

TD.462 – TECHNICAL DATA: E100-PT1™ Clear Epoxy

Revised: 4/26/2023 Version: 1.7

Product Class: A thin or high build clear epoxy coating and mortar binder for commercial and industrial applications.

Description: E100-PT1™ Clear Epoxy is 100% solids, low viscosity, water-clear, non-shrink, two-component epoxy designed for a wide variety of applications. E100-PT1™ Clear Epoxy will not blush or water spot and has excellent physical and chemical resistant properties. E100-PT1™ Clear Epoxy is available in standard and fast set formulas.

Typical Uses:

- Sealing and protecting interior concrete floors
- Primer for epoxy mortars
- Clear protective top coat for epoxy applications
- As a clear protective coating for interior flooring, polymer modified concrete overlays, and industrial floors
- As a thin textured “orange peel” finish for industrial floors
- Crack repair, joint repair, or surface repair mixes
- **REFLECTOR™ Enhancer Flooring Systems:** As base coat where a vapor barrier epoxy is not required, as the pigment/color coat and as a clear top coat.
- **HERMETIC™ Neat Floor:** As base coat where a vapor barrier epoxy is not required, pigmented coat using special powdered pigment and as a clear top coat.
- **HERMETIC™ Flake Floor:** As base coat where a vapor barrier epoxy is not required, pigmented coat using special powdered pigment and as a clear top coat.
- **HERMETIC™ Color Quartz Floor:** As base coat where a vapor barrier epoxy is not required, pigmented coat using special powdered pigment and as a clear top coat.
- **HERMETIC™ Stout Floor:** As base coat where a vapor barrier epoxy is not required, pigmented coat using special powdered pigment and as a clear top coat.
- **HERMETIC™ Paramount Floor:** As base coat where a vapor barrier epoxy is not required, pigmented coat using special powdered pigment, slurry binder and as a clear top coat.
- **HERMETIC™ Paramount Heavy Duty:** As base coat where a vapor barrier epoxy is not required, pigmented coat using special powdered pigment, trowel mix binder and as a clear top coat.

Key Features:

- High-gloss, non-blush film
- Near zero odor
- 100% solids (0% VOC)
- Non-shrink coating
- Self-leveling and air releasing
- Low viscosity
- Antimicrobial
- Easily pigmented in the field
- Fast cure rate
- Excellent strength properties
- Excellent impact resistance
- Easy to place
- Unsurpassed adhesion properties
- USDA, CFIA, and FDA compliant
- 2 to 1 ratio by volume

Product Properties: Material and curing conditions at 73° F / 23° C unless noted, 50% R.H.

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| <ul style="list-style-type: none"> • Color: Clear • Viscosity @ 73° F / 23° C <ul style="list-style-type: none"> ○ Part A: 500 cps ○ Part B: 120 cps ○ Mixed: 300 cps • Pot Life: 15 minutes (standard set) 10 minutes (fast set) | <ul style="list-style-type: none"> • Tack free: 7 to 8 hours • Foot traffic: 24 hours • All traffic: 72 hours | <table border="0"> <tr> <td style="text-align: center;">Standard Cure</td> <td style="text-align: center;">Fast Set</td> </tr> <tr> <td style="text-align: center;">7 to 8 hours</td> <td style="text-align: center;">3 to 4 hours</td> </tr> <tr> <td style="text-align: center;">24 hours</td> <td style="text-align: center;">12 hours</td> </tr> <tr> <td style="text-align: center;">72 hours</td> <td style="text-align: center;">24 hours</td> </tr> </table> | Standard Cure | Fast Set | 7 to 8 hours | 3 to 4 hours | 24 hours | 12 hours | 72 hours | 24 hours |
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Physical Properties

@73° F / 23° C, 7-day ambient cure at 50% R.H.

Compressive strength	ASTM D695	12,000 psi
Tensile strength	ASTM D638	2,100 psi
Elongation at break	ASTM D638	6.1%
Flexural strength	ASTM D790	6,500 psi
Abrasion resistance		
CS-17 wheel, 1 kg load	ASTM D4060	30 mg loss
Water absorption (2-hour boil)	ASTM D570	0.09%
Shore D hardness	ASTM D2240	82 (7 days)
Coefficient of friction	ASTM D2047	> 0.6
Heat distortion temperature	ASTM D648	120° F / 49° C
Volatile organic content		0 g/L
Slant shear	ASTM C882	100% concrete failure
Pull-off adhesion	ASTM D7234	450 psi / 3.1 Mpa / concrete failure
Reaction to fire	EN 13501-1:2018	B _{FL} – s1

Chemical Resistance:
Splash & Spill Applications

Water (fresh and salt)
1%-50% Sodium Hydroxide
1%-10% Sulfuric Acid
1%-10% HCL

Butanol
Xylene
111 Trichloroethane
Skydrol Fluids

Limitations:

- Not for use on exterior concrete
- Requires a vapor barrier epoxy in some instances to protect from vapor emission or moisture concerns.
- Subject to UV degradation when exposed to direct sunlight for long period of time (See E100-VR1™ for substitute).
- Not recommended for surfaces subject to continuous water immersion.

Available Packaging:

- 1.5 gal, 3 gal, 15 gal, and 150 gal kits

Cautions, Clean Up, and First Aid:

- Although E100-PT1™ has little or no odor and carriers zero VOC, it should only be used with adequate ventilation. Avoid contact with eyes and skin. **DO NOT TAKE INTERNALLY. KEEP OUT OF REACH OF CHILDREN.** Ensure fresh air entry during application. If you experience watering eyes, headaches, or dizziness or if air monitoring demonstrates vapor levels are above applicable limits, wear a properly fitted respirator (NIOSH/MSHA TC 23C approved) during and after application. Follow respirator manufacturer's directions for use. E100-PT1™ is an irritant which can develop redness of skin and allergic reaction. Always use protective clothing, gloves and eye wear.
- Refer to SDS.441 for additional information before use.

Additional Notes:

- See document: *TD.200 – Resinous Flooring Guidelines* for information pertaining to rising damp, vapor transmission, and applicable recommended testing methods prior to use.
- Preconditioning 100% solid epoxy resins - When exposed to prolonged periods of cold temperature, epoxy resins typically thicken, may crystallize and become harder to flow or spread. To improve the product flow-ability maintain temperature at about 70° F / 21° C before mixing. Crystallized epoxy can be reconstituted at 90° F / 32° C for 12 hours and remixed.

Suggested Storage:

- Store in a temperature and weather-controlled area between 65° F / 18° C and 85° F / 29° C.
- Do not allow to freeze.
- Shelf Life: 1 year from date of manufacture.