



**Pacific Polymers**

A Division of **ITW**

# RAPID FLEX

## ONE DAY ELASTOMERIC SURFACING SYSTEMS

**Group A: Slip Resistant Waterproof Traffic Coatings**

**Group B: Resilient Waterproof Flooring**

**Group C: Slip Resistant Waterproof Pedestrian Traffic Coatings**

### 1. PRODUCT NAME

**RAPID-FLEX:** Water-cured, traffic bearing, waterproofing & surfacing systems.

### 2. MANUFACTURER

PACIFIC POLYMERS (A Division of ITW)  
12271 Monarch Street  
Garden Grove, CA 92841  
Tel: 1-800-888-8340  
FAX (714) 898-5687

### 3. PRODUCT DESCRIPTION

#### **Composition:**

- Liquid applied, single component, water-cured, low odor polyurethane deck covering systems designed to be applied in one day with the use of Super Cure.
- Since the **RAPID-FLEX** systems are water-cured, these materials do not need atmospheric moisture to cure, although, curing times will vary slightly depending on ambient temperature.
- The **RAPID-FLEX** materials are non-gassing, which enables the applicator to apply these materials in any thickness without the problems of gassing or foaming.
- With these systems, the use of different slip resistant aggregates allows the specifier to offer a variety of textures, the most popular of which are **Rubber Granules**.
- **Rubber Granules** have the ability to move and flex which provides a soft, silky, resilient texture that is not abrasive like other aggregates. The use of rubber granules as an aggregate is beneficial on patios, decking around the house, pool decks (exposure to chlorine may discolor) and play areas because they will not cut or tear

- the knees, hands or the bottom of feet. Vehicular traffic decks, and certain pedestrian traffic decks, require a much harder slip resistant, such as sand or aluminum oxide.
- **RAPIDFLEX** systems are comprised of a combination of the following components: **RAPID-FLEX HT, RAPID-FLEX AL, Rubber Granules and SUPER CURE.**

**Limitations:** Containers that have been opened must be used up within one or two days since these are moisture-reactive materials. They set up when exposed to air. All surfaces must be completely free of foreign matter and primed, where necessary.

**Shelf Life:** 6 months at 77°F (25°C) in unopened containers.

**Sizes:** Available in 5 gallon pails

**Colors:** Concrete Grey and Tan

#### **WARNINGS AND HAZARDS:**

Before using the products, always refer to MSDS for important warnings and safety information. Use only in areas with adequate ventilation. Avoid breathing vapors. Keep away from heat and flame. Avoid contact with eyes and skin. In the event of skin contact, remove immediately and wash with warm, soapy water. Wear suitable eye protection. Always wash hands before eating.

#### **Basic Uses:**

- **RAPID-FLEX** Systems are designed for rapid, **one-day** (in most conditions) installations over properly prepared concrete or plywood

substrates to create a monolithic, waterproof, durable, elastomeric and slip resistant (when necessary) surface. **RAPID-FLEX** is designed to **protect** and **beautify** a wide range of applications.

- The **RAPID-FLEX** system retains its elastomeric qualities in all climates including areas that are subjected to heavy freeze/thaw cycles. This system will not only ensure complete waterproofing and added protection, it will greatly increase the longevity and aesthetic value of the structure it is used on. Different areas of application require different types of slip resistant aggregate or no aggregate at all.
- **Slip Resistant Traffic Coatings** utilizing the **RAPID-FLEX** components can be used anywhere conventional deck coating systems

are now used, taking advantage of the fast cure and non-gassing features that they offer.

- The **Resilient Flooring Systems** fulfill a great need in retirement homes, hospitals, and convalescent facilities, to prevent injury to persons when falling. At a ¼ inch thick, such systems absorb impact and cushion a fall enormously. Instances where employees stand on their feet for long periods while performing their jobs, will benefit from **RAPID-FLEX** resilient flooring, replacing rubber mats with a truly seamless resilient surface with outstanding sanitary features.

The **Pedestrian Traffic Coatings** provide quickly installed, economical, yet beautiful and functional, waterproof walking decks.

Numerous applications can be found on the following chart.

#### 4. AREAS OF APPLICATION

PACIFIC POLYMERS invites your inquiries concerning special applications where **RAPID-FLEX** Systems can be used.

The **RAPID-FLEX** systems can be broadly categorized in three groups:

- Group A: Slip Resistant Waterproof Traffic Coatings  
 Group B: Resilient Waterproof Flooring  
 Group C: Slip Resistant Waterproof Pedestrian Traffic Coatings

APPLICATION	GROUP A (Exterior and Interior) Aggregate Type		GROUP B (Exterior and Interior) PACPOLY-FLEX RUBBER GRANULES Only Slip Resistant Surface as an option	GROUP C (Exterior and Interior) PACPOLY-FLEX RUBBER GRANULES Only  Slip Resistant Surface
	Sand	Rubber Granules		
Parking Garages	X			
Vehicular Parking/Driving Areas	X			
Pedestrian Ramps	X			X
Vehicular Ramps	X			
Balconies	X	X		X
Patios	X	X		X
Roof Decks	X	X		
Courtyards	X	X		X
Walkways	X			X
Swimming Pools/Spa Decks (may discolor)		X	X	X
Ski Floors/Decks		X	X	
Boat Decks	X	X	X	X
Docks/Gangways	X			X
Veterinary/Animal Areas (stalls, walkways, wash areas, dog runs)		X	X	
Mechanical Room Floors	X			X
Maintenance Areas	X			
Stairways	X			
Warehouse Floors	X			
Resilient Floors			X	

Running Tracks/Gyms		X	
Playground/Play Areas		X	
Freeze/Thaw Areas		X	
Golf Clubhouses		X	
Ice Skating Areas		X	
Recreation/Athletic Floors		X	
Kitchen/Bar Areas		X	
Locker rooms/Dance studios		X	
Restrooms/Showers		X	
Employee Standing Areas		X	

## 5. INSTALLATION

**Surface Preparation:** All surfaces which are to receive **RAPID-FLEX** shall be free of contamination such as water, curing compounds, hardeners, bond-breakers, paint, etc., and must be dry. Substrate surface temperature must be above 45°F (4.4°C) and lower than 100 deg. F (37.8°C). Only 5/8" or thicker (1.6 cm)(minimum) A-C Plugged, exterior grade plywood conforming to U.S. product standard PS 1-74 should be used.

All plywood must be tongue & groove or supported on solid lumber framing or blocking to prevent all differential deflection. A light broom finish is recommended for concrete surfaces. Concrete must be allowed to cure for 28 days, minimum. Contaminants should be removed by beadblasting or acid etching. If etching is used, allow adequate time for surface to dry.

Except for non-moving shrinkage cracks, all other cracks, including butt joints in plywood, flashing to deck transition joints and perimeter joints must be sealed with **ELASTO-THANE 230** or **ELASTO-THANE 230MP**. After a 24 hour cure, all surfaces must be primed with **DECK-THANE PRIMER** or **ELASTO-POXY PRIMER (VOC)** prior to application of the coating system, except for plywood in good condition. All seams between plywood sheets and those between metal flashing (metal flashing must be primed with **INTER-COAT ADHESION PRIMER** and the plywood deck must be reinforced by imbedding a 4" (10.2 cm) wide strip of cloth tape in wet **RAPID-FLEX HT**, which is brushed or rolled evenly over the seam in a width of 5" (12.7 cm) and a thickness of about 20 mils wet (.5 mm). The application of the **RAPID-FLEX SYSTEM** can subsequently be made immediately over the entire area, including the taped areas.

## GROUP-A: SLIP RESISTANT WATERPROOF TRAFFIC COATINGS

### 6. INSTALLATION

**Surface Preparation:** All surfaces to be bonded to must be prepared as stated in Section 5. If there is any question concerning substrate preparation, please call PACIFIC POLYMERS technical sales department.

**Application:** Utilizing a drill with a "Jiffy" mixer, mix 5 gallons **RAPID-FLEX HT** with ½ gallon cool clear water and apply to primed concrete or plywood at a rate of 50 square feet per gallon (1.23 m<sup>2</sup>/liter) with a short nap roller (1/8" or 1/4")(3.2mm or 6.4mm) resulting in a 25 dry mil (.6 mm) thickness. This material may also be applied with a notched squeegee and then backrolled with a short nap roller to remove any lap marks.

After cure, use a drill with a "Jiffy" mixer to mix 5 gallons **RAPID-FLEX HT** with ½ gallon water and apply at a rate of 85 square feet per gallon resulting in a 15 dry mil thickness. Broadcast desired aggregate into the wet coating to the point of refusal. The most commonly used aggregate is 20 mesh sand (different sizes of aggregate may be used, anywhere from 12 to 30 mesh), or use **RUBBER GRANULES** as the system demands.

After cure, sweep or blow off all loose aggregate. Utilizing a drill with a "Jiffy" mixer, mix **RAPID-FLEX AL** for exterior decks, and interior decks, applications with 1 quart of Supercure AL curing agent and apply at a rate of 100 – 115 square feet per gallon, resulting in approximately 10 to 12 mil thickness. Approximately 4 to 5 hours under sunlight will allow light traffic. For heavy traffic allow a minimum of 24 hours.

\*\*\* All cure times are related to the amount of Super Cure used, and ambient temperatures.

For full instructions, see the Super Cure data sheets.

**GROUP- B: RESILIENT WATERPROOF FLOORING****7. INSTALLATION**

**Surface Preparation:** All surfaces to be bonded to must be prepared as stated in Section 5. If there is any question concerning substrate preparation, please call PACIFIC POLYMERS (A Division of ITW) technical sales department.

**Application:** **RAPID-FLEX HT** must be mixed thoroughly as follows: 1 part **RAPID-FLEX HT** to 3/4 parts **Rubber Granules** and 1/4 part cool clear water. Using a drill with a "Jiffy" mixer, thoroughly mix **Rubber Granules** with water and allow rubber to fully absorb water throughout granules. Once the **Rubber Granules** have absorbed the water, mix wet **Rubber Granules** with **RAPID-FLEX HT**, mixing thoroughly. Trowel the mixed material to desired thickness (a good average thickness is 3/16" to 1/4" (4.8mm to 6.4mm)). At 1/4" (6.4mm) thickness, 1 gallon (3.785 liters) of **RAPID-FLEX HT** will yield approximately 10 square feet. For a smooth finish, allow the base coat to cure "as is" (please note that the cured system with no aggregate may be slippery if any type of liquid is spilled on the finished system). For a slip resistant profile, broadcast ground **Rubber Granules** into the wet topping to the point of refusal.

Allow base material to cure. Sweep or blow off excess aggregate. Utilizing a "Jiffy" mixer, mix 5 gallons of **RAPID-FLEX AL** for exterior applications, and interior applications with 1 quart of Supercure AL curing agent and apply at a rate of 100 – 115 square feet per gallon, resulting in approximately 10 to 12 mil thickness. Approximately 4 to 5 hours under sunlight will allow light traffic. For heavy traffic allow a minimum of 24 hours.

\*\*\* All cure times are related to the amount of Super Cure used, and ambient temperatures.

For full instructions, see the Super Cure data sheets.

**GROUP C: SLIP RESISTANT  
WATERPROOF PEDESTRIAN TRAFFIC  
COATING**

**8. INSTALLATION**

**Surface Preparation:** All surfaces to be bonded to must be prepared as stated in Section 5. If there is any question concerning substrate preparation, please call PACIFIC POLYMERS technical sales department.

**Application:** Utilizing a drill with a "Jiffy" mixer, mix 5 gallons of **RAPID-FLEX HT** with ½ gallon cool clear water and apply to the primed concrete or plywood at a rate of 42 square feet per gallon (1.03 m<sup>2</sup>/liter) resulting in a 30 dry mil thickness. Broadcast **Rubber Granules** into the wet coating immediately, to the point of refusal. After cure, sweep or blow off all loose aggregate.

Utilizing a drill with a "Jiffy" mixer mix 5 gallons of **RAPID-FLEX AL** (exterior/interior applications) with 1 quart of Supercure AL curing agent and apply at a rate of 100 – 115 square feet per gallon, resulting in approximately 10 to 12 mil thickness. Complete system is 42 dry mils thick. Approximately 4 to 5 hours under sunlight will allow light traffic. For heavy traffic allow a minimum of 24 hours.

\*\*\* All cure times are related to the amount of Super Cure used, and ambient temperatures.

For full instructions, see the Super Cure data sheets.

**9. TECHNICAL DATA**

See Page 5 for technical data.

**10. AVAILABILITY AND COST**

**RAPID-FLEX** is supplied through building material dealers. Major contractors are supplied directly from **PACIFIC POLYMERS (A Division of ITW)** Prices may vary with quantity and packaging. Quotations are made upon request.

These products are designed and manufactured to be installed by professional installers familiar with surface preparation and application procedures. All others should consult a professional installer; those who choose to install these products without professional assistance do so at their own risk.

**11. PRODUCT WARRANTY**

Satisfactory results depend not only upon quality products but also upon factors beyond our control; methods of application and site conditions are examples of such factors and can affect product performance. This warranty consequently extends only to products installed in strict accordance with the manufacturer's specifications. It is the users responsibility to satisfy himself, by his own information and tests, of the suitability of the product for his own intended use; user assumes all risk and liability resulting from his use of the product. The substrate to which the product is applied must be sound structurally and otherwise. Structural or substrate failures or imperfections resulting in damage to or failure of the product are not covered by this

warranty. Since the use of the product is beyond the control of the manufacturer, the manufacturer assumes no liability for misapplication and misuse of the product.

This warranty does not cover consequential damages, nor does it cover the labor attendant to replacing product in the event of a product failure. The warranty only extends to replacement of the product itself.

All products proven to be defective in manufacture will be replaced at no charge. Since the use of these materials is beyond our control we cannot accept damages in excess of the purchase price of these products.

## **12. MAINTENANCE**

Since, as with all deck coatings, the topcoat is subject to staining by such foreign matter as nitrates, fertilizers, hard water, and other substances, it must be maintained. Please refer to the Maintenance Manual for proper maintenance procedures. The manufacturer is not liable for staining caused by hard water deposits, nitrates, fertilizers and other foreign matter.

If **RAPID-FLEX** is damaged, it can be repaired by cleaning the surface with an exempt solvent (such as Acetone) and recoating it with the **RAPID-FLEX** system.

## **13. TECHNICAL SERVICES**

All of the latest updates to product data and specifications are available at the Pacific Polymers International, Inc. website at [www.pacpoly.com](http://www.pacpoly.com). Since product data and specifications change, it is the users responsibility to make certain the most current versions of product data and specifications are being used.

Technical assistance can be obtained by contacting:

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# RAPID-FLEX

Property	TEST Standard	Rapid-Flex AL Results	Rapid-Flex HT Results
Weight per Gallon (lbs)		9.60 ± 0.2	10.20 ± 0.2
Viscosity (@77°F (25°C))	Brookfield Viscometer	25 ± 5 poises	30 ± 5 poises
Hardness Shore "A" Durometer	ASTM D 2240	90A	70A +/- 5A
Ultimate Tensile Strength	ASTM D 412	2,400 psi ± 10%	1000 psi ± 10%
Ultimate Elongation	ASTM D 412	200%	600%
Bond Strength (plywood)	ASTM D 4541	---	145 psi
Solids Content ( ± 2%)	Calculated		
By Weight		83%	88%
By Volume		78%	80%
Water Absorption (% Weight)	ASTM D 570	1.53%	2.85%
Temperature Service Range		50°F to +200°F (-45°C to + 93°C)	50°F to +200°F (-45°C to + 93°C)
Moisture Vapor Transmission	ASTM E 96	0.8 perms	1.1 perms
Abrasion Resistance [CS-17 Wheel, 1000 gram mass, 1000 cycles]	ASTM D 4060	0.046 gram loss	N/A
Tear Resistance (Die C ) (lb/in)	ASTM D 624	286 ± 10%	165 ± 10%
Potlife (@ 75°F) ( after mixing with water)	Observed	45 mins	20 mins