american coating technologies
www.amcoating.com

Product Technical Data

AM 520 High Performance Urethane (Water Based)

Product Description

AM 520 is a two component low-gloss) aliphatic polyurethane water based floor sealer that exhibits excellent characteristics for abrasion resistance, chemical resistance, flexibility, weathering, and UV stability.

Recommended For

Recommended for auto service centers, warehouses, computer rooms, laboratories, aircraft hangers, cafeterias and chemical exposure areas.

Solids By Weight:
Mixed= 60%

Solids By Volume:
Mixed= 55%

Volatile Organic Content:
35 grams/liter

Standard Colors:
Clear.

Recommended Film Thickness:
3-5 mils per coat wet thickness (Do not apply thicker)

Coverage Per Gallon:
320 to 500 square feet @ 3-5 mils wet thickness

Packaging Information:
3 gallon and 15 gallon kits 3 gal kit= 2 gallons part A and 1 gallon part B (volumes approximate) 15 gallon kit = 10 gallons part A and 5 gallons part B (volumes approximate)

Mix Ratio:
2 parts A to 1 part B by volume

Shelf Life:
1 year in unopened containers.

Finish Characteristics:
low-gloss (<20 at 60 degrees @ glossmeter)

Impact Resistance:
Gardner Impact, direct & reverse=160 in lb (passed)

Abrasion Resistance:
Taber abrasor CS-17 calibrase wheel with 1000 gram total load and 500 cycles= 23.0 mg loss

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

Viscosity:
Mixed= 450-650 cps (typical)

Flexibility:
No cracks on a 1/8" mandrel

Dot Classifications:
Part A "Not regulated"
Part B "Not regulated"

Cure Schedule: (70°)

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 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 NP143/144, NP154, NP015 or NP707LVP or an intermediate coat of NP707 or 137M

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.

Colors or gloss may be affected by high humidity, low temperatures, or chemical exposure.

For best results use a high quality 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 30 days.

Physical properties are typical values and not specifications.

Tire contact may cause staining and discoloration.

Slight appearances in gloss may vary from batch to batch, therefore, use only product from same batch for an entire job.

Lights like sodium vapor lights can cause discoloring.

Always request a sample and 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 warranty.

AM 520 Instructions:

1) PRODUCT STORAGE: Store product between 60 and 90 degrees F Have material at room temperature before using. Do not freeze.

2) SURFACE PREPARATION: Surface preparation will vary according to the type of complete system to be applied. For a one or two coat thin build system (3-10 mils dry) we recommend either mechanical scarification or acid etching until a suitable profile is achieved. For a complete system build higher than 10 mils dry, we recommend a fine brush blast (shot blast). All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate. 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) PRODUCT MIXING: This product 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.

4) PRODUCT APPLICATION: The mixed material 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 skimming on the surface in the roller pan or container if left uncovered, even for a few minutes. If skimming 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.

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. The information on the front side are reliable guidelines to follow. However, it is best to test the coating before recoating or topcoating. This can be done by pressing on the coating with your thumb to verify that no fingerprint impression is left. If no impression is created, then the recoat can be started. Always remember that colder temperatures will require more cure time for the product before recoating can commence. Before recoating or topcoating, check the coating to insure no contaminants exist. If a blush or contaminants are present on a previous coat, remove with a standard type detergent cleaner and allow to completely dry. 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 soap and water or a water soluble solvent 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: Restrict the use of the floor to light traffic and non-harsh chemicals until the coating is fully cured (see technical data under full cure). It is best to let the floor remain dry for the full cure cycle.

NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for you particular purpose. Any use or application other than recommended herein is the sole responsibility of the user. Listed physical properties are typical and should not be construed as specifications.

NO WARRANTY IS MADE, EXPRESSED, OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT. We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sales of our products. Our products contain chemicals that may **CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW THE PRECAUTIONS TO PREVENT BODILY HARM.**