

Technical Data Sheet

F1 FLOOR SYSTEM - EXTENDED CURE

HIGH PERFORMANCE POLYASPARTIC POLYUREA

F1 Floor System - EXTENDED CURE is a stand above all, two component polyaspartic aliphatic polyurea, utilizing innovative proprietary nanotechnology. It provides a high gloss, clear coating. It's superior penetration and bonding strength can provide years of abrasion, impact, and wear resistance. It yields chemical splash and spill resistance and hot tire pick-up resistance much like its epoxy counterpart.

Compliances - Specifications : Dried coating is USDA accepted.

Technical Information & Properties	
PROPERTY	VALUE
Solids/Active Content, Percentage by weight	80% +/- 1%
Pot Life	45 minutes
Dry Time - Tack Free	9 - 12 hours
Dry Time - Foot Traffic	12 - 15 hours
Dry Time - Heavy Traffic	36 - 48 hours
Re-Coat Time Window	9 - 24 hours
Application Temperature	50° F - 80° F
VOC (Volatile Organic Compound) Content	Less than 250 grams/Liter mixed A&B
Appearance - Dry	Clear and High Gloss

Key Features

Excellent long term wear capabilities allow for longer life without re-coating.

Slower dry time provides more working time, which can prove to be invaluable in warmer climates.

UV stability allows this to be used in areas saturated by the sun throughout the day.

Can be tinted for solid color applications with *F1 FLOORING COLORANT*

Excellent for use in the Durafleck Floor System

VOC compliant for ALL areas in the United States and Canada.

Recommended Applications

Garages | Auto Service Centers | Laboratories | Cafeterias

Many other interior concrete floors where a fast curing, high performance coating is necessary.



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Precautions and Limitations

This product will not freeze during storage, however, allow temperature to rise to 50°F prior to application.

All HVAC ventilation ducts should be somehow blocked prior to application so solvent fumes are not distributed.

If using indoor, use proper ventilation while applying and for hours after application to ensure fumes are removed.

It is not recommended to apply product over carpet, tile, or other types of floor adhesives.

This product performs best when applied as one or two medium-light coats, not one heavy coat.

Please be aware that this product when cured may be slippery when wet. An anti-slip additive can be added to reduce slip hazards.

All new concrete must be cured for at least 28 days prior to application.

It is not recommended to thin product. Improper thinning may cause coating to delaminate in a short time frame and other performance issues.

This product may darken the surface of many new and existing concrete slabs. Test prior to use.

Physical properties listed on this technical data sheet are typical values not specifications.

SOLVENT VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR MAY BE MOVED BY VENTILATION AND IGNITED BY PILOT LIGHTS, OTHER FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, STATIC DISCHARGE, OR OTHER IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

Application Instructions

MOISTURE TESTING: Concrete floors, especially those not poured over a proper vapor barrier (plastic), are subject to possible moisture vapor transmission which may result in bubbling and/or failure of high performance coatings. Basic moisture testing can be performed by placing a 4' x 4' sheet of plastic on the concrete surface and securely taping it down on all edges. If after 24 hours the concrete is still dry below the plastic, the surface should be ready to coat. If moisture is present, the coating applicator should perform calcium chloride and relative humidity probe testing to determine if excessive levels of vapor emissions are present before applying any coatings.

SURFACE PREPARATION: The concrete surface must be deemed mechanically and structurally sound, thoroughly clean of debris and completely dry. Concrete must be fully cured a minimum of 28 days. It is recommended to prepare the concrete surface by mechanical means such as shot blasting or diamond grinding with 30 grit or coarser diamonds to achieve a CSP-2 to CSP-3 profile. Vacuum concrete surface several times until dust thoroughly removed. If applying over an existing, fully bonded coating that is outside its recommended re-coat window, the surface should be sanded thoroughly with a 60-120 grit sanding screen until the surface is completely dulled with scratches. Vacuum dust thoroughly, rinse with clean water and remove excess water with a wet/dry vacuum or floor scrubber. Allow surface to dry completely prior to application of coating. Where applicable and with adequate ventilation, wipe the surface with acetone and a microfiber dust mop. **CAUTION:** Acetone is extremely flammable! If using acetone follow all safety precautions, make sure no pilot lights, open flames, sources of static electricity, sparks or extreme heat sources are present. Use recommended personal protection for acetone.

Substrate, air and material temperatures must be no less than 50°F and not exceed 80°F. If applied outside these limits the coating may not achieve adequate film formation and may have excessive air entrapment, bubbles, blushing or hazing. Please note that higher substrate, air and material temperatures as well as excessive humidity may speed the cure rate of this product. Cooler temperatures and lower humidity may slow the cure rate of this product.

FOR PERSONAL PROTECTION USE GLOVES, GOGGLES, RESPIRATOR AND OTHER NECESSARY PPE. REFER TO SDS PRIOR TO USE!

TINTING: Tint with F1 Flooring Colorant - ENHANCED CURE (refer to TDS prior to use). 9-16 oz. per gallon is suggested for a solid, opaque finish. Always add color to Part A and drill mix for 2-3 minutes prior to blending A and B. Color may settle during long term storage and be difficult to redistribute. Always test for color acceptance prior to full application. Multiple coats may be necessary for total opacity. Refer to physical ENHANCED CURE chart for color selection.

MIXING: If mixing less than a full kit, mix Part A and Part B separately with a stir stick, low speed mixer or vigorously shake containers prior to measuring out the smaller kit to ensure uniform distribution of all ingredients. In a clean mixing container, blend 1 Part A and 1 Part B using a drill mixer for 2-3 minutes. Avoid creating a vortex in the material which could introduce air and/or moisture content to the mixture. Do not mix more than can be applied within the usable pot life time frame. **DO NOT THIN!**

COVERAGE RATE:

First Coat - Direct to Concrete : 200 - 300 ft² per gallon*

Second Coat - Over Existing Coating : 250 - 350 ft² per gallon*

Over Media Broadcast Systems : 175 - 225 ft² per gallon*

*Coverage rates may vary depending upon surface porosity, texture, application method and prior coating application. Excessive build up should be avoided.

APPLICATION: OVER SMOOTH SURFACES: Using a brush and/or 3/8" nap shedless roller, dip and roll the mixed material from a roller pan. 18" rollers are recommended for any surface to speed up application time and reduce roller marks. Start by placing the wet roller at one corner of an approximate 4' x 4' square and roll the material at an angle to opposite corner applying no pressure to the roller. Spread the material across only that square and immediately back-roll to even out material and roller lines. Adjust the size of your square as needed based on the amount of material being applied with the roller. After finishing the square, move on to the next square using the same technique. While applying keep a wet edge to prevent roller marks. It is recommended to work in sections usually using control joints as dividers to ensure proper application results. Apply the mixed material within the usable pot life time frame. If the material becomes thick while applying and sticking to the roller, stop applying and discard the mixed material. At this point it has reached the end of the usable pot life. Do not allow to puddle! Use a brush to remove excess coating in joints. An airless or HVLP sprayer may also be used.

OVER CHIP SYSTEM SURFACES: Apply the mixed material by pouring directly over flake and spreading evenly with a flat, flexible squeegee and back-roll using a 3/8" nap, shed-free, phenolic core roller. Always fill the roller cover in a puddle before beginning to back roll. Apply evenly at a rate of 175 - 225 square feet per gallon, always keeping a wet edge. Do not allow to puddle. Use a bristle brush to remove excess coating in joints.

RE-COATING: If possible, re-coat within the suggested re-coat window located on page 1. Apply additional coats in the same manner as the first coat. Note that higher substrate, air and material temperatures as well as excessive humidity may greatly reduce the acceptable re-coat window of this product. When working in higher temperatures, always re-coat as early in the re-coat window as possible to avoid failure between coats. If re-coating outside the suggested re-coat window (see page 1) or beyond 24 hours, sand using a 60-120 grit sanding screen to ensure adequate adhesion between coats. If re-coating over a textured media broadcast system outside the re-coat window it is suggested to use a Malish Mal-Grit to prepare the surface. Vacuum dust thoroughly, rinse with clean water and remove excess water with a wet/dry vacuum or floor scrubber. Allow surface to dry completely prior to application of coating. Where applicable and with adequate ventilation, wipe the surface with acetone and a microfiber dust mop. **CAUTION:** Acetone is extremely flammable! If using acetone follow all safety precautions, make sure no pilot lights, open flames, sources of static electricity, sparks or extreme heat sources are present. Use recommended personal protection for acetone.

PLEASE NOTE: Applying material outside the suggested parameters may result in product failure. It is always recommended to test the product in a small, inconspicuous area (on the same concrete substrate) for desired results prior to application. Coverage rates may vary for all coatings and substrates depending on porosity, density, texture etc. When applying, adhere to suggested coverage rates. Applying too thin of a coating may cause inadequate film formation, limited performance expectations and/or undesirable finish. Applying too thick may result to bubbling, hazing, etc. **DO NOT USE ON BRICK.**

CLEAN-UP: Use xylene. Dispose of containers in accordance with local, state and federal regulations.

PRODUCT REMOVAL: Dried, cured sealer may be removed with a commercial paint stripper or by using a diamond grinding method, sandblasting method or similar mechanical action.

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

PACKAGING: Available in 2 gallon and 10 gallon kits.

Always read all technical information, label and SDS prior to use.