



Stars Management DMCC

SUBMITTAL

ENCAPSALL SUPER
(Industrial Protective Coating)

ENCAPSALL SUPER™

Industrial Protective Coating



DESCRIPTION

ENCAPSALL SUPER is a very tough, protective, urethane coating that is especially designed for industrial applications, including secondary containment areas, pipelines, valves and transfer pits. Fortified with iron oxide, ENCAPSALL SUPER cures to a rubber-like, waterproof, seamless membrane that possesses exceptional strength and elasticity.

OUTSTANDING FEATURES

- Can be used over metal, concrete, masonry, brick, rubber, asphalt, wood, tile and other surfaces
- Produces a fully adhered, seamless, high density, waterproofing membrane
- Resistant to attack from most industrial chemicals, gasoline, acids, alkalis, and detergents
- Protects substrate against rust, corrosion and fungal attack
- Will not deteriorate from exposure to UV radiation, bacteria or other environmental conditions
- Easy to apply directly out of the container by brush, roller or airless spray
- Remains flexible, tough and weatherproof at low temperatures
- Highly penetrative and workable

- Rapidly develops high tensile strength and elongation

APPLICATION

All surfaces to be treated must be clean, dry and free of loose debris, oils, grease and any 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 of product. Porous surfaces and certain bituminous surfaces require a priming coat. Contact our Technical Department for details and primer recommendations.

ENCAPSALL SUPER may be applied straight from the pail using brush, roller, or spray technique after 2

minutes of slow power stirring. ENCAPSALL SUPER is applied in 2 coats at a thickness of 16 wet mils per coat. Tools may be cleaned after use in any aromatic solvent.

PRECAUTIONS

Contains solvent and reactive isocyanate groups. It is recommended that proper safety equipment such as rubber gloves and chemical splash goggles be worn when handling this product. Inhalation should be avoided. Persons with known respiratory allergies should avoid exposure to this product. Avoid contact with skin and eyes. In case of contact, flush with large amounts of water for 15 minutes. Do not ingest. If inhaled, swallowed, or in case of eye contact, get immediate medical attention.

SPECIFICATIONS	
Coating Type	Moisture-cure micaceous iron oxide modified urethane
VOC	200 grams/liter
Pot Life	Single component
Shelf Life	24 months
Recommended Thickness	30 mils dry film thickness
Coverage	50 square feet per gallon
Packaging	1 gallon, 5 gallons, and 55 gallons
Color	Black

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LIMITATIONS

Black surfaces tend to absorb heat which is transmitted through the structure. To prevent heat buildup, Andek recommends an application of Silver Film over the ENCAPSALL SUPER. Keep ENCAPSALL SUPER pails away from direct sunlight.

This product is a moisture-curing urethane and is packaged in specially sealed and air excluded drums. If damaged, air and moisture vapor may enter and cause premature curing. Care should be taken to avoid creating part full containers.

MAINTENANCE

Damaged ENCAPSALL SUPER may be recoated after thorough cleaning and light sanding.

Keep out of reach of children and pets.

For additional information, contact the Andek Technical Department.

TECHNICAL DATA		
Moisture Vapor Transmission	8.4 gms/M2/24 hrs (0.715 perms)	ASTM E-96
Tensile - 24 hour cure	256 lbs/square inch	ASTM D-412
Tensile - simulated aging	585 lbs/square inch	ASTM D-412
Elongation - 24 hour cure	400%	ASTM D-412
Elongation - simulated aging	340%	ASTM D-412
Flexibility at Low Temperatures	180° bend @ 20°F	ASTM C-711
Flashpoint	105°F	FTMS 141A(M4293)
Solids Content	90% (B.W.); 93% (B.V.)	ASTM D-1044
Shore 'A' - 24 hour cure	48	ASTM D-2240
Shore 'A' - simulated aging	55	ASTM D-2240
Impact Resistance	4m indentation, no cracking or loss of adhesion	BS3900 Part 3
Weatherometer	No significant effect after 3000 hours	
Cure Time	24 hours @ 70°F (70% R.H.)	

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Effective Date: 011/2010

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

ENCAPSALL SUPER

SECTION 1 - IDENTIFIERS

MANUFACTURER: Andek Corporation
TRADE NAME: Encapsall Super
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

PRECAUTIONS TO BE TAKEN IN HANDLING:

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
MUTAGENICTY	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.)

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ENCAPSALL SUPER

SECTION 15 – REGULATORY INFORMATION

See reference data for individual components







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, Polarof RAC, Roofab, Polarof AC, Polarof NW, Clearcoat 44



The Moshulu

Philadelphia, PA

Polaprime 21, Roofab, Polarof RAC



Interstate 78

Pennsylvania

Polagard AG



Veteran's Administration Hospitals

Delaware & Palo Alto, CA

Polarof RAC, Polarof SP



Jazzland Amusement Park

New Orleans, LA

Polagard AG



NASA Goddard Space Flight Center

Greenbelt, MD

Polarof 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

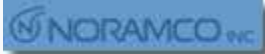
Polaroof SP

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