

55% Solids Moisture Cure Urethane

UMC-55 is a single-component ready-to-use moisture cure urethane; no measuring or portioning required. UMC-55 penetrates well into properly profiled surfaces to create a superior bond direct to concrete or can be used as a top coat over many other products. Low viscosity formula that has superior healing properties resulting in a smooth and glossy surface with excellent chemical resistance.

Typical Uses:

Unique formula used in Industrial, Commercial, and Residential applications such as:

- **Fire station, Auto Service Centers**
- **Residential Garages and Basements**
- **Retail, Restaurants and Hospitality**
- **Top Coat Over Many Other Products**

Product Advantages:

- **UV Stable**
- **Excellent Stain - Chemical Resistance**
- **High Gloss Finish for Metallic or Stain Floor Systems**
- **No Measuring or Mixing**

Solids Content – 55% by weight
Dry Time, Tack Free – 4 to 5 hours
Dry Time, Foot Traffic – 8 to 18 hours
Dry Time, Heavy Traffic – 24 to 36 hours
Recoat Interval – 6 to 12 hours

Application Temperature
50° to 80° F

VOC Content - < 250 g/L

Packaging:
1 Gallon

Coverage:

Coverage rates will vary greatly depending on surface porosity and application method. Avoid thick build of UMC, this is a thin mil coating that will not cure clear if allowed to puddle.

Direct to Concrete: 250 – 350 sq ft per gallon

Top Coat: 300 – 400 sq ft per gallon

Directions for Use:

Moisture Testing:

UMC-55 is a single-component moisture cure urethane. Moisture vapor transmission in excess of 3 pounds per 1,000 sf can cause blisters, bubbles and other detrimental effects in the coating. Damage caused by MVT does not indicate a product failure, but a preparation failure. Excessive moisture beyond parameters listed, from below and in the atmosphere, must both be considered before product is placed.

Plastic Sheet Test: (ASTM-D-4263) A preliminary test to see if moisture vapor is present can be done with the simple application of a plastic sheet, 24"x 24" being taped to the surface on all four sides. If after 48 hours

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moisture is present under the plastic a more precise test must be performed to measure the current MVER. The Plastic Sheet test should not be used as a rule that there will not be moisture, but it does give you an indication to perform more accurate testing.

Calcium Chloride Test: Perform a calcium chloride test in accordance with ASTM-F1869 Standard, with surface temperature between 65 - 75°F and 40 - 60% atmospheric relative humidity for 48 hours preceding, and during the test. Follow the instructions listed by the test manufacturer. ASTM F1869 calls for three tests for the first 1,000 sq ft and one additional test for each 1,000 sq ft after that.

RH TESTING: ASTM F-2170 is the standard for testing relative humidity (RH) in concrete floor slabs. To measure the RH conditions deep in a slab of concrete it is necessary to have a thermo-hygrometer with an in-situ probe. The hygrometer is used to calculate RH reading from a probe inserted into holes prepared in the concrete prior to the test. Follow the test manufacturer's instructions for use. The ASTM F-2170 standard calls for at least three tests in the first 1,000 sq. ft. of concrete then one additional test per each 1,000 additional sq. ft.

Substrate Preparation:

SOUND: Concrete that is failing due to poor placement or extensive environmental abuse should be replaced, not repaired. Cracks and joints in concrete should always be treated as moving, with the possibility they will continue moving after the coating is placed. Expansion joints must always be honored since they allow movement in the slab. Holes and divots in the surface should be filled with a suitable material. Semi-rigid joint fillers may be applied in control joints prior to application of the coating, but if excessive movement occurs, a crack will form in the surface of the coating along the joint. Flexible joint sealants should only be applied after the coating is completed and cured. Expectations should be set with the client prior to commencement of the project so they understand that the coating, when bonded properly, will move as the concrete substrate does.

CURED: All concrete must be sufficiently cured to allow for proper hydration. The recommended cure time is 28 days, depending on temperature and humidity.

CLEAN: Surfaces to be coated should be free of contaminants and readily accept water. All potential contaminants on the surface must be removed, including but are not limited to: dust, dirt, oil, grease, paints, glues, sealer, curing agents, releases, efflorescence, chemical contaminants, rust, or algae. Even if grinding is the preferred method it is critical to clean the surface first to keep from pushing contaminants into the pores of the concrete during the grinding process.

PROFILED: Concrete must be profiled to a CSP-2 or CSP-3 for proper bonding. Acid etching is not an acceptable option for smooth or power troweled surface. A water drop test should be performed to make sure water quickly penetrates the surface and darkens it. If water sits on the surface for longer than 15 seconds the concrete is not porous and must be mechanically profiled by shot blasting or diamond grinding. The millage being applied should be considered when choosing the coarseness of the diamond. Surface must be completely cleaned after the mechanical preparation process. The millage being applied should be considered when choosing the coarseness of the diamond. Surface must be completely cleaned after the mechanical preparation process.

ENVIRONMENTAL CONDITIONS: The substrate temperature during application and curing must be within the limits listed above. Ambient temperature should not be used to judge application temperature. Use of a laser temperature gauge is necessary to find the substrate temperature. If product is applied outside of these temperature parameters, the product may not cure properly and will not meet specifications in hardness or chemical resistance.

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Mixing Instructions:

Stir product prior to use as separation may occur during storage.

Application Instructions:

Dip and roll from a roller tray. Do not over-work the product.

RECOAT: Recoat time listed above is directly affected by the ambient surface temperature. Apply additional coatings as early in the recoat window as possible for the best results. Even within the recoat window it is recommended to abrade and clean the existing coat. If the recoat window has passed, it is critical to thoroughly abrade the surface with 80 to 120 grit sanding screens. Thoroughly clean the existing coating before abrading to remove potential contaminants.

Clean Up:

Acetone or MEK.

Maintenance:

Use walk-off mats at entrances to keep the floor free of sand and abrasives to minimize scratching. Apply protective felt pads to furniture and fixtures prior to placing on the coating. Use a pH-balanced cleaner to remove light soils. A dilution of ammonia or vinegar and water will clean most contaminants off the surface. Spills should be cleaned promptly to prevent long term staining. Do not use citric-based cleaners.

Cured Physical Properties:

Flexibility – ASTM D1737 - Pass
Hardness, 7 Days – 5H to 6H
Elongation, percent – ASTM D882-67) – 4.9 to 7.0
Water Resistance - Excellent
Heat Resistance - 300° F
Gloss, 60 Degree – ASTM E97 – 92
Coefficient of Friction – ASTM D2047 – 0.67

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Chemical Resistance Chart:

E = Excellent
D = Discolors
NR = Not Recommended

Brake Fluid – **E**
Chlorinated Water – **E**
Clorox 10% - **E**
Diesel Fuel – **E**
Gasoline – **E**
Hydraulic Fluid – **E**
Hydrochloric Acid 20% - **E**
Isopropyl Alcohol – **E**
MEK – **D**
Methanol – **E**
Motor Oil – **E**
Muriatic Acid 10% - **E**
Nitric Acid 10% - **NR**
Phosphoric Acid – **E**
Skydrol – **E**
Sodium Hydroxide 25% - **E**
Sugar Water – **E**
Sulfuric Acid 10% - **E**
Transmission Fluid – **E**
Urine – **E**
Vinegar 5% - **E**
Water – **E**
Wine – **E**
Xylene - **E**

Slip Resistance Disclaimer:

Notice: The Occupational Safety and Health Administration (OSHA) and the American Disabilities Act (ADA) have set enforceable standards for slip-fall protection on walking surfaces. The ADA standards are the more stringent and require a minimum coefficient of friction (CoF) on level walking surfaces of 0.6 and on ramped walking surfaces of 0.8. The system applicator / end user assumes all responsibility to provide a flooring system that meets all current safety standards. Neither Durável nor its selling agents will be responsible for any injury that may be incurred in a slip-fall accident. Furthermore, Durável recommends the use of slip-resistant aggregate in all coatings or floor systems that could possibly be exposed to wet conditions or become contaminated with oils, grease, or other lubricants. Refer to the technical data sheet on acrylic wax floor finishes that meet requirements for ASTM D2047.

Storage:

Store in well-ventilated place. Keep Cool. Keep container tightly closed. Store locked up.

Disposal:

Disposal of product and packaging should be in accordance with applicable regional, national and local laws

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and regulations.

Shelf Life:

Up to one year from original manufacture date when stored in its original, unopened container at room temperature.

Limitations:

This product is not intended for public use and is intended for use by qualified contractors and installers with proper experience and training in the use of these products, and that have read the complete safety data sheet. Apply product only when substrate and ambient temperatures are within the accepted range and to substrates that are a minimum of five degrees above dew point and will remain so during product cure. During application and cure protect product from all contaminants and traffic.

Warranty:

Durável warrants our products to be of uniform quality, free from defects within manufacturing tolerances, and to conform to published specifications as of the date of sale. Durável has no control over the use of the product and therefore no warranty, expressed or implied, is made or can be made as to the application of the product or the results of use. The manufacturer's obligations shall be limited to refunding the purchase price or providing replacement product for material proven to be defective. Ninety days after delivery of product all warranty and other duties with respect to the quality of the product delivered shall be presumed to have been conclusively satisfied, all liability therefore terminates, and no action for breach of any stated or implied duties may thereafter be commenced. The end user is responsible for determining the product's suitability and assumes all risks and liabilities. Under no circumstances will Durável be subject to or held liable for a consequential damage to anyone in excess of the purchase price of the product.

Disclaimer:

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Durável assumes no responsibility for injury to vendee or third party person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, Durável assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety precautions are followed.

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Safety Instructions:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take action to prevent static discharges. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash face, hands and any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

IF exposed or concerned: Get medical advice/attention

IF ON SKIN: (or hair) Take off immediately all contaminated clothing. Rinse skin with water/ shower

If skin irritation occurs: Get medical advice or attention. Take off contaminated clothing and wash before reuse.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contacts, if present and easy to do.

Continue rinsing. If eye irritation persists: Get medical advice/attention

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

IF SWALLOWED: Immediately call a POISON CONTROL CENTER/doctor

Do NOT induce vomiting.

In case of fire use, "alcohol resistant" foam, dry chemical, halon or carbon dioxide to extinguish.

Collect spillage



Always Review SDS & Technical Data Prior to Use