



Stars Management DMCC

SUBMITTAL

AIM #1

(Urethane Industrial Membrane)



Description

AIM #1 is a liquid applied urethane coating that forms a very tough, high performance barrier. It is used as a coating to protect and waterproof concrete gullies, docks and marinas, tile and concrete pipes, chemical safety dikes and wash-out basins. AIM #1 cures to a rubber-like finish that possesses excellent elasticity and will resist attack from the environment and from exposure to a wide variety of industrial chemicals.

Outstanding Features:

- Forms a continuous membrane that resists penetration of a wide variety of chemicals
- Rapidly develops a high tensile strength and good elongation properties
- May be used on vertical, pitched, and horizontal surfaces
- Allows for movement of the substrate while maintaining excellent toughness
- Performs equally well as a coating, buried membrane, or below grade waterproofer
- Cures quickly; easy to apply

Various Uses:

- Provides a waterproof basecoat on concrete parking structures.
- Forms a tough, buried waterproof membrane beneath pavers, etc in plazas, balconies and outdoor recreation areas.
- Waterproofing below tank bottoms and fixed equipment
- Waterproofs basements, crawl spaces, tunnels, junction boxes and shower pans.

Specifications:

Coating Type	Moisture-cure urethane
VOC	200 gms/liter
Pot Life	(Single Component)
Shelf Life	24 months
Recommend Thickness	40 mils dry film thickness
Coverage	30 to 40 square feet/gallon
Packaging	5 U.S. gallons (standard size)
Color	Black

**Application:**

Caution! Read this entire data sheet before continuing.

All surfaces to be treated must be clean, dry and free of all loose debris, oil, grease, and any other substance that would interfere with proper bond. A careful inspection of the surface should be made to detect any signs of damage or defects, and all repairs should be completed before application may proceed. Once preparation is completed, AIM #1 may be applied straight from the container after 3 minutes of low speed mechanical stirring. AIM #1 may be applied using a brush, roller, or airless spray technique at a wet film thickness of 30 mils. Andek recommends, in areas where reinforcement fabric is required, that Roofab (a specialty polyester fabric) be used. The fabric should be encapsulated between 2 coats of AIM #1 at a rate of 3-4 gallons per 100 square feet overall.

Clean up:

Equipment may be cleaned after use with xylene or toluene before AIM #1 begins to dry.

Maintenance:

Repair any damaged areas by following the instructions in the application section of this data sheet.

Limitations:

Protect AIM #1 from direct sunlight. This product is a moisture curing urethane and is packaged in specially sealed air-tight containers. If damaged, air and moisture may enter the container and cause premature curing. Cure time is 24 hours at 70°F (70% R.H.)

Precautions:

Warning! This product is combustible. Avoid sparks and open flames. Use only in well ventilated areas. Contains solvent and reactive isocyanate groups. Do not get in eyes or on skin or clothing. Wear chemical splash goggles, coveralls and rubber gloves when handling this product. Inhalation should be avoided. Persons with known respiratory allergies should avoid exposure to this product. For contact with skin or eyes, flush with clear water for 15 minutes. In case of inhalation, or in the event of eye contact, seek immediate medical attention.

Keep out of reach of children and pets.



Technical Data:

Moisture Vapor Transmission	8.4 gms/M ² /24 hours	ASTM E-96
Flashpoint	105°F	Seta
Solids Content	90% (B.W.);93% (B.V.)	ASTM D-1044
Softening Point (R&B)	240°F	ASTM D-903
Viscosity at 70°F	7,000 cps	ASTM D-903
Puncture Resistance	34 psi	FTMS 101B
Impact Resistance	4mm indent	BS3900 (E3)
Tear Strength (minimum)	17 psi	ASTM D-624
Tear Strength (maximum)	26 psi	ASTM D-624

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MATERIAL SAFETY DATA SHEET
U.S. Department of Labor
Occupational Safety & Health Administration

AIM #1

SECTION 1 – IDENTIFIERS

MANUFACTURER: Andek Corporation
TRADE NAME: AIM #1
CHEMICAL FAMILY: Urethane Prepolymer Solution

SECTION 2 – HAZARD IDENTIFICATION & EMERGENCY OVERVIEW

EMERGENCY OVERVIEW: Toxic gases may be given off during burning or thermal decomposition. Closed container may forcibly rupture under extreme heat or when contents have been contaminated with water.

EFFECTS OF OVEREXPOSURE:

SKIN: Liquid may irritate skin.
EYES: Contact may cause severe damage; vapor may irritate.
BREATHING: Inhalation may cause headache, dizziness, nausea and irritation of respiratory tract.
SWALLOWING: May be harmful or fatal if swallowed.

SECTION 3 – COMPOSITION

<u>COMPONENT</u>	<u>CAS #</u>	<u>APPROX %</u>	<u>TLV</u>
Iron Oxide	1309-37-1	16.2	
Barium Sulfate	7727-43-7	13.8	
Naphtha, Light Aromatic Solvent	64742-95-6	10.0	
Chlorinated Paraffin	8002-74-2	16.2	
Methylene Bisphenyl Isocyanate	101-68-8	2.8	
Polyether Prepolymer (Isocyanate Solution) boiling point <300°C; flash point >23°C)	N.O.S.	31.5	
Aromatic Hydrocarbon Resin	64742-90-1	9.5	

KNOWN CARCINOGENS OR MUTAGENS - TYPE & DEFINITION – None known.

SECTION 4 – FIRST AID MEASURES

SKIN: Clean thoroughly with waterless hand cleaner, then follow with soap and water.
EYES: Flush with water for 15 minutes and seek immediate medical attention.
BREATHING: Move victim to fresh air. If asthmatic conditions occur, call a physician.
SWALLOWING: Do NOT induce vomiting. Seek immediate medical attention.

SECTION 5 – FIRE & EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): 108°F. Closed Cup (ASTM D50).
FLAMMABLE LIMITS: Lel 0.9; Uel 6.0.
EXTINGUISHING MEDIA: Carbon dioxide; dry chemical; foam.
SPECIAL FIRE FIGHTING PROCEDURES: If excessive fumes or smoke is encountered, wear self-contained respiratory equipment and full protective clothing.
UNUSUAL FIRE & EXPLOSION HAZARDS: Sealed containers may build up pressure if exposed to heat (fire). Water can be used to cool the exterior of the containers.
DECOMPOSITION PRODUCTS: Oxides of carbon, nitrogen, aluminum, possible HCN, polyurethane combustion compounds and halogens

SECTION 6 – SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Cover with a layer of sand or other suitable absorbent. Use protective measures as outlined under Section 8 below. Avoid contact with eyes, skin or clothing.

SECTION 7 – HANDLING & STORAGE

Avoid contact with moisture. Isocyanates react with water and generate CO² which may rupture sealed containers. Store between 40° and 80°F.

SECTION 8 – PERSONAL PROTECTION/EXPOSURE CONTROLS

RESPIRATORY PROTECTION (SPECIFY TYPE): In confined spaces use fresh air hood or NIOSH certified organic vapor canister unit. If used outdoors, ventilate well using a general or local exhaust ventilation.

EYE PROTECTION: Wear chemical splash goggles or face shield. Do not wear contact lenses while working with this material.

SKIN PROTECTION: Nitrile rubber gloves and apply a solvent-resistant barrier cream to areas of skin that may come in contact with this materials

OTHER PROTECTIVE EQUIPMENT: Eye wash station or fresh running water should be readily available. Wear coveralls and/or rubber apron and rubber shoes or boots.

PERSONAL HYGIENE: Wash hands thoroughly after handling and especially before eating or smoking. Shower at the end of the work shift. Wash contaminated clothing before reuse.

SECTION 9 – PHYSICAL DATA

BOILING POINT (F)	312°	SPECIFIC GRAVITY (H ₂ O=1)	1.2
VAPOR PRESSURE	10	PERCENT, VOLATILE BY VOLUME	18.0
VAPOR DENSITY (AIR=1)	<4.8	EVAPORATION RATE (N.B.A.=1)	0.2
SOLUBILITY IN WATER	Insoluble	pH (5% SLURRY)	Neutral

APPEARANCE & ODOR - Black liquid with aromatic solvent odor.

SECTION 10 – REACTIVITY DATA

STABILITY: Stable.

INCOMPATABILITY (MATERIALS TO AVOID): Water (moisture); alcohols; amines; strong acids and bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Possible HCN.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Contamination with water will evolve CO².

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY	Moderate
ACUTE INHALATION TOXICITY	Moderate
ACUTE DERMAL TOXICITY	Slight
SENSITIZATION	Possible
MUTAGENICTIY	Negative
CARCINOGENICITY	Not Classifiable

SECTION 12 ECOLOGICAL INFORMATION

BIODEGRADATION	Slow To Moderate
TOXICITY TO FISH	Minimal
TOXICITY TO AQUATIC INVERTEBRATES	Minimal
TOXICITY TO MICRO ORGANISMS	Minimal
ATMOSPHERIC OXIDATION OF VOLATILES	Degrades Rapidly
BIOACCUMULATION	Negative
TOXICITY TO PLANTS	Minimal

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of in accordance with existing federal, state, and local environmental laws.

SECTION 14 – TRANSPORT INFORMATION

PROPER SHIPPING NAME:	Paint
HAZARD CLASS:	3
PACKING GROUP:	III
ID #:	UN 1263
RQ:	None

TRANSPORT LABELS REQUIRED: Flammable liquid. (In the U.S., this material may be re-classified as a combustible liquid and is not regulated in containers less than 119 gallons via surface transportation.)

SECTION 15 – REGULATORY INFORMATION

See reference data for individual components



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SECTION 16 – OTHER INFORMATION (HMIS RATING)

Health	2
Flammability	2
Physical Hazard	1
Personal Protection	H

Disclaimer: Andek Corporation (Andek) believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the issue date of this Material Safety Data Sheet (MSDS). However, because the conditions of handling, use, and storage of these materials are beyond Andek's control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials and make no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations contained in this MSDS are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and data and to comply with all applicable international, federal, state, and local laws and regulations.



PROJECT REFERENCES

	PROJECT	LOCATION	ANDEK PRODUCT USED
	U.S. Naval Research Lab	Washington DC	Polaroof NW
	Reagan National Control Tower	Reagan National Airport, Washington, DC	Polaroof AC, Wearcoat 66
	Arch Street Presbyterian Church	Philadelphia, PA	Polaprime 21, Polaroof AC
	Trump Building Wall Street (Metal roof)	New York, NY	Polaprime 21, Polaroof AC
	PA DOT-Interstate 476	Pennsylvania	Polagard AG
	McDonnell Douglas (Boeing Aerospace)	New Jersey	Polaroof RAC



John F Kennedy Airport

New York, NY

Polaroof SP, Flashband



LaGuardia Airport

New York, NY

Polaroof SP, Flashband



Throgs Neck Bridge

New York, NY

Roofdx Super, Roofab



Los Angeles Int'l Airport

Los Angeles, CA

Polaroof RAC, Roofab, Polaroof SP



PSE&G Nuclear Power Station

Salem, NJ

Andek 950, Wearcoat 66



Philadelphia Park Horse Stables

Philadelphia, PA

Polaprime 21, Polaroof AC



U.S. Air Force Airlift Command

Dover AFB, DE

Polaroof AC



U.S. Navy (Military Sealift
Command)

Norfolk, VA

Polaroof SP



Walt Disney World

Orlando, FL

Roofdx Super, Polarroof RAC, Roofab, Polarroof AC, Polarroof NW, Clearcoat 44



The Moshulu

Philadelphia, PA

Polaprime 21, Roofab, Polarroof RAC



Interstate 78

Pennsylvania

Polagard AG



Veteran's Administration Hospitals

Delaware & Palo Alto, CA

Polarroof RAC, Polarroof SP



Jazzland Amusement Park

New Orleans, LA

Polagard AG



NASA Goddard Space Flight Center

Greenbelt, MD

Polarroof RAC, Roofab



National Institutes of Health

Bethesda, MD

Cocoon 560, Cocoon Vinyl Bond B



Harrah's Casino

Atlantic City, NJ

Polaroof AC, Roofdx Copper



General Electric

Burkeville, AL

Cocoon 560, Cocoon Vinyl Bond B



Baltimore/Washington Int'l Airport

BWI Airport, MD

Polaroof NW



U.S. Department of State

Overseas Embassies

Rubberkote 1047



Princeton University

Princeton, NJ

Polaroof AC, Polaroof NW,
Wearcoat 44, Roofab



U.S. Army Corps of Engineers

Hungry Horse, MT &
Johnson Atoll

Polajoint



Dupont Corp

Richmond, VA

Polafloor PUR, Wearcoat 44,
Polafloor Epoxy Topping



Lucy the Elephant

Margate, NJ

Polaroof AC, Polaprime 21



Maryland DOT

Chesapeake House
Service Center

Polaroof AC, AIM #3



Philadelphia City Hall

Philadelphia, PA

Roofdx Super



Pfizer Pharmaceutical

Philadelphia, PA

Polafloor PUR



Philadelphia Naval Shipyard

Philadelphia, PA

Polaroof AC, Polaroof NW,
Wearcoat 44, Roofab



University of Texas

Austin, TX

Clearcoat 44



Delaware DOT

Harrington, DE

Polaroof NW



The Ritz Carlton Resort & Golf
Club

Bradenton, FL

Andek Firegard



Pennsylvania State University
Wiley Lab

State Park, PA

Cocoon 560, Cocoon Vinyl Bond B



Hershey Park

Hershey, PA

Polafloor Colorcoat



National Italian Foundation HQ

Washington D.C.

Polagard Fibrelastic



Independence Blue Cross/Blue Shield HQ

Philadelphia, PA

Roofdx Super, Polafloor PUR



U.S. Navy - Military Sealift Command

Norfolk, VA

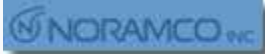
Polaroof SP

Picatinny

U.S. Army

Picatinny Arsenal, NJ

Polajoint Super



Noramco Pharmaceuticals

Wilmington, DE

Polaprime 21, Polaroof NW, Clearcoat 44



U.S. Coast Guard

Cape May, NJ

Polaroof SP, Polaroof RAC, Roofab



Bank of America

Baltimore, MD

Polaprime 21, Roofdx Super, Polaroof RAC, Roofab



Blue Cross/ Blue Shield

Columbia, SC

Polagard AG



Osiris Therapeutics

Columbia, MD

Cocoon 560, Cocoon Vinyl Bond B



Delaware "Smoke House" Fire
Training Facility

Polaprime 21, Wearcoat 44



Kentucky Horse Park-Central
Show Arena Facility

Lexington, KY

Polaprime 21, Polarof NW



Triborough Bridge & Tunnel
Authority

New York, NY

Roofdx Super, Roofab, Silver Film



Druid Hill Recreation Center

Baltimore, MD

Wearcoat 44