GCP 1000

TECH SPEC

The Tech-Spec Data Sheet conforms to editorial style prescribed by the Constitution Specifications Institute. The manufacturer is not responsible for technical accuracy.

ALIPHATIC POLYURETHANE TOP COAT

A Multi-Purpose Water Based Coating

Updated: 10/31/03

GCP 1000 is a permanent, two part, water based, zero VOC, aliphatic polyurethane.

PRODUCT DESCRIPTION

A high performance, **Zero VOC**, water based, odorless, chemical resistant coating designed for general maintenance in non-immersion applications.

USES

-Schools, Universities -Municipalities
-Hospitals, Assisted Living -Hospitality
-Commercial, Retail -Automotive, Fleet
-Pharmaceutical, Processing, Manufacturing
-Concrete, Wood, Masonry, Metal, Structural Steel, Aluminum, Interior/Exterior Painted and Non-Painted Surfaces

FEATURES

-Zero VOC -Durable
-Solvent Free -Flexible
-Graffiti Resistant -Non-Flammable
-Weather Resistant -Chemical Resistant
-FDA, USDA, Green Compliant
-Excellent color and gloss retention
-Impact and abrasion resistant

CHARACTERISTICS

Color/Finish: Clear satin or gloss. Custom colors available upon request. Custom colors may vary from batch to batch. Manufacturer makes no guarantee as to exactness. Tinted material is only available in gloss finish.
(*) Clear Satin is recommended for surfaces where graffiti such as markers, ink, etc. are prevalent.
Reduction: Must be reduced with clean water. Slowly add 16-22 oz *per 1 unit kit* to reach desired viscosity.
Mil Thickness: 3-5 mils wet.
Application Method: Roll or Spray (airless or conventional). *Note: This material cannot be sprayed in Florida - it must be rolled or brushed.*
Curing Mechanism: Evaporation/Infra-Red/ Conventional Oven

PACKAGING

All kits are pre-measured and shortfilled *by weight*. Kits yield the published coverage rates but may vary depending on application method and porosity of surface. Testing will establish coverage rates:

	Container Size		Case
Kit Size	Activator	Base	Qty
Sm Repair	½ pint tin	Pint tin	6
Lg Repair	Pint tin	Quart tin	5
1 Unit	Quart tin	Gallon pail	3
4 Unit	Gallon tin	5 gal pail	n/a

This product is shipped as Class 55.

LIMITATIONS

-GCP 1000 should not be applied in rain, high humidity or wind. Proper methods to protect over-spraying should be implemented.
-Heavier applications can result in ambering, microblistering, poor adhesion and inconsistent sheen.
-GCP 1000 applied to horizontal surfaces becomes slippery when wet.
-Slight discoloring may occur when clear is applied to lighter colors.
-GCP 1000 is not a water repellent or sealer. Retaining or barrier surfaces for earth or flower beds or other such surfaces where moisture vapor transmission is a concern should first be properly sealed and waterproofed. A moisture and pH test must be conducted prior to application of product.
-Efflorescence can cause product failure in certain bricks if they are not properly cured or conditioned prior to applying GCP 1000.
-GCP 1000 is a non-immersible coating.
-Clear satin should be tested prior to applying to wood.
-Product should be compliant with all local, state and federal regulations when applied to previously coated surfaces.

THEORETICAL COVERAGE RATES

Spread rate is dependent on application method, substrate and anticipated level of use. The below figures are for estimation purposes only. Testing should be completed for accurate figures. Application loss factor is not covered due to surface profile, porosity, surface irregularities, application technique, spillage, film build or climatic conditions:

Surface	SqFt	Coats
Concrete	300	1-2
Brick	275	2
Wood	300	2
Metal, Steel	450	1-2
Tile	475	1

STORAGE

Store up to 12 months, unopened at 45°F to 75°F. The material will withstand storage temperatures up to 90°F, but avoid prolonged exposure to sunlight and heat. KEEP FROM FREEZING.

TECHNICAL DATA

Resin Type: Aliphatic Polyurethane
% Solids by weight/volume:
Mixed: Clear - 60% (+/- 2%)/58%
Tinted - 66% (+/- 2%)/ 64%
Pot Life: 1.5 to 2 hours
Dry time: (ASTM D1640)
Temperature & Humidity Dependent
@50° F & 80% RH @ 3 mils wet:
To Touch: 6 hours
Tack Free & to re-coat: 8 hours
Dry Hard: 24 hours
@75°F & 50% RH @ 3 mils wet:
To Touch: 4 hours
Tack Free & to re-coat: 6 hours
Dry Hard: 24 hours
Full cure: 3-5 days. Mandatory.
Dry Film/coat: 2 mils
VOC: 0
Flash Point: >350°F
pH: Activator - N/A Polyol - 9.5 mixed
Mixing Ratio: 50% = 2:1 by weight

CHEMICAL RESISTANCE

Ammonium Hydroxide, Xylene, Skydrol 500 A&B, Acetone, Cellosolve Acetate, Isopropyl Alcohol, Potassium Hydroxide, Perchloroethylene, Methyl Alcohol, Hyjet #3, Urine, Blood, Butyl Cellosolve, Ethy Alcohol, Phosphoric Acid 35%, Sodium Chloride, MEK, Toluene

Specific Gravity: 1.05
Weathering: Excellent
Gloss Retention: Excellent
Appearance & Gloss: ASTM D523 60 Degree Angle > 90 Gloss
Salt Spray: ASTM B117 - 500 hrs; Direct to metal: 1500 hrs. over primer Field (Blister): 10 / Scribe: 7 - 10
Humidity: ASTM D2244 -1500hrs +
Abrasion: ASTM D4060 (taber) <40mg
Hardness: ASTM D3363 - Hto2H
Adhesion: ASTM D2197 - >6kg ASTM D3359 - 5A
Flexibility: ASTM D4195 - Pass
Immersion: ASTM D1308
Elongation: ASTM D522 - >30%
Impact Resistance: ASTM D2794 Direct/Reverse - >160in.lbs
Solvent Resistance: ASTM D4752 - No mar 300 MEK double rubs
Water Vapor Transmission: ASTM E96-93 - grains/hr-sqft = .028 permeability = .076

Technical Assistance

For current information, job specs, warranties, or other questions not covered in this data sheet, contact Genesis Coatings, Inc. at (800) 533-4273.