



FULL DEPTH SYNTHETIC (FDS) GUIDE SPECIFICATION

Section _____ -SYNTHETIC ATHLETIC FLOORING

PART 1 GENERAL DESCRIPTION

1.1 DESCRIPTION

A. Scope

1. The complete installation of a urethane surface system, as formulated by **ITW Resin Technologies**. Materials include primer, two component urethane, top coat, line paint and aliphatic clear coat.

B. Related work specified under other sections

1. Concrete Substrate- Section 09____
 - a. Slab depression shall be equal to the total thickness of specified system.
 - b. The slab shall be steel troweled and finished smooth to a tolerance of 1/8" in any 10' radius.
No curing agents or sealers are to be applied to the concrete slab.
 - c. Concrete shall be cured for a minimum of 30 days and a moisture content of 3% or less.
2. Membrane Waterproofing- Section 07____
 - a. Concrete sub-floors on or below grade shall be adequately waterproofed beneath and at the perimeter of the slab and on earth of below grade walls. It is the responsibility of the engineer to determine the extent of this need.
3. Thresholds-Section 08____.
4. Game Standard Inserts-Section 11____.

C. Product Description

1. **ITW Resin Technologies Resilient Flooring System** is a premium quality, competition flooring designed for multiple sport use. The top application is a pigmented two component aliphatic urethane finish with two component line paint and aliphatic clear coat

D. Typical Standards (USA)

1. Average thickness of a new installation shall range between 3 mm (1/8 inch) to 12 mm (1/2 inch) or as specified, after consultation with owner or his/her representative concerning the physical and aesthetic requirements of the facility over a properly prepared subsurface.

1.2 QUALITY ASSURANCE

A. Manufacturer

1. Manufacturer of resilient the flooring shall be a firm specializing in manufacturing products specified in this section.

B. Acceptable Installer

1. The complete installation of the flooring system, as described in the scope of these specification, shall be installed by an authorized, factory-trained installer in accordance with the instructions of the manufacturer.
2. Installer must submit list of similar work using Resin Technologies materials.
3. Installer shall be responsible for all matters related to installation for a period of one year

1.3 SUBMITTALS

A. Literature

1. Submit GYMFLEX Full depth technical data Sheets.
2. Upon completion of floor inspection, submit a GYMFLEX Floor Coatings Maintenance Procedures Guide to owner.

A. Samples

1. Submit samples of GYMFLEX Full Depth Synthetic sample in colors requested by customer.

1.4 DELIVERY AND STORAGE

A. Delivery of Materials

1. Materials should not be delivered until site and climate is ready for installation.

B. Storage of Materials

1. The general contractor shall provide a secure, clean, dry location for storage of materials at 50°F to 85°F temperature minimum. Outdoor storage must be fully protected from moisture by a covering with 10 mil polyethylene film and tarpaulin. All materials stored outside shall be inspected by installer/dealer for moisture contamination before application.

1.5 WORKING CONDITIONS

A. Schedule of Installations

1. The floor systems specified here in shall not be installed until all masonry, plaster, tile, marble and terrazzo work is completed, and overhead mechanical trades and painters have finished their works in the floor area.
2. Permanent heat, light and ventilation shall be installed and in operation during and after installation. Moderate room temperature of 65 F to 75 F shall be maintained one week prior to during and after the installation.

3. Sub-floors shall be clean, dry and free of dirt, dust, oil grease, paint alkali, concrete curing agents, hardening and parting compounds, old adhesive residue of other foreign materials.
4. Moisture content of the floor shall not be more than 3 pounds per 1000 square feet per 24 hours when tested with a calcium chloride test kit as per ASTM-1869-98.
5. After the GYMFLEX Full Depth Synthetic System sport surface is installed and game lines are painted the area shall be closed to traffic and activity for a period set by the flooring contractor.

1.6 Warranty

A. Warranty

ITW Resin Technologies, a division on Illinois Tool Works Inc., warrants that its products meet their printed specifications. This warranty expires one year after shipment. If any product fails to meet these specifications, ITW Resin Technologies will, at its option, replace the product or refund the purchase price. ITW Resin Technologies will have no other liability for breach of warranty, negligence or otherwise. All warranty claims must be submitted in writing within one year of date of shipment. No other claims will be considered. ITW Resin Technologies makes no other warranty, expressed or implied, and specifically disclaims any warranty of merchantability or fitness for a particular purpose. Any suggestions concerning the use of products are not warranties. The purchaser assumes the responsibility for determining suitability of products and appropriate use. Under no circumstances shall ITW Resin Technologies be liable for any indirect, incidental or consequential damages, even if advised of possibility of such damages. No distributor or sales representative has the authority to change the above provisions. No change in the above provisions will be valid unless in writing and signed by an officer of ITW Resin Technologies. No term of any purchase order shall serve to modify any provisions of this document.

B. This warranty does not cover floor damage caused (wholly or in part) by fire, winds, floods, moisture, other unfavorable atmospheric conditions or chemical action, nor does it apply to damage caused by ordinary wear, misuse, abuse, negligent, or intentional misconduct, aging faulty building construction, concrete slab separations, faulty or unsuitable subsurface or site preparation, settlement of the building walls or faulty or unprofessional installation of ITW Resin Technologies flooring systems.

PART 2 PRODUCTS

2.1 Acceptable Manufacturers

A. All polyurethane components shall be non-hazardous and not contain any lead, any heavy metals, PCB or formaldehyde and shall be supplied by ITW Resin Technologies.

2.2 MATERIALS

A. Primer

1. Gym-Bond 629 as required over existing asphalt or concrete substrate to promote adhesion of 2 component urethane.

B. Flooring Resin

1. GYMFLEX 8881 is a 2 component, 100% solids, self-leveling polyurethane elastomeric flooring compound. Floor shall be applied to specified thickness in single or layered applications.

C. Finish Coat.

1. GYMFLEX 8553 is a solvent based, pigmented, UV light resistant aliphatic polyurethane top coating. The color shall be selected from a color chart provided by ITW Resin Technologies

D. Line Paint

1. GYMFLEX 8553 Line Paint is a solvent based, high solids aliphatic polyurethane line paint. The color shall be selected from a color chart provided by ITW Resin Technologies.

E. Clear enhanced Floor Finish (optional)

1. GYMFLEX 8553 Clear is a solvent based, high solids clear, aliphatic polyurethane, satin finish for high wear areas.

PART 3 - EXECUTION

3.1 INSPECTION

A. Substrate

1. Inspect concrete slab for proper tolerances and dryness, and report discrepancies to the General Contractor.
2. Concrete slab shall be broom cleaned by the General Contractor.
3. All work required to put the substrate in acceptable condition shall be the responsibility of the General Contractor.
4. Installer shall perform tests for moisture and adhesion prior to applications and report adverse to the General Contractor.

3.2 INSTALLATION

A. Priming

1. The GYMBOND 629 is to be prepared and shall be installed in an appropriate manner and in accordance with manufacturer's recommendations.

B. Placing Materials:

1. The FULL DEPTH SYSTEM shall meet the following minimum physical properties per specified thickness:

Surface Thickness:	3 mm to 12 mm.
Weight:	.85 to 3.4 lb.'s per square foot at depth of 3 mm to 12 mm. depth
Density:	1.25+/- .3
Viscosity of liquid: (cps Brookfield @20 rpm/78°F.)	1500/2000
Solids by weight of liquid:	>99%
Color:	Per specification.
Coefficient of friction:	Dry 0.71-Wet 0.27
Surface Hardness:	55-60 Shore A
Elongation:	100+/-10%
Tensile Strength:	1200+/-120 psi
Water absorption:	Top layer <2%

C. Resilient Resin Layer:

1. Thoroughly mix the GYMFLEX 8881 two-component polyurethane and apply directly prepared substrate with a notched squeegee in one or multiple layers.

D. Topcoat

1. Thoroughly mix the GYMFLEX 8553 two-component polyurethane and apply directly to the resin layer with a lams wool roller or airless spray equipment.
2. Apply the topcoat at a rate of 175 sq. ft. per gallon, or 0.5lbs. per sq. ft. Allow top coat to cure for 24 hours before applying game lines.

E. Line Markings

1. Thoroughly mix the GYMFLEX 8553 Line Paint.
2. Consult architectural drawing for game line locations
3. Line markings and events shall be in accordance with specifications and governing bodies.

3.3 PROTECTION

A. Cure Time

1. No traffic or other trades shall be allowed on the surface for a period of one week following completion to allow for complete cure of finish of finish system.

B. Other Trades

1. It shall be the responsibility of the general contractor to protect the surface from damage by other trades before acceptance by owner or his agent.

C. Safety

1. No smoking, open flames or sparks from electrical equipment or other sources shall be permitted during application of materials.

Manufacturer:

All ITW Resin Technologies Systems are installed by authorized, factory-trained personnel.

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