Stars Management DMCC

SUBMITTAL

POLAFLOOR PUR BRUSHABLE

(Highly Chemical Resistant Coating)

TM

POLAFLOOR PUR BRUSHABLE



Highly Chemical Resistant Coating

DESCRIPTION

POLAFLOOR P.U.R. BRUSHABLE combines the properties of silicon carbide, Kevlar* and urethane chemistry to produce a high-performance engineered coating. An ultra-high performance three-part urethane floor coating, it is designed for the most severe interior and exterior service. POLAFLOOR P.U.R. BRUSHABLE has exceptional resistance to most industrial chemicals and provides a tough, wear-resistant surface that resists both impact and abrasion.

OUTSTANDING FEATURES

☐ Highly impermeable to fluids
 ☐ Resists the leaching of chemicals through the coating .
 ☐ Easy to clean yet provides traction enhancement
 ☐ Suitable for industrial floors, tanks, pits, gullies and secondary containment areas
 ☐ Stands up to vehicular traffic and diverse industrial activities
 ☐ Produces a hard, lightly textured surface

APPLICATION

All surfaces to be coated must be clean, dry and completely free of loose particles, grease, oils, or any substance that would interfere with proper bond. All preparation work including substrate repairs and expansion joints must be

completed prior to application. If PUR BRUSHABLE is to be applied over a waterproofing membrane, the membrane should be thoroughly inspected to insure that it has completely set and is devoid of pinholes or interruptions. Add the Part A to the Part B while stirring thoroughly with a drill-type stirrer. Mixing must be continued for 3 minutes total. The mix should then be poured back and forth between the 2 component cans twice, then stirred a further minute. The Part C should be stirred into the mixture immediately and stirred for 2 minutes until a uniform paste consistency is achieved. Careful attention to detail will help to produce the desired result in appearance and performance. Once mixed, PUR BRUSHABLE has approximately 40 minutes working time at 70°F and will have developed an initial cure

suitable for foot traffic within 24 hours. The floor may be placed into full service within 48 hours. Equipment may be cleaned with toluene, xylene, or aromatic naptha before the PUR BRUSHABLE has hardened.

LIMITATIONS

Do not apply to frozen or damp surfaces. Do not apply if the application cannot be protected from precipitation for at least 4 hours. Full chemical resistance properties are not achieved until 5 days after application. Foot traffic may not resume until 24 hours after application. Only skilled coating applicators should use this product.

MAINTENANCE

If an area of PUR Brushable becomes damaged, it should be mechanically removed down to the

SPECIFICATIONS	
Sealer Type	Kevlar* Modified Urethane
voc	Zero
Pot Life	40 minutes @ 70°F
Shelf Life	24 months
Recommended Thickness	20 mils dry film thickness
Coverage	50 square feet/unit
Packaging	20 pound unit
Color	Black

^{*} Dupont's Registered Trademark

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substrate. The edges surrounding the patch should be sanded and primed with Polaprime 21 and new PUR BRUSHABLE may be applied.

PRECAUTIONS

Before using, read M.S.D.S. thoroughly. During handling of this product, use splash goggles, rubber

gloves and full coveralls. During mixing, particle/dust masks should be worn. Do not ingest. In case of ingestion, do NOT induce vomiting and seek immediate medical attention. Avoid contact with skin and eyes; in case of contact, flush with clear water for 15 minutes. For contact with eyes, seek immediate

medical attention in addition to flushing.

Keep out of reach of children and pets.

For more information, call our Technical Department.

TECHNICAL DATA			
Solids Content	100% (B.W.); 100% (B.V.)	ASTM D-1044	
Compressive Strength	12,060 psi	ASTM C-109	
Tensile Strength	2,685 psi	ASTM C-109	
Linear Heat Expansion	2.6 - 10 K	ITR (DIN)	
Heat Conductivity	0.97 W/K.M	ITR (DIN)	
Grinding Wear	10.3 cm3	ITR (DIN)	
Water Vapor Transmission	0.75 gms/M2/hr (=0.05 perms)	ASTM E-96	
Chemical Resistance	See Polafloor PUR Report #1	See Polafloor PUR Report #1	
VOC Content	Zero	ASTM D-1044	

NOTICE: The information presented herein is based on tests and data that Andek Corporation believes to be reliable. It is intended for use by technically qualified personnel at their own discretion and risk. Since conditions of handling and use are beyond our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. Nothing herein is to be construed as a license to operate or a recommendation to infringe any patent.

Effective Date: 09/2010

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MATERIAL SAFETY DATA SHEET

U.S. Department of Labor Occupational Safety & Health Administration

POLAFLOOR P.U.R. BRUSHABLE - PART A

SECTION 1 – IDENTIFIERS

MANUFACTURER: Andek Corporation

TRADE NAME: Polafloor P.U.R. Brushable - Part A CHEMICAL FAMILY: Diphenylmethane Isocyanate

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. Causes skin and eye irritation and/or burns. May cause allergic skin reaction or skin sensitization. May cause respiratory tract irritation, allergic reaction, or sensitization. Causes severe gastrointestinal damage if swallowed.

Effects of Overexposure:

SKIN: Prolonged or repeated contact may cause skin irritation and/or result in skin sensitization or other allergic response.

EYES: Irritation and redness from direct eye contact.

BREATHING: Breathing vapor may result in irritation to the respiratory tract. SWALLOWING: Low acute oral toxicity (LD 50 > 2,000 Mg/Kg for rats).

SECTION 3 - COMPOSITION

COMPONENT CAS # APPROX % TLV

Diphenylmethane Isocyanate 101-68-8 100.0

SECTION 4 – FIRST AID MEASURES

SKIN: Wash thoroughly with soap and water. Launder clothing before reuse.

EYES: Flush with clear water for 15 minutes and seek immediate medical attention.

BREATHING: Move victim to fresh air if effects occur. Consult medical personnel.

SWALLOWING: Induce vomiting if large amounts ingested. Low toxicity, no specific antidote.

SECTION 5 - FIRE & EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): 475°F (Pensky Martens Closed Cup).

FLAMMABLE LIMITS: N/A

EXTINGUISHING MEDIA: Foam; CO2; Dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES: None

UNUSUAL FIRE & EXPLOSION HAZARDS: None

DECOMPOSITION PRODUCTS: Thermal decomposition yields oxides of carbon and nitrogen.

SECTION 6 – SPILL OR LEAK PROCEDURES

Contain spill with absorbent material. If necessary, soak contaminated area with 5% acetic acid and wash with water.

SECTION 7 - HANDLING & STORAGE

Store in a dry area away from heat. Keep container sealed until ready for use.

SECTION 8 – PERSONAL PROTECTION/EXPOSURE CONTROLS

RESPIRATORY PROTECTION (SPECIFY TYPE): During mixing, a NIOSH approved dust mask should be work; otherwise unnecessary.

EYE PROTECTION: Safety glasses with side shields.

SKIN PROTECTION: Rubber or polyethylene gloves.

OTHER PROTECTIVE EQUIPMENT: Adequate clothing to prevent direct contact with skin.

PERSONAL HYGIENE: Wash thoroughly after work shift. Launder clothing before reuse.

SECTION 9 - PHYSICAL DATA

1.1 **BOILING POINT (F)** PECIFIC GRAVITY (H2O=1) Decomposes 0 VAPOR PRESSURE None PERCENT. VOLATILE BY VOLUME 0 VAPOR DENSITY (AIR=1) None EVAPORATION RATE (N.B.A.=1) 7.5 рΗ SOLUBILITY IN WATER Insoluble

APPEARANCE & ODOR - Heavy off-white paste when mixed, with slight ammoniacal odor.

SECTION 10 - REACTIVITY DATA

STABILITY: Stable.

INCOMPATABILITY (MATERIALS TO AVOID): Avoid strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS: None under normal conditions.

HAZARDOUS POLYMERIZATION: May occur.

CONDITIONS TO AVOID: Excess heating over a large period of time. When large quantities are mixed, high exotherm yields considerable

heat build up.

SECTION 11 – TOXICOLOGICAL INFORMATION

KNOWN CARCINOGENS OR MUTAGENS - TYPE & DEFINITION – None known

SECTION 12 – ECOLOGICAL INFORMATION

Based on information for MDI and polymeric MDI, material is practically non-toxic to aquatic organisms on an acute basis (LC50 greater than 100 mg/L in most sensitive species). Material reacts with water, forming insoluble polyurea which is stable.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state and federal regulations in approved metal container.

SECTION 14 – TRANSPORT INFORMATION

PROPER SHIPPING NAME: Paint HAZARD CLASS: None PACKING GROUP: N/A ID#: N/A RQ: N/A

TRANSPORT LABELS REQUIRED: This material is not regulated by the D.O.T.

SECTION 15 - REGULATORY INFORMATION

See reference data for individual components.

SECTION 16 – OTHER INFORMATION (HMIS RATING)

Health 2 Flammability 1 Physical Hazard 1 Personal Protection H

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MATERIAL SAFETY DATA SHEET

U.S. Department of Labor Occupational Safety & Health Administration

POLAFLOOR P.U.R. BRUSHABLE – PART B

SECTION 1 - IDENTIFIERS

MANUFACTURER: Andek Corporation

TRADE NAME: Polafloor P.U.R. Brushable Part B

CHEMICAL FAMILY: Latent Oxazolidine Polycarbonate Gel Paste

SECTION 2 – HAZARD IDENTIFICATION & EMERGENCY OVERVIEW

Emergency Overview: Toxic gases, fumes may be emitted during burning or thermal decomposition.

Effects of Overexposure:

SKIN: Prolonged or repeated contact may cause skin irritation.

EYES: Irritation and redness from direct eye contact.

BREATHING: Breathing vapor may result in irritation to the respiratory tract in high concentrations or at high temperatures.

SWALLOWING: Highly damaging to the digestive tissue lining. Harmful or fatal if swallowed.

SECTION 3 - COMPOSITION

COMPONENT	CAS #	APPROX %	TLV
Polycarbonate Bisoxazoline	59719-67-4	52%	
Aromatic Sulfonic Ester	70775-94-9	44%	
Polyphenylenediamine Terephthalamide	26125-61-1	4%	

SECTION 4 – FIRST AID MEASURES

SKIN: Wash thoroughly with soap and water. Launder clothing before reuse. Get medical attention if irritation develops.

EYES: Flush with clear water for 15 minutes and seek immediate medical attention.

BREATHING: Consult medical personnel if difficulty in breathing occurs; get oxygen.

SWALLOWING: Do NOT induce vomiting. Get medical attention. Wash mouth with water.

SECTION 5 - FIRE & EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): 515°F (Pensky Martens Closed Cup).

FLAMMABLE LIMITS: N/A

EXTINGUISHING MEDIA: Foam; CO2; dry chemical.

SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus and appropriate protective clothing should be worn in a

fire or thermal degradation event.

UNUSUAL FIRE & EXPLOSION HAZARDS: None

DECOMPOSITION PRODUCTS: Thermal decomposition yields oxides of carbon and nitrogen.

SECTION 6 – SPILL OR LEAK PROCEDURES

Contain spill with absorbent material. Collect and place in a recovery container and dispose of mixture according to governing regulations.

SECTION 7 - HANDLING & STORAGE

Store in a dry area away from heat. Keep container sealed until ready for use. Do not allow to freeze.

SECTION 8 – PERSONAL PROTECTION/EXPOSURE CONTROLS

RESPIRATORY PROTECTION (SPECIFY TYPE): During mixing, a NIOSH certified dust mask should be worn; otherwise unnecessary. EYE PROTECTION: Safety glasses with side shields. Contact lenses should not be worn while using this product.

SKIN PROTECTION: Rubber or polyethylene gloves.

OTHER PROTECTIVE EQUIPMENT: Adequate clothing to prevent direct contact with skin. Eye wash station or fresh, clean water.

PERSONAL HYGIENE: Wash thoroughly after work shift. Launder clothing before reuse.

SECTION 9 - PHYSICAL DATA

0.9 **BOILING POINT (F)** SPECIFIC GRAVITY (H2O=1) Decomposes 3.1 VAPOR PRESSURE None PERCENT. VOLATILE BY VOLUME 0 VAPOR DENSITY (AIR=1) None EVAPORATION RATE (N.B.A.=1) 7.5 SOLUBILITY IN WATER Soluble pН

APPEARANCE & ODOR - Heavy off-white paste when mixed, slight detergent odor.

SECTION 10 – REACTIVITY DATA

STABILITY: Stable.

INCOMPATABILITY (MATERIALS TO AVOID): Do not add hydrocarbon solvents. HAZARDOUS DECOMPOSITION PRODUCTS: None under normal conditions.

HAZARDOUS POLYMERIZATION: May occur.

CONDITIONS TO AVOID: Excess heating over a large period of time. When large quantities are mixed, high exotherm yields considerable heat build up.

SECTION 11 - TOXICOLOGICAL INFORMATION

KNOWN CARCINOGENS OR MUTAGENS - TYPE & DEFINITION - None known

SECTION 12 – ECOLOGICAL INFORMATION

This material, if not activated with Polafloor PUR Brushable Part A, may be toxic to aquatic organisms and should be kept out of sewage and drainage systems and all bodies of water.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state and federal environmental regulations in approved metal container.

<u>SECTION 14 – TRANSPORT INFORMA</u>TION

PROPER SHIPPING NAME: Paint HAZARD CLASS: None PACKING GROUP: N/A ID#: N/A RQ: N/A

TRANSPORT LABELS REQUIRED: This material is not regulated by the D.O.T.

SECTION 15 – REGULATORY INFORMATION

See reference data for individual components.

SECTION 16 – OTHER INFORMATION (HMIS RATING)

Health 1 Flammability 1 Physical Hazard 0 Personal Protection H

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MATERIAL SAFETY DATA SHEET

U.S. Department of Labor Occupational Safety & Health Administration

POLAFLOOR P.U.R. BRUSHABLE – PART C

SECTION 1 - IDENTIFIERS

MANUFACTURER: Andek Corporation

TRADE NAME: Polafloor P.U.R. Brushable Part C CHEMICAL FAMILY: Calcium Oxide/Silicon Oxide Blend

SECTION 2 – HAZARD IDENTIFICATION & EMERGENCY OVERVIEW

Emergency Overview: No significant hazard other than exposure to dust by inhalation during handling.

Effects of Overexposure:

SKIN: May irritate.

EYES: May irritate.

BREATHING: May irritate.

SWALLOWING: May irritate.

SECTION 3 - COMPOSITION

COMPONENT	CAS #	<u>APPROX %</u>	<u>TLV</u>

 $\overline{\text{Silica}}$ $\overline{\text{7631-86-9}}$ 0.4 0.1 mg/M (respirable dust)

Calcium Oxide 65997-15-1 18.7 Iron Oxide 51274-00-1 80.9

SECTION 4 – FIRST AID MEASURES

SKIN: Wash with clean water.

EYES: Flush with clean water; if irritation persists, seek medical attention.

BREATHING: Remove person immediately to fresh air, give artificial respiration if needed; seek medical attention as needed.

SWALLOWING: Do NOT induce vomiting. Seek medical attention immediately.

SECTION 5 – FIRE & EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): Non-flammable.

FLAMMABLE LIMITS: N/A

EXTINGUISHING MEDIA: None required; sand may be used as an extinguishing media.

SPECIAL FIRE FIGHTING PROCEDURES: N/A

UNUSUAL FIRE & EXPLOSION HAZARDS: Is neither a fire nor an explosion hazard.

SECTION 6 – SPILL OR LEAK PROCEDURES

Clean with vacuum and place in closable container for disposal, or flush with water.

SECTION 7 – HANDLING & STORAGE

Avoid spills of bulk material.

SECTION 8 – PERSONAL PROTECTION/EXPOSURE CONTROLS

RESPIRATORY PROTECTION (SPECIFY TYPE): Any dust respirator.

EYE PROTECTION: Goggles. SKIN PROTECTION: Gloves.

OTHER PROTECTIVE EQUIPMENT: Adequate clothing to prevent direct contact with skin. Eye wash station or fresh, clean water.

PERSONAL HYGIENE: Avoid creating and breathing dust.

SECTION 9 - PHYSICAL DATA

2.65 **BOILING POINT (F)** 4046° F SPECIFIC GRAVITY (H2O=1) N/A VAPOR PRESSURE PERCENT. VOLATILE BY VOLUME None N/A VAPOR DENSITY (AIR=1) N/A EVAPORATION RATE (N.B.A.=1) Neutral SOLUBILITY IN WATER Insoluble pН

APPEARANCE & ODOR - Black Sparkling Powder - no odor or taste

SECTION 10 - REACTIVITY DATA

STABILITY: Stable.

INCOMPATABILITY (MATERIALS TO AVOID): Contact with powerful oxidizing agents such as fluorine, chlorine trifluoride, etc. may cause fires.

HAZARDOUS DECOMPOSITION PRODUCTS: Silica will dissolve in hydrofluoric acid and produce a corrosive gas - silicone tetrafluoride.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: None

SECTION 11 - TOXICOLOGICAL INFORMATION

KNOWN CARCINOGENS OR MUTAGENS - TYPE & DEFINITION

The National Toxicology Program (NTP) published its Sixth Annual Report on Carcinogens which concludes that "silica, crystalline (respirable)" may reasonably be anticipated to be a carcinogen. The NTP conclusion is based on sufficient evidence for the carcinogenicity of respirable crystalline silica in experimental animals and limited evidence in humans.

SECTION 12 – ECOLOGICAL INFORMATION

This material is not expected to biodegrade when released into the soil. This material is not expected to significantly bioaccumulate.

SECTION 13 – DISPOSAL CONSIDERATIONS

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

SECTION 14 – TRANSPORT INFORMATION

Proper Shipping Name: Waterproofing

This material is not regulated by the D.O.T.

SECTION 15 – REGULATORY INFORMATION

See reference data for individual components.

SECTION 16 - OTHER INFORMATION (HMIS RATING)

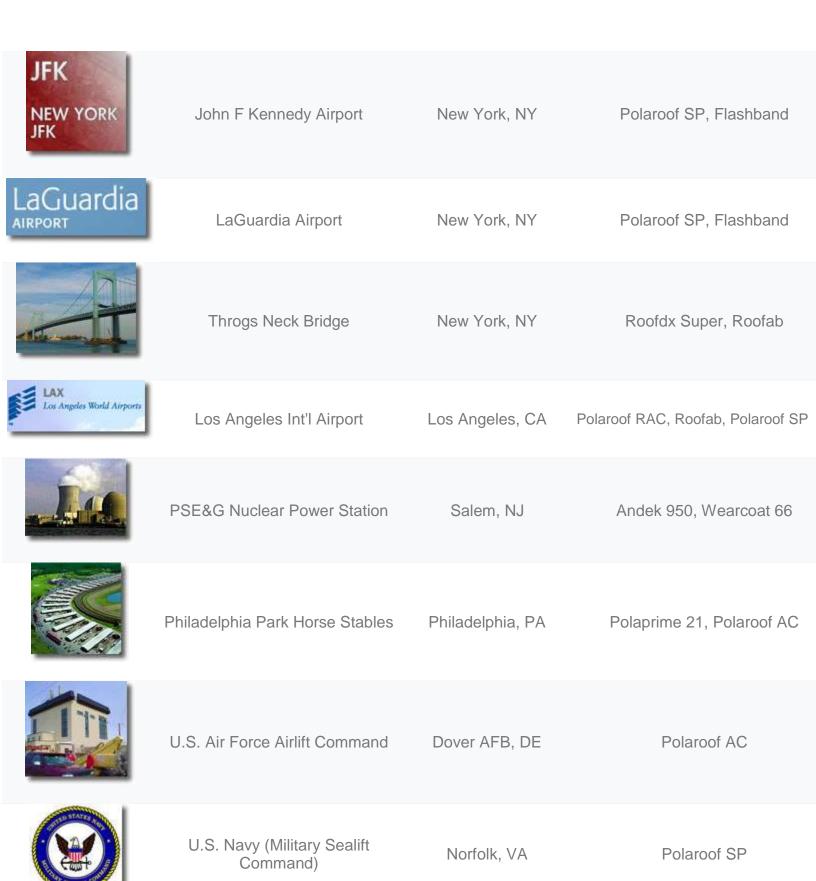
Health1Flammability0Physical Hazard0Personal ProtectionE

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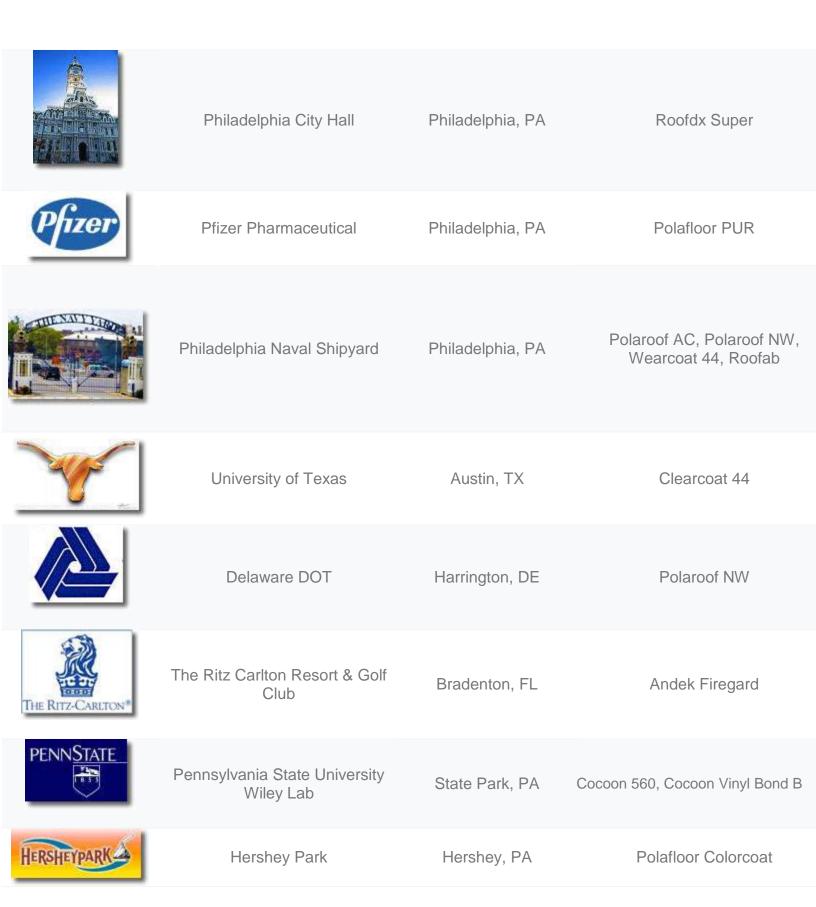
PROJECT REFERENCES

	PROJECT	LOCATION	ANDEK PRODUCT USED
# H	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
INTERSTATE PENNSYLVANIA 476	PA DOT-Interstate 476	Pennsylvania	Polagard AG
BOEING	McDonnell Douglas (Boeing Aerospace)	New Jersey	Polaroof RAC



	Walt Disney World	Orlando, FL	Roofdx Super, Polaroof RAC, Roofab, Polaroof AC, Polaroof NW, Clearcoat 44
	The Moshulu	Philadelphia, PA	Polaprime 21, Roofab, Polaroof RAC
78	Interstate 78	Pennsylvania	Polagard AG
Department of Veteranic Affairs	Veteran's Administration Hospitals	Delaware & Palo Alto, CA	Polaroof RAC, Polaroof SP
	Jazzland Amusement Park	New Orleans, LA	Polagard AG
NASA	NASA Goddard Space Flight Center	Greenbelt, MD	Polaroof RAC, Roofab
OKHEALTH OF HEALTH	National Institutes of Health	Bethesda, MD	Cocoon 560, Cocoon Vinyl Bond B
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	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 ™	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
14	Blue Cross/ Blue Shield	Columbia, SC	Polagard AG

