



FLOW KING 100™

100% SOLIDS EPOXY

DESCRIPTION

FLOW KING 100™ IS A 100% SOLIDS, TWO COMPONENT, SELF LEVELING EPOXY COATINGS DESIGNED TO RESTORE FLOOR CONCRETE AND IMPROVE THEIR APPEARANCE. IT CAN BE COLORED OR MIXED WITH VARIOUS COLORS OR METALLIC POWDER TO DELIVER OPAQUE AND GLOSSY FINISH FLOORS. THEY SHOW EXCELLENT MECHANICAL PROPERTIES AND CHEMICAL RESISTANCE. IT HAS VERY GOOD RESISTANCE TO CRYSTALLIZATION AND DURABILITY WHILE MAINTAINING ITS ARTISTIC LOOK. THESE SYSTEMS COMPLY WITH THE CANADIAN FOOD INSPECTION AGENCY.

PRIMARY APPLICATIONS

- ✓ METALLIC EPOXY FINISHES
 - ✓ RESTAURANTS
 - ✓ PHARMACEUTICAL
 - ✓ RESIDENTIAL HOMES
 - ✓ GARAGES
 - ✓ RETAIL SPACES
 - ✓ CAFES
 - ✓ AIRPLANE HANGARS
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ADVANTAGES

- ✓ LOW VOC CONTENT
 - ✓ 100% SOLIDS
 - ✓ NO SOLVENT ODORS
 - ✓ MEETS USDA and FDA CRITERIA
 - ✓ SUPERIOR BOND TO MANY DIFFERENT TYPES OF SUBSTRATES
 - ✓ GREAT UV RESISTANCE
 - ✓ EXCELLENT CHEMICAL AND ABRASION RESISTANCE
 - ✓ DENSE SURFACE RESISTANT TO BACTERIA & MOISTURE
 - ✓ EASY TO CLEAN
 - ✓ MAY APPLY SEVERAL LAYERS, EXCELLENT ADHESION TO SELF
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MVP COATINGS

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TECHNICAL DATA

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PACKAGING		COLOR	
3 GALLONS (2 GAL PART A : 1 GAL PART B)		CLEAR	
RECOMMENDED THICKNESS			
CLEAR	COATING: 100 TO 160 SQ. FT. WFT 10 TO 16 MILS	PRODUCT QUALITY AND STORAGE SHIPPING AND STORAGE TEMPERATURES FOR PART-A AND PART-B IS BETWEEN 40 F - 90 F AT OR BELOW 50% RELATIVE HUMIDITY, AVOIDING FREEZING TEMPERATURES. IF SHIPPING OR STORAGE TEMPERATURES SHOULD FALL BELOW 65°F (18°C), SOME CRYSTALLIZATION COULD RESULT. UNLESS PROPER ACTION IS TAKEN TO RE-FORM THE ORIGINAL SOLUTION, SUBSEQUENT DIMERIZATION WILL PROCEED QUICKLY AND WILL DETERIORATE THE ASSAY OF THE PRODUCT. NEVER STORE DIRECTLY ON CONCRETE SURFACE, ALWAYS STORE ON PALLETS. DO NOT OPEN UNTIL READY TO USE AND KEEP CONTAINERS SEALED TIGHTLY.	
	METALLIC COAT: 40-100 SQ. FT. WFT 16 MIL – 40 MIL		
	MIX RATIO BY VOLUME		
2 PART A : 1 PART B			
<i>*NOTE: COVERAGE RATES FOR ALL PRODUCTS ARE APPROXIMATE AND VARY BASED ON THE TYPE OF SUBSTRATE, SUBSTRATE POROSITY AND ROUGHNESS AND SIZE OF BROADCAST AGGREGATE.</i>			
WORK TIME	VOC (G/LITRE)	VISCOSITY @ 73°	
55 MIN @ 73°, 50% RH POT LIFE: 10-15 MIN	45 G/L	MIXED	
SOLIDS (ASTM D 2697)	RECOMMENDED THINNER	1500-1800 CPS	
100%	XYLENE	FLOW KING 100	
SUBSTRATE TEMPERATURE		75°	
RE-COAT TIME (MIN-MAX)		6-24 HRS	
CURING DETAILS	TACK FREE	12 HRS	

PHYSICAL PROPERTIES

HARDNESS (SHORE D) (ASTM D2240)	BOND RESISTANCE (PSI) (ASTM D-4541)
85-90	>300 PSI CONCRETE FAILURE
TENSILE STRENGTH (ASTM D 638)	PERMEABILITY (%) (ASTM D-570)
6-7%	0.3%
ABRASION RESISTANCE (ASTM D-4060)	TENSILE STRENGTH (PSI) (ASTM D-638)
.10 G (C1517/1000 CYCLES/1000G)	6500 PSI
COMPRESSIVE STRENGTH (PSI) (ASTM D-695)	ELONGATION (%) (ASTM D-638)
14000 PSI	6.7%
RESISTANCE TO MOLD GROWTH (ASTM D-3273)	RESISTANCE TO FUNGI GROWTH (ASTM G-21)
12000-13000 PSI	0.5-0.7



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SURFACE PREPARATION

SURFACE PREPARATION IS THE ESSENTIAL FIRST STAGE TREATMENT OF A SUBSTRATE BEFORE THE APPLICATION OF ANY COATING. THE PERFORMANCE OF A COATING IS SIGNIFICANTLY INFLUENCED BY ITS ABILITY TO ADHERE PROPERLY TO THE SUBSTRATE MATERIAL. IT IS GENERALLY ESTABLISHED THAT CORRECT SURFACE PREPARATION IS THE MOST IMPORTANT FACTOR AFFECTING THE TOTAL SUCCESS OF SURFACE TREATMENT. SURFACES WILL BE CLEAN, DRY, AND SOUND, THE PRESENCE OF EVEN SMALL AMOUNTS OF SURFACE CONTAMINANTS, DUST, EFFLORESCENCE, LAITANCE, SALTS, CURING COMPOUNDS, DIRT, OIL, FORM RELEASE AGENTS, AND OTHER FOREIGN MATTER CAN PHYSICALLY IMPAIR AND PREVENT COATING ADHESION TO THE SUBSTRATE. A PRIMER SHOULD BE USED TO REDUCE OUT-GASSING IN POROUS SUBSTRATES TO PROMOTE ADHESION.

CONCRETE SHOULD BE CURED FOR A MINIMUM OF 30 DAYS PRIOR TO PRODUCT APPLICATION AND HAVE AT LEAST A 25 MPA COMPRESSION RESISTANCE AND 1.5 MPA TENSILE STRENGTH.

GRIND OR SHOT BLAST CONCRETE BETWEEN CSP 2 - 7.

GRINDING IS PERMITTED ONLY IN AREAS THAT ARE INACCESSIBLE TO SHOT BLASTING EQUIPMENT.

EMISSION TESTING: ALL AREAS TO BE TREATED MUST BE TESTED IN ACCORDANCE WITH ASTM F-2170 (STANDARD TEST METHOD FOR DETERMINING RELATIVE HUMIDITY IN CONCRETE FLOOR SLABS USING IN SITU PROBES). ANHYDROUS CALCIUM CHLORIDE TESTS (ASTM F-1869-11) MAY BE USED ONLY WHERE HVAC IS ON 24X7 AT LEAST ONE WEEK BEFORE AND DURING TESTS AND ONLY BY APPROVAL OF MVP COATINGS, INC. NEW CONCRETE: TESTING SAMPLE CORES OF CONCRETE SLAB FOR PRESENCE OF SEALERS OR OTHER BOND BREAKERS IS STRONGLY RECOMMENDED. TO OBTAIN WARRANTY, FILL OUT WARRANTY APPLICATION. FLOOR AREA, LOCATION OF TESTS, AMBIENT TEMPERATURES AND HUMIDITIES DURING TESTS SHOULD BE RECORDED AND MAPPED, WITH AT LEAST ONE TEST PERFORMED FOR EACH 1000 SQ. FT. OF FLOOR SURFACE TO BE TREATED.

CONCRETE: ALL SURFACE MUST BE CLEAN, SOUND, SOLID, OPEN PORE AND ABSORPTIVE. SLAB MUST BE AT LEAST 4" THICK AND ANY DISTINCT LAYER AT LEAST 2" THICK TO BE CONSIDERED STRUCTURALLY SOUND. REPAIR AND LEVELING LAYERS CONTAINING LATEX OR OTHER COMPONENTS GENERALLY PREVENT ABSORPTION AND PROPER BOND AND SHOULD BE REMOVED. SURFACE SHOULD BE MECHANICALLY PREPARED TO ACHIEVE A SURFACE PROFILE OF ICRI CSP 2-5 (INT. CONCRETE REPAIR INST.) BEAD OR SHOTBLAST STRONGLY PREFERRED. ACID ETCHING IS NOT PERMITTED, NOR CHEMICAL REMEDIATION OF ANY ADHESIVE RESIDUES. SURFACE MUST BE CLEAN, COMPLETELY FREE OF DUST, DIRT, PAINT, SEALER OR ANY CONTAMINANT WHICH MIGHT INTERFERE WITH PENETRATION OR BOND. DO NOT APPLY TO FLOORS WHICH HAVE SEALERS OR BOND BREAKERS APPLIED UNLESS COMPLETELY REMOVED. QUICK TESTS TO HELP DETERMINE CLEAN, OPEN AND ABSORPTIVE CONCRETE USE WATER DROPS. IF DIME SIZE WATER DROPS PLACED AT SEVERAL LOCATIONS ON PREPARED FLOOR DO NOT READILY ABSORB INTO CONCRETE WITHIN 30 SECONDS OR BEADS UP, SURFACE IS NOT SUFFICIENTLY ABSORPTIVE. IN ALL CASES, THOROUGH VACUUMING (WITH DUST CONTAINMENT FILTER) IS NEEDED BEFORE APPLICATION. CLEANING WITH PRESSURE WASHER MAY BE ADVISABLE IN SOME CASES.



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APPLICATION METHOD

THROUGHOUT THE APPLICATION THE SURFACE MUST BE CLEAN AND DRY.

FOR OPTIMUM RESULTS PROCEED WITH APPLICATION WHILE AIR TEMPERATURES ARE BETWEEN 50 F (7.22° C) AND 90 F (35° C). ENSURE THAT THE OUTSIDE TEMPERATURE IS 50°F AND AT LEAST 5° F ABOVE THE DEW POINT AND RISING. APPLY WHILE THE OUTSIDE TEMPERATURE IS DESCENDING, HIGH OR LOW TEMPERATURES AND HUMIDITY CAN SIGNIFICANTLY AFFECT THE CURE TIME AND POT LIFE.

MIX 2 PARTS A WITH 1 PART B FOR AT LEAST 1 MIN USING A LOW-SPEED DRILL. SCRAPE BOTTOM AND SIDES OF CONTAINER TO ENSURE PROPER MIX.

AFTER MIXING THOROUGHLY, IMMEDIATELY POUR THE PRIMER ONTO THE HORIZONTAL SURFACE AND SPREAD EVENLY OVER THE ENTIRE SURFACE USING TROWEL OR SQUEEGEE AND BACK ROLL, AVOID CREATING PUDDLES.

APPLY COATING TO PRIMER WHEN SURFACE IS DRY TO THE TOUCH.

RECOAT WINDOW IS BETWEEN (12) AND (24) HOURS AT 77°.

WILL REQUIRE MECHANICAL ABRASION ONCE IT EXCEEDS THE RECOAT WINDOW.

CLEANING

ALL SPILLED MATERIAL, UNUSED CONTENTS OF CONTAINERS, EMPTY CONTAINERS AND SECONDARY CONTAINMENT SPILLS AND LEAKS MUST BE CLEANED UP IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. ACETONE CAN BE USED FOR CLEANING TOOLS.

RESTRICTIONS

- ✓ THIS PRODUCT IS BEST APPLIED AT A TEMPERATURE RANGE OF 50°F-86°F. WITH MAX RH OF 85%
- ✓ SUBSTRATE TEMP MUST BE 59°F
- ✓ HUMIDITY CONTENT OF SUBSTRATE MUST BE <4% WHEN COATING IS APPLIED
- ✓ DO NOT APPLY ON POURIOUS SURFACES WHERE A TRANSFER OF HUMIDITY MAY OCCUR DURING APPLICATION
- ✓ AVOID EXTERIOR USE ON SUBSTRATES GROUND LEVEL
- ✓ PROTECT FROM HUMIDITY, CONDENSATION AND CONTACT WITH WATER DURING 24 HOUR INITIAL CURING PERIOD
- ✓ SURFACE MAY DISCOLOR IN AREAS EXPOSED TO REGULAR UV LIGHT
- ✓ EXCESSIVE MOISTURE VAPOR IN CONCRETE SLABS MAY CAUSE THE COATING TO DELAMINATE, DISCOLOR OR CAUSE IMPROPER CURING



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RESTRICTIONS

- ✓ HIGH/LOW TEMPERATURES AND HUMIDITY CAN AFFECT POT LIFE AND EXTEND THE CURE TIME
- ✓ SUBSTRATES THAT HAVE BEEN PREVIOUSLY COATED ARE SUBJECT TO ABSORPTION, WHICH MAY AFFECT THE ADHESION OF A NEW COATING.
- ✓ ADHESION TO SUBSTRATE SHOULD BE TESTED AT LEAST 7 DAYS PRIOR TO STARTING ANY COATING PROJECT
- ✓ DO NOT OPEN CONTAINERS UNTIL READY TO USE AND KEEP SEALED TIGHTLY
- ✓ IT IS THE RESPONSIBILITY OF THE END USER TO CHECK THE SUITABILITY OF THIS PRODUCT AND THE SUBSTRATE PRIOR TO ITS APPLICATION. MVP COATINGS, INC. ASSUMES NO LIABILITY FOR SUBSTRATE DEFECTS.

HEALTH AND SAFETY

IN CASE OF SKIN CONTACT, WASH WITH WATER AND SOAP. IN CASE OF EYE CONTACT, IMMEDIATELY RINSE WITH WATER FOR AT LEAST 15 MINUTES. CONSULT WITH A DOCTOR. FOR RESPIRATORY PROBLEMS, TRANSPORT VICTIM TO FRESH AIR. REMOVE CONTAMINATED CLOTHES AND CLEAN BEFORE REUSE. COMPONENTS A AND B CONTAIN TOXIC INGREDIENTS. PROLONGED CONTACT OF THIS PRODUCT WITH THE SKIN IS SUSCEPTIBLE TO PROVOKE AN IRRITATION. AVOID EYE CONTACT. CONTACT WITH MAY CAUSE SERIOUS BURNS. AVOID BREATHING VAPORS RELEASE FROM THIS PRODUCT. THIS PRODUCT IS A STRONG SENSITIZER. WEAR SAFETY GLASSES AND CHEMICAL RESISTANT GLOVES. A BREATHING APPARATUS FILTERING ORGANIC VAPORS APPROVED BY THE NIOSH/MSHA IS RECOMMENDED. PREDICT SUITABLE VENTILATION. CONSULT THE MATERIAL SAFETY DATA SHEET FOR FURTHER INFORMATION.

PROFESSIONAL USE ONLY

READ AND UNDERSTAND ALL THE INFORMATION CONTAINED IN THE PRODUCT TECHNICAL DATA SHEETS, SDS SHEETS AND PRODUCT LABELS PRIOR TO STARTING ANY PROJECT. NOTHING CONTAINED IN ANY OF MVP COATINGS™, INC. MATERIALS RELIEVES THE END USER OF THE OBLIGATION TO READ AND FOLLOW THE WARNINGS AND INSTRUCTIONS FOR EACH OF MVP COATINGS™, INC. PRODUCTS.

SPECIFICATION AND FIELD ASSISTANCE:

CONTACT MVP COATINGS, INC. FOR ASSISTANCE. JOBSITE VISITS BY MVP COATINGS™, INC. EMPLOYEES OR ITS INDEPENDENT AGENTS ARE SOLELY FOR DETERMINING QUALIFICATION FOR WARRANTY.



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WARRANTY STATEMENT

MVP COATINGS™ WARRANTS PRODUCTS TO BE FREE FROM MANUFACTURING DEFECTS AND DEFECTIVE RAW MATERIALS FOR A PERIOD OF 1 YEAR. LIABILITY FOR PRODUCTS PROVEN DEFECTIVE IS LIMITED TO REPLACEMENT OF THE DEFECTIVE PRODUCT.

NOT INCLUDED IN THE WARRANTY IS DAMAGE DUE TO STRUCTURAL DESIGN DEFICIENCIES INCLUDING BUT NOT LIMITED TO SLAB CRACKING, GOUGING OR OTHER DAMAGE DUE TO EQUIPMENT, DELAMINATION CAUSED BY VAPOR TRANSMISSION, OR OTHER ELEMENTS BEYOND THE SCOPE OF PROTECTION OF THIS SYSTEM.

THE INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS DOCUMENT ARE BASED ON RELIABLE TEST RESULTS ACCORDING TO THE MANUFACTURER OF THE PRODUCT. THE DATA MENTIONED IS SPECIFIC TO THE MATERIAL INDICATED. IF USED IN COMBINATION WITH OTHER MATERIALS, THE RESULTS MAY BE DIFFERENT. IT IS THE RESPONSIBILITY OF THE USER TO VALIDATE THE INFORMATION THEREIN AND TO TEST THE PRODUCT BEFORE USING IT. MVP COATINGS, INC. ASSUMES NO LEGAL RESPONSIBILITY FOR THE RESULTS OBTAINED IN SUCH CASES. MVP COATINGS, INC. ASSUMES NO LEGAL RESPONSIBILITY FOR ANY DIRECT, INDIRECT, CONSEQUENTIAL, ECONOMIC OR ANY OTHER DAMAGES EXCEPT TO REPLACE THE PRODUCT OR TO REIMBURSEMENT THE PURCHASE PRICE, AS SET OUT IN THE PURCHASE CONTRACT.

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