

Polyurethane 1000

PRODUCT DESCRIPTION AND USE

Polyurethane 1000 is a two-component high solids aliphatic polyurethane. This product offers a remarkable combination of performance properties not found in other polymer coatings. Polyurethane 1000 produces protective films which are hard, flexible and very impact resistant. These coatings feature high abrasion and scratch resistance, exterior durability, easy soil release and excellent resistance to a broad range of chemicals. For exterior applications, a UV stabilizer package is incorporated to insure long term chalk resistance and gloss retention.

Polyurethane 1000 has been designed as a high performance top coat in various protective coating and seamless flooring applications. It provides maximum cleanability and stain resistance when used as a finish coat in color chip flooring. This coating is ideally suited for clean room floors, automotive repair facilities, aircraft hangers, and other high wear areas requiring resistance to fuels and chemicals.

Chemical Composition

Saturated polyester crosslinked with aliphatic polyisocyanate.

Colors

Nine standard colors available, plus clear.

Limitations

- Do not use on unprimed substrates

TECHNICAL DATA

Physical Properties

Mixing Ratio by Volume.....	2-1
Solid Content by Weight.....	73.5%
Solids Content by Volume.....	62.5%
Volatile Organic Compounds.....	420 grams/liter
Viscosity cps (77 Degrees).....	500 average
Pot Life (77°, 1 quart mass).....	2 hours
Pot Life (95°, 1 quart mass).....	1 hour
Pot Life is reduced by increasing temperature and/or mass	
Dry Times (77°)	
Dry to Touch.....	4-6 hours
Recoat.....	10-12 hours
Light Traffic.....	24 hours
Full Cure.....	7 days

Higher temperatures will shorten cure times and lower temperatures will lengthen cure time.

Properties Performance

Gloss (60 degrees).....	90-95
Hardness (Sward).....	30
Pencil Hardness (ASTM D-3363).....	F-HTabor
Abrasion (1000 gm. load 1000 cycles, CS 17 wheel).....	60-65 mg loss
Flexibility (ASTM D-222).....	passes 1/8 in
Impact Resistant (ASTM D-2794).....	passes 160 inch-pound direct and reverse

CHEMICAL AND STAIN RESISTANCE (ASTM D-1308 24 HOUR IMMERSION)

Urine.....	no affect
Blood.....	no affect
Whiskey.....	no affect
Black Ink.....	no affect
Brake Fluid.....	no affect
Skydrol B-4.....	no affect
Hydraulic Fluid #83282.....	no affect
Mineral Spirits.....	no affect
Xylene.....	no affect
MEK.....	film softened
50% Sodium Hydroxide.....	no affect
25% Hydrochloric Acid.....	no affect
25% Acetic Acid.....	no affect
25% Nitric Acid.....	no affect

GENERAL INFORMATION

Moisture Vapor Emissions/Alkalinity Precautions

All interior concrete floors not poured over an affective moisture vapor retarder are subject to possible moisture vapor transmission and related high levels of alkalinity that may lead to blistering and failure of the coating system. It is the coating applicator’s responsibility to conduct calcium chloride and relative humidity probe testing to determine if excessive levels of vapor emissions or alkalinity are present before applying any coatings. These test kits are available from Garage Sealers. Garage Sealers and its agents will not be held responsible for coating failures due to undetected moisture vapor emissions or related high levels of alkalinity.

Surface Preparation

Primed 1000 is intended t be applied over primed or previously coated surfaces. Do not apply directly to concrete. Surface must be absolutely clean, dry and free from all dirt, wax, oil, chalk, incompatible paint or detergent film. Fully cured, previously coated surfaces must be cleaned and sanded lightly with an 80-100 grit sandpaper or otherwise mechanically abraded before recoating. If multiple coats of Polyurethane 1000 are applied, apply additional coats as soon as possible. If more than 24 hours has elapsed or the coating cannot be indented with a fingernail, lightly sand surface to insure intercoat adhesion.

Mixing Instructions

Mix only that amount of material that can be used in a 2 hour period at 77°. Higher temperatures and the addition of accelerator will reduce work time. In hot weather, mix smaller batches. If using the pigmented system, premix part A well before adding Part B. Combining ratio is 2 Part A to 1 Part B. Proportion the amounts carefully and mix for two full minutes. Avoid contamination with moisture. Reseal partially used containers completely.

Applications Recommendations

Polyurethane 1000 should be applied 275-300 sq ft per gallon using a 3/8” or 1/2” nap roller.

Handling Precautions

Material is combustible. Extinguish all flames, pilot lights and electrical motors until all vapors are gone. The vapor is harmful. Use only with adequate ventilation/or appropriate cartridge type respirator. Avoid contact with skin, wear protective gloves. Read MSDS sheets before using.

Slip and Fall

OSHA and the American Disabilities Act (ADA) have now set enforceable standards for slip-resistance on pedestrian surfaces. The current coefficient of friction required by ADA is .6 on level surfaces and .8 on ramps. Garage Sealers recommends the use of angular slip-resistant aggregate in all coatings or flooring systems that may be exposed to wet, oily or greasy condition. It is the contractor and end users' responsibility to provide a flooring system that meets current safety standards. Garage Sealers or its agents will not be responsible for injury incurred in a slip and fall accident.