	50 pound bag of AVM Aggregate 400. (Cementitious)
AVM Concrete Additive 7400:	1.00/5.00 Gal containers of the AVM Concrete Additive 7400 Liquid.
AVM Metal Lath 2.5#:	Electro Galvanized metal lath 2.5LBS per sq/yard ICBO 4135, ASTM 8924. (28"x96" each, in bundles of 10)
Primer:	AVM Primer 100, suitable for wood, concrete, and sheet metal substrates.
Patching Compound:	AVM Acripatch 5020 for application at joints, voids, cracks, and wood knots not exceeding 1/4 inch maximum thickness.

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**PART III - EXECUTION**

**3.01 Inspection of Plywood Substrates**

- A.** Plywood must be at least 5/8 inch thick, Exterior Grade, Structural plywood with maximum span of 16" between supports. All plywood edges must be properly supported and fastened to the support structure below. Joints must be properly blocked. All nails or screws shall be flush to the plywood surface or slightly sunk in. Plywood to have 1/8 inch spacing between sheets, installed perpendicular to the supports below and installed per code.
- B.** Plywood substrate shall be clean, free of dirt, dust, oil, grease and other materials that can prevent or reduce the bonding of the system to the plywood.
- C.** Plywood shall be securely attached with glue to wood beams and joists. In lieu of glued connections, screw or nail plywood with non-rising, ring shank nails spaced at 6 inches on centers maximum.
- D.** Damaged plywood substrate areas with noted defects or deflections shall be repaired or replaced prior to commencement of deck system application.
- E.** Verify that there is enough height to install the AVM Crete 6400 to provide proper slope (recommended final slope: 1/8"-1/4" fall per foot).
- F.** Verify that all sheet metal flashing and related accessories are properly secured and joints solidly imbedded in sealant. Install Galvanized or preferably Bonderized edge metals where shown or required for a complete installation.
- G.** It is recommended to install the Wall-To-Deck sheet metals (Diato Deck, Zee Bars, etc.) over the AVM Crete, if possible. If the metals are already in place, install the AVM Crete over them.

**3.02 Inspection of Concrete Substrates**

- A.** Concrete substrate shall be clean, free of dirt, dust, oil, grease and curing agents.
- B.** Concrete finish shall be straight without waviness or noted defects, troweled and finished with a light broom surface texture.
- C.** Concrete shall have a minimum 28 day cure time and shall have achieved a minimum compression strength of 2000 psi.
- D.** Damaged concrete surfaces with noted defects shall be repaired prior to commencement of the deck system application.
- E.** Verify that there is enough height to install the AVM Crete 6400 to provide proper slope (recommended final slope: 1/8"-1/4" fall per foot).
- F.** Verify that all sheet metal flashing and related accessories are properly secured and joints solidly imbedded in sealant. Install edging metal where shown or required for a complete installation.
- G.** Expansion Joints: DO NOT COVER ANY EXPANSION JOINTS! If expansion joints exist, contact AVM Industries for further instructions on how they should be handled. You may also refer to supplied details for suggested waterproofing methods of the expansion joints.

**3.03 Preparation of Plywood Substrates**

- A.** Clean (scrape if necessary) all sheet metal areas to receive the deck coating. Sheet metals made out of Galvanized or Bonderized Steel need to be wiped clean using a rag and water mixed with a strong detergent. (Make sure all oil residues are removed) Remove all paint from Cast Iron Drains by sanding them first!
- B.** Caulk all exposed sheet metal joints, and other hard to reach areas. Especially areas prone to leaking. Special attention should be given to the following areas: Corners, around drains and scuppers, voids, holes, and around posts.
- C.** Optional: Seal plywood joints and cracks flush with the AVM Acripatch 5020 patching compound. (Required for 1-hour fire rating)

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AVM Crete 6400**

- D. Thoroughly clean the areas to receive the AVM Crete 6400 with a blower to remove all dust and debris.

**3.04 Preparation of Concrete Substrates**

- A. Remove latence, oil, grease, curing agents, debris and other deleterious materials from surfaces scheduled to receive application. High pressure washing is highly recommended. Acid washing might be needed as well. Remove all paint from Cast Iron Drains by sanding them first!
- B. Clean hairline cracks and rout out cracks larger than 1/8 inch. Seal cracks and joints flush with the AVM Acripatch 5020 patching compound.
- C. Just prior to beginning the installation of the deck system, thoroughly clean the areas to receive this work with a blower to remove all debris and dust from the work area.
- D. Expansion joints are a very critical, yet sensitive areas to be waterproofed and can fail if not properly handled. There are many different methods to waterproof expansion joints. To ensure system compatibility and water tightness AVM Industries must pre approve the suggested expansion joint's waterproofing method(s). Therefore, please submit to us the expansion joint's details in the architectural drawings, the "Spec Book" and any other available information for pre approval.

**3.05 System Application**

*Important Note: The following material coverages may vary based on job conditions, Substrate conditions and other factors. Please read the coverage chart carefully prior to the application of the AVM Crete 6400.*

**Installing the AVM Crete 6400 Read Instructions Carefully!**

**Installing the AVM Crete 6400 over Concrete Substrates: Steps A & C.**

**Installing the AVM Crete over Plywood Substrates: Steps A, B & C are required!**

- A. **Primer:** Apply AVM Primer 100 to all plywood, sheet metal or concrete surfaces scheduled to receive the AVM Crete 6400. Apply at the rate of approximately one (1) gallon per 200-300 square feet. Allow primer to cure until dry. (approximately 15-45 minutes depending on temperature and wind conditions) Cover all primed areas with AVM Crete 6400 within 12 hours of initial primer application or re priming shall be required.
- B. **Metal Lath:** Lay out the AVM Metal Lath 2.5# on the entire plywood area to receive the AVM Crete. Do **NOT** overlap sheets. Terminate the AVM metal lath 2.5# ¼ inch away from any flashing metals. Fasten the AVM Metal Lath 2.5# sheets by stapling them to the deck using 16 gauge Galvanized staples (or other non rusting type) with 1 inch crown and 5/8" inch long legs at the rate of 16 staples per square foot.
- Seems:** Lay the sheets of the AVM Metal Lath 2.5# as close as possible to each other without overlapping them. (Maximum distance between sheets should not exceed ¼ inch). Staple the sheets together at the rate of one staple per inch (one inch on center), and by shooting one leg of the staple into one sheet and the other staple leg into the other sheet, thus tying both sheets together.
- Drains:** The layout of the AVM Metal Lath 2.5# depends on the type of drain. Make sure that the water will flow over the lath and into the drain. Do not allow the water to go anywhere but into the drain. Remove all paint from Cast Iron Drains by sanding them first!
- C. **AVM Crete:** Apply the AVM-Crete only at temperatures ranging from 50°-90°F. Mix one bag of the AVM Aggregate 400 with one gallon of the AVM Concrete Additive 7400 using an electric drill and paddle. **Mix Well!** (For larger quantities, a mechanical mixer may be used) Apply the AVM Crete by using a trowel or float. Make sure all the holes in the metal lath are covered. **DO NOT** apply more than 1.0" in thickness. If more than 1.0" in thickness of the AVM Crete 6400 is required, add ½ gallon (approximately 7 pounds) of dry 1/4" Pea Gravel to each mix of 1 gallon of AVM Concrete Additive 7400 and one bag of AVM Aggregate 400. (Fill ½ of an empty 1-gallon AVM Concrete Additive 7400 plastic bottle with the dry ¼ inch Pea Gravel, and add it to the mix.)
- Curing Time:** For AVM Crete ½ inch thick or less allow 24-48 hours curing time. For AVM Crete over ½ inch thick allow a minimum of 72 hours curing time. (The curing times are based on nice sunny days reaching 75°F and no more than 50% relative humidity. Actual curing times may vary based on weather conditions) Do not proceed to the next step if the AVM Crete has not sufficiently cured.

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**3.06 Quality Control**

- A. Visually inspect all surfaces to ensure a full and proper application, especially at corners, drainage scuppers and hard to reach areas.
- B. All unsatisfactory areas shall be repaired prior to final acceptance.

**3.07 Protection of Installed Work**

- A. The completed system shall be protected from all pedestrian traffic for the first 24 hours after application. (Light foot traffic may resume after 4-6 hours, especially in applications not exceeding ¼ inch in total thickness)
- B. Protect completed system from "heavy" pedestrian and wheeled traffic for the next 72 hours.

**3.08 Clean Up**

- A. At completion of installation remove all temporary protection and barricades from the work.
- B. Clean entire work area or where needed. Repair all damage or remove and replace work which cannot be repaired. Touch up all marred and abraded surfaces.

**3.09 Limitations**

- A. Although the AVM Crete 6400 may be applied up to 4" thick, most plywood decks will not support the weight of more than 1.5-2 inches of cement) *Always consult with your engineer, architect or building official prior to installing the AVM Crete 6400 thicker than 1" over plywood substrates.*
- B. When installing the AVM Crete 6400 thicker than 1.0", dry, ¼ inch Pea Gravel must be added. Refer to section 3.05, sub section 'C' for details.

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**PART IV - METHOD OF REPAIR**

**Repairing Damage to the AVM Crete 6400 (Substrate is not damaged)**

**4.01 Damage Description:** AVM Crete 6400 is peeling or cracking. (Crack's width does not exceed 1/4")

**Method of Repair:**

1. Scrape or chisel off any loose cement.
2. Route cracks exceeding 1/8" wide.
3. Remove anything that might prohibit bonding. (High pressure washing is recommended)
4. Prime areas with AVM Primer 100.
5. Fill the cracks with AVM Acripatch 5020 or AVM Crete 6400.
6. Allow to properly cure.

**4.02 Damage Description:** AVM Crete 6400 is peeling or cracking and the substrate is damaged as well. Or, AVM Crete 6400 is cracking, and the cracks exceed 1/4" in thickness.

**Method of Repair:**

1. You **MUST** contact AVM Industries or an authorized AVM Industries installer to review the damage. Since the substrate is damaged, the repairs must be done very carefully to ensure the Structural Strength of the damaged deck areas are not compromised!

**\*\*\* END OF SECTION 03500, Installation Instructions for AVM Crete 6400 \*\*\***

Version: May 21, 2000

See Technical Data, Specifications and Coverage Chart on the following page.

**Installation Instructions For:  
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 AVM Crete 6400**

**PART V - COVERAGE CHARTS AND SPECIFICATIONS**

*The following coverages are based on controlled tests. Actual coverages may vary.*

Materials	One Kit Makes	One Kit Covers at 1/8" Thick	One Kit Covers at 1/4" Thick	One Kit Covers at 1/2" Thick
AVM Crete 6400	4 Gallons of Mixed Product	40 Square Feet	20 Square Feet	10 Square Feet
Weight of 1 sq. ft. of Crete 6400 installed and Cured		@ 1/8" thick = ~1.25 Lbs	@ 1/4" thick = ~2.50 Lbs	@ 1/2" thick = ~5.00 Lbs

Materials	Over Plywood	Over Concrete	Over Sheet Metal
AVM Primer 100	200-300 Sq. Ft./Gal.	200-300 Sq. Ft./Gal.	200-300 Sq. Ft./Gal.

Technical Data - AVM System 6400	
Cement Color:	Gray or White
Compressive Strength: ASTM C39,C172,C192,C470	7 Days: 2500 PSI 28 Days: 3700 PSI
Fire Rating	Class A + 1 Hour over 2"x8" Joists. (When installed as part of AVM System 100, per ICBO ES ER-5615)

General Data - AVM System 6400	
Storage Conditions:	Store dry at 50-90F. If frozen, discard
Shelf Life: (All Components)	One year in original unopened packaging. Metal Lath may be used if still in good condition.
Cement Mixing Ratio:	1.0 gallon AVM additive 7400 to one 50 pound bag of AVM Aggregate 400. (Available in a pre-proportioned kit)

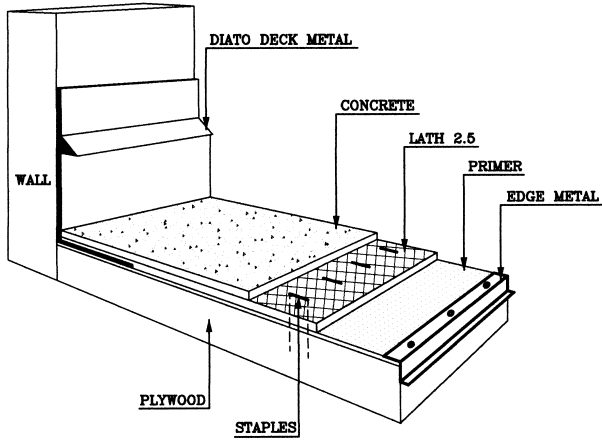
Packaging:	
AVM Acripatch 5020	2.0 / 5.0 Gal Pails
AVM Aggregate 400	50 Lbs Bag
AVM Additive 7400	1.0 / 5.0 Gal pails
AVM Metal Lath 2.5#	10 sheets/bundle
AVM Primer 100	2.0 / 5.0 Gal pails

Approximate Shipping Weights:	
AVM Acripatch 5020	2.0/5.0 Gal 15 / 39 Lbs
AVM Aggregate 400	50 Lbs./Bag
AVM Additive 7400	1.0/5.0 Gal 9/46 Lbs
AVM Metal Lath 2.5#	5 Lbs./sheet
AVM Primer 100	2.0/5.0 Gal 18 / 46 Lbs

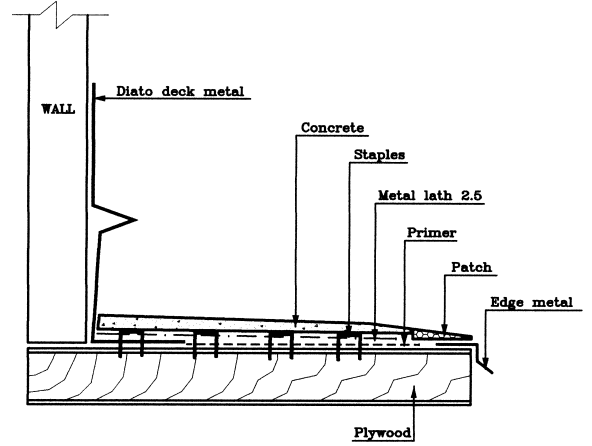
See Details on following Page:

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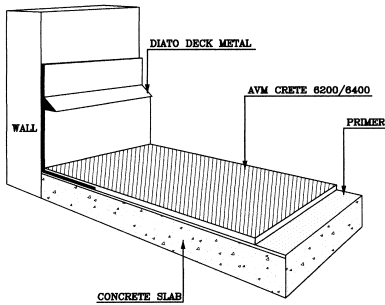
PART VI - DETAILS



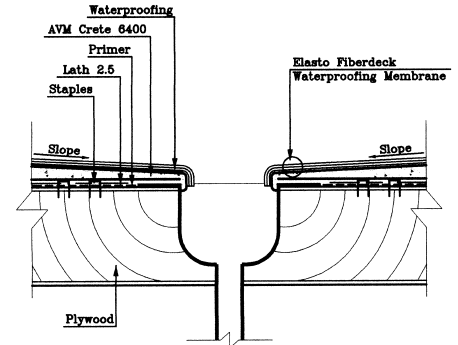
60.1 AVM Crete 6400 Over Plywood Substrate



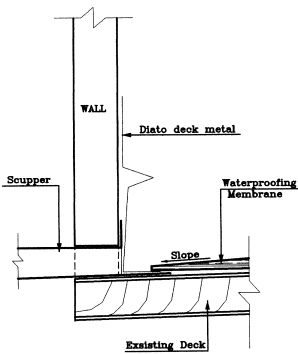
60.2 AVM Crete 6400 Over Plywood Substrate



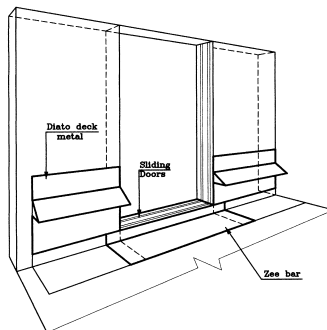
60.3 AVM Crete 6200 / 6400 Over Concrete Substrate



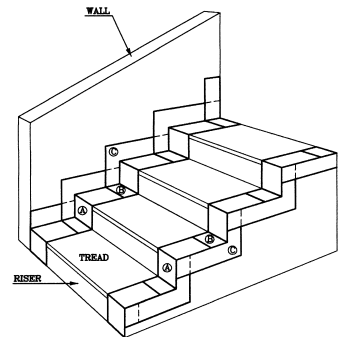
90.1a Elasto Fiberdeck® Drain



90.3 AVM Scupper



90.4 Sliding Doors / Entry Doors Flashing



90.7 Sheet Metals (Flashing) for Stairs