

# TECHNICAL DATA- GU-20WG

## HIGH PERFORMANCE (water based) POLYURETHANE

### DESCRIPTION

GU-20WG is a two-component, non-yellowing, high-gloss aliphatic polyurethane water-based floor sealer for concrete, cement-based overlays. GU-20WG water-based polyurethane is ideal as a top finish coat on epoxy systems that exhibits excellent characteristics for abrasion resistance, chemical resistance, flexibility, weathering, and UV stability.

GU-20WG water-based polyurethane recommended for concrete coating, laboratories, gyms, residential interiors, auto service centers, bars, clubs, retail stores cafeterias, and chemical exposure areas and more.

### SPECIFICATIONS:

#### RECOMMENDED FILM THICKNESS:

3-5 mils per coat wet thickness (Do not apply thicker)

#### COVERAGE PER GALLON:

320 to 500 square feet (30m<sup>2</sup> to 47m<sup>2</sup>) @ 3-5 mils wet thickness

#### PACKAGING INFORMATION:

3 gallon and 15-gallon kits

3-gallon kit= 2 gal. part A and 1 gal. part B (volumes approximate)

15-gallon kit = 10 gal. part A and 5-gal part B (volumes approximate)

#### MIX RATIO:

2 parts A to 1-part B by volume

#### SHELF LIFE:

1/2 year in unopened containers

#### SOLIDS BY WEIGHT:

Mixed= 42%

#### SOLIDS BY VOLUME:

Mixed= 38%

#### VOLATILE ORGANIC CONTENT:

306 grams/liter

#### PRODUCT STANDARD COLORS:

Clear.

#### FINISH CHARACTERISTICS:

High gloss (>70 at 60 degrees @ glossmeter)

#### IMPACT RESISTANCE:

Gardner Impact, direct & reverse=120 in lb (passed)

#### ABRASION RESISTANCE:

Taber abrasor CS-17 calibrase wheel with 1000 gram total load and 500 cycles= 21.0 mg loss

#### ADHESION:

>300 psi @ elcometer (concrete failure, no delamination) over suitable primer

#### VISCOSITY:

Mixed= 500-1000 cps (typical)

#### FLEXIBILITY:

No cracks on a 1/8" mandrel

#### DOT CLASSIFICATIONS:

Part A "Not regulated"

Part B "Not regulated"

#### CURE RATES: 70F (21C)

pot life – (150 gram mass).....Minimum 1 hour

tack free (dry to touch).....7-9 hours

recoat or topcoat.....8-12 hours

light foot traffic.....24 hours

full cure (heavy traffic).....3-5 days

#### APPLICATION TEMPERATURE:

60-90 degrees F (10-32C) with relative humidity between 50% and 90%.

#### CHEMICAL RESISTANCE:

REAGENT	RATING
acetic acid 5%	C
xylene	D
mek	B
methyl alcohol	B
gasoline	D
10% sodium hydroxide	E
50% sodium hydroxide	D
10% sulfuric	D
10% hydrochloric acid	D
20% nitric acid	C
ethylene glycol	D

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

#### PRIMER:

Recommend GE-10W clear, GE-C10W pigmented or 100 solids primer

#### TOPCOAT:

None recommended

#### LIMITATIONS:

\* After the product is mixed, air contact may cause the material to skim off if left uncovered. See reverse under application instructions.

\* Gloss or colors may be affected by low temperatures, high humidity, or chemical exposure.

\*For best results use a high quality phenolic core 3/8" nap roller.

\*Slab on grade requires moisture barrier.

\*Substrate temperature must be 5°F above dew point.

\*All new concrete must be cured for at least 28 days.

\*Physical properties are typical values and not specifications.

\*Tire contact may cause discoloration or staining.

\* Slight appearances in gloss may vary from batch to batch, we

recommend to use product from same batch for an entire job.

\*Lights like sodium vapor lights can cause discoloring.

\* Apply a suitable test to determine suitability and performance requirements before using.

\*See reverse side for application instructions.

\*See reverse side for limitations of our liability and warrant

## MIXING AND APPLICATION INSTRUCTIONS (GU-20WG)

1) **PRODUCT STORAGE:** Store GU-20WG water-based polyurethane between 60 and 90 degrees F(16-32 C). Have material at room temperature before using. Do not freeze.

2) **SURFACE PREPARATION:** Prepare surface according to the type of complete system to be applied. All dirt, oil, dust, sealers, paint and other contaminants shall be removed to assure proper bonding to the substrate. Use mechanical scarification or acid etching until a desirable result is achieved. Diamond grinding or shot blasting recommended for a best result. A test should be made to determine that the concrete is dry; this can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate is dry enough to start coating. The plastic sheet testing is also a good method to determine if any hydrostatic pressure problems exist that may later cause disbonding.

3) **MIXING AND HANDLING:** GU-20WG water-based polyurethane has a two to one mix ratio by volume-merely mix two gallons of part A with 1 gallon of part B. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. Avoid whipping air into the coating. Improper mixing may result in product failure. Catalyzed product should be placed on the floor within 30 minutes. If left in the pail too long, product will cure at an accelerated rate rendering it useless.

4) **PRODUCT APPLICATION:** Mixed water-based polyurethane can be applied by brush or roller. Maintain temperatures within the recommended ranges during the application and curing process. Properly prime the substrate. It is best to maintain a wet edge to avoid roller marks. Direct sunlight or high temperatures may cause visible roller marking during application. Uneven application thicknesses may cause variations in gloss, therefore apply material as evenly in thickness as possible. Too thick of an application may result in solvent entrapment and product failure. Although the pot life may appear to be longer, do not apply after one hour after the two components have been mixed. Once mixed, air exposure might cause a slight skinning on the surface in the roller pan or container if left uncovered, even for a few minutes. If skinning occurs, remove the thin layer, then stir and continue to use the product for up to an hour after it has been mixed. Material left unused in the mixing pail or application tray may expand and foam up after an extended period of time.

Avoid application on extremely cold or hot days or during wet, foggy weather. Basic rules include:

Apply with ambient and surface temperatures ranging above 50°F (10°C) and below 90°F (32°C) and that will re-main within ranges for at least 12 hours following application. Surface temperature must be a minimum 5°F (3°C) above dew point. Relative humidity should be below 75%

5) **RECOAT OR TOPCOATING:** Multiple coats of this product are acceptable. If you opt to recoat this product, you must first be sure that all of the volatile components have evaporated from the coating during the curing process. Test the coating before recoating or top coating: press the coating with your thumb to test if the fingerprint impression is left on the surface. If no impression is left, then the recoating or top coating can be started. Inspect the coating to ensure no epoxy blushes were developed before recoating or top coating. Any blush must be removed before to recoating or top coating; use regular detergent cleaner to remove any blush. Colder temperatures require more cure time for the product before recoating or top coating. When recoating this product with subsequent coats of the urethane, it is advisable to apply the recoat before 24 hours passes. Also, it is advisable to degloss the previous coat to insure a trouble-free bond.

6) **CLEANUP:** Use water-soluble solvent or soap with water or a before the coating dries.

7) **FLOOR CLEANING:** Caution! Some cleaners may affect the color of the floor installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.

8) **RESTRICTIONS:** Before the coating is fully cured restrict the use of the floor to light traffic and mild chemicals. Let the floor remain dry for the full cure cycle. Surface may be slippery when wet, keep surface dry and clean. Some cleaners may affect the color of the floor; test each cleaner in a small area to check if the color of the floor is affected

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