1618 Clear™ Epoxy Coating | TOP COAT ENCAPSULANT & SEALER

POLYGEM
polygem.com

Manufactured by Polygem | 5600 Lower Macungie Rd. | Macungie, PA 18062 | 630-231-5600 | Made in USA

FLOORING - INDUSTRIAL - THEMING - SIGNAGE - CRAFTS & HOBBY WORK - MORE

ZOO POXY™ theming epoxy

TB - TECHNICAL BULLETIN

PRODUCT DESCRIPTION

1618 Clear™ Epoxy Coating is a low viscosity, easy to mix, two-component epoxy sealer and top coat with a 2A to 1B by volume mix ratio. It's low viscosity formula allows for easy to spread thin-coat applications. **1618 Clear** is resistant to most chemicals and solvents. It is non-blushing and works well even in cool or humid conditions. **1618 Clear** has many uses and is the goto material within many industries.

WORKING FEATURES & BENEFITS

- ***No VOCs***
- ***No Solvents***
- ***Low Viscosity***
- ***Cures in Cool & Humid Condtions***
- ***Impact Resistant***
- ***Chemical & Corrosion Resistant.***

INDUSTRIAL APPLICATIONS

CONCRETE SEALER:
Apply directly to prepared concrete floors (warehouses, workshops, utility rooms, basements) for a clear, glossy seal that stops dusting, improves cleanability, and offers chemical resistance. Provides a clear, durable, chemical-resistant finish for concrete workbenches and tables.

SECONDARY CONTAINMENT TOPCOAT:
Use as a clear topcoat over a compatible colored base coat in containment areas, providing chemical resistance.

METAL PROTECTIVE COATING:
Apply over metal to provide a clear, protective layer against mild corrosion and chemicals.

THEMING & SIGNAGE APPLICATIONS

CLEAR COAT FOR CARVED FOAM/PROPS:
Excellent for applying over painted or textured foam props. Provides a durable, high-gloss protective shell without changing the color, enhances the underlying paint job.

PROTECTIVE TOPCOAT FOR PAINTED SIGNS/MURALS:
Ideal for applying a clear, protective layer over painted graphics, signs, or murals.

SEALING NATURAL & FAUX EXHIBIT MATERIALS:
Perfect for applying a clear coat to wood, faux rockwork, concrete elements, etc., in exhibits.

THIN ENCAPSULATION:
Encapsulating properly sealed labels, graphics, or documents onto flat surfaces. The clarity ensures perfect visibility.

CRAFT AND HOBBY WORK

MORE INFO

CLEAR COAT SEALING CRAFT PROJECTS:
Can be used to seal decoupage, polymer clay or other craft materials for a durable clear finish.

PACKAGING

1618 Clear is available in a **3 Gallon Kit**.

SHELF LIFE

Factory sealed containers are guaranteed to be of first quality for a minimum of 24 months.

LIMITATIONS

DO NOT use on contaminated or oily surfaces.

DO NOT install when surface temperature is below 32°F (7°C) or above 85°F (32°C).

During damp and/or cool conditions epoxy will cure slower protect finished work from any contact until fully cured.

CAUTIONS

- Wear chemical goggles and NIOSH approved respirator. Wear proper protective clothing and gloves to prevent direct contact of resins. Consult the Safety Data Sheet for full listing protective requirements.
- **1618 Clear** may irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin.
- Keep out of reach of children.

TECHNICAL SPECIFICATIONS

TYPICAL PROPERTIES | All values measured after 7 days at 73°F (23°C).

Mix Ratio: 2A:1B by volume | **Pot Life:** 28 min.* (100 gms)

Mixed Color: Clear (A:Clear - Part B: Clear-Light Amber) | **Mixed Viscosity:** 2,000 cps. (Part A: 3,000 cps. - Part B: 375 cps)

Thin Film Working Time: 2 Hrs.* | **Cure Time:** 48 Hrs* @ .125" (3.17 mm)

Shore Hardness: 60D | **Shelf Life:** 24 Mos.**

Compressive Strength: 11,100 psi ASTM D695

Compressive Modulus: 289,000 psi ASTM D695

Tensile Strength: 9,100 psi ASTM D638

Elongation @ Break: 4.7% ASTM D638

Specific Volume: Mixed - 24.85 cu.in/lb ASTM D792

*When mixed or cured at 73°F (23°C)

** From date of manufacture when stored at 73°F (23°C) in unopened containers.

POLYGEM LIMITED WARRANTY:

Polygem warrants that during the shelf life of the product (as determined from the date of manufacture), the product will conform to the specifications provided in this technical bulletin **POLYGEM MAKES NO OTHER WARRANTIES, EXPRESSED, IMPLIED, OR STATUTORY, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.** Neither any performance or other conduct, or any oral or written representation, statement or advice provided by polygem or any of Polygem's distributors, agents, or employees will create a warranty, or in any way increase the scope or duration of this limited warranty. Polygem will have no warranty obligation if the product becomes defective, in whole or in part, as a result of: (i) the transportation of the product; (ii) any alteration or modification to the product by third parties; or (iii) improper handling or storage of the product (including improper handling or storage by third-party carriers or distributors).

1618 Clear™ Epoxy Coating | TOP COAT ENCAPSULANT & SEALER

FLOORING - INDUSTRIAL - THEMING - SIGNAGE - CRAFTS & HOBBY WORK - MORE

PROJECT PREPARATION

BEST PRACTICE: CONDUCT A SMALL-SCALE TEST.
Before mixing substantial amounts of epoxy, always conduct a small-scale test to ensure the planned material & process yields desired results.

1. **Plan Your Project & Rate of Coverage-**
   Recommended minimum thickness is .125 in (3.17 mm).
2. **Prepare Your Substrate/Surface -**
   If applying to smooth surfaces such as wood, plastics, epoxy putties, etc., surface may be roughened with sandpaper (120 grit) to aid adhesion. Clean surface to ensure it is free of dust, oils, contaminants , etc.

   For Metal Substrates– Abrade the surface to a white metal finish, then wipe down and clean it thoroughly.
3. **Measure & Mix -** After pre-mixing Parts A and B, dispense 2 parts A to 1 part B by volume. Combine and mix material thoroughly being sure to scrape the sides and bottom of the mixing container.

   MATERIAL IS MASS SENSITIVE.
   MORE MASS = LESS TIME TO WORK.

APPLICATION

How the product is applied will depend heavily on how you are using it and the substrate it is being applied to. Please refer to the general guidelines below. Material must be thoroughly mixed before proceeding to application.

CONCRETE DUST PROOFER & SEALER
Floors, Basements, Utility Rooms:

Pour the mixed epoxy directly onto the prepared concrete surface. Use a squeegee or roller to spread the epoxy evenly over the entire floor. Apply a thin, consistent coat.

Allow to cure completely before use, protecting it from contact until fully hardened.

CONCRETE WORK SURFACE SEALER Workbenches, Tables:

Pour the mixed epoxy onto the prepared concrete surface. Use a spreader, brush, or roller to apply a thin, even coat over the entire surface. Ensure all areas are covered for a durable, chemical-resistant finish.

Allow to cure completely before placing items on the surface.

SECONDARY CONTAINMENT TOPCOAT Over Existing Base Coat:

Ensure the underlying colored base coat is compatible and fully cured. Pour the mixed 1618 Clear epoxy onto the base coat. Use a squeegee or roller to spread a thin, even layer over the entire containment area.

Allow the topcoat to cure completely for the best chemical resistance.

UNIT SIZE & COVERAGE RATE @ 1/8 in. (3.17mm)

3 Gallons 26 lb (11.79 kg) **80 square ft.** (7.43 m^2)

METAL PROTECTIVE COATING:
Apply the mixed epoxy to the prepared metal surface using a brush or roller. Ensure a thin, uniform coat covers the entire metal surface for protection against mild corrosion and chemicals. Allow to cure completely.

STRENGTHENING COAT FOR CARVED FOAM/PROPS:
Apply the mixed epoxy over the painted or textured foam prop using a brush or by pouring and spreading. Work carefully to achieve a smooth, even coating that enhances the underlying paint without changing its color. Allow to fully cure for a durable, high-gloss protective shell.
NOTE: A UV-resistant 2K clear coat is required.

PROTECTIVE COAT FOR PAINTED SIGNS/MURALS:
Gently apply the mixed epoxy over the painted sign or mural using a brush or roller. Ensure a thin, even coat for clear protection of the artwork. Allow to cure completely.
NOTE: A UV-resistant 2K clear coat is required.

SEALING NATURAL & FAUX EXHIBIT MATERIALS
Wood, Faux Rockwork, Concrete:
Apply the mixed epoxy to the surface using a brush or roller. For porous materials like wood, ensure good penetration. Apply a thin, even coat to seal and protect the exhibit material. Allow to cure completely.
NOTE: A UV-resistant 2K clear coat is required.

THIN ENCAPSULATION Labels, Graphics, Documents:
Paper items must be sealed before encapsulation to avoid color bleed or change. Once sealed, place the label, graphic, or document on the flat surface. Carefully pour and spread the mixed epoxy over the item to encapsulate it. A small brush or spreader can be helpful. Ensure a thin, clear layer covers the item without obscuring visibility. Allow to cure completely.
NOTE: A UV-resistant 2K clear coat is required.

CRAFT AND HOBBY WORK Decoupage, Polymer Clay:
Apply the mixed epoxy to the craft material using a brush or by carefully pouring and spreading. Ensure a thin, even coat for a durable, clear finish. Allow to cure fully.
NOTE: A UV-resistant 2K clear coat is required.

SEALING – For UV resistance, outdoor, or post-finish applications, **1618 Clear must be sealed** with a commercially available, UV-resistant 2K clear coat. Apply in accordance with the clear coat manufacturer's instructions to ensure long-term performance and environmental resistance.

IMPORTANT: Sealing is optional for components intended for aquatic environments. However, if a component has been painted, sealing is **mandatory**. The recommended sealer is Polygem **1618 Clear**.

POLYGEM