

# PIP VE-SR 70 Flake

## Vinyl Ester Flake Lining



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440-327-0015 440-353-0549 - FAX

### DESCRIPTION:

**PIP VE-SR 70 Flake** is a catalyzed, novalac vinyl ester resin for heavy duty protection of steel substrates. It is a highly chemical resistant resin that provides excellent resistance to alkalis, inorganic/organic acids, solvents and a broad range of chemicals. It is used for steel tank linings in immersion service

### Typical uses

Process Tanks	Storage Tanks
Stacks / Scrubbers	Refineries
Pulp/Paper	Metal Finishing
Pharmaceutical	Petrochemical
Textile	FGD Systems

### Advantages

- Excellent chemical resistance
- Very low vapor transmission rate
- Long service life vs. common coatings
- 100% reactive material

### Chemical Resistance

In addition to strong chemicals, this system is resistant to most acids, alkalis and solvents. This system has a higher operating temperature than traditional coatings and is excellent for immersion service. Specific information on the chemical resistance properties will be furnished on request.

### Surface Preparation

Metal - For immersion or intermittent splash and spillage conditions, abrasive blast to "White Metal" in accordance with Steel Structures Painting Council Specifications SP-5 or NACE Specification #1. A minimum surface profile of 3.0 mils is required. The substrate must be primed.

### Concrete:

Not for concrete application

**Priming-** Use PIP VE-PR-Flex for or PIP VE-CR for priming. **DO NOT USE AN EPOXY PRIMER FOR PRIMING BENEATH ANY VINYL ESTER COATING.**

### Mixing

Mix using drill motor and Jiffy type or similar paddle. Mechanically mix **PVE-SR 70 Flake** (Part A) and VE-B (Part B) hardener approximately 3-4 minutes.

**Thinner**—None required. DO NOT THIN.

### Mixing Ratio - By Volume

VE-SR 70 Flake-A Resin	1 gal
VE-B Hardener	2.0 oz to 3.0 oz

Contrasting Tint to Differentiate Basecoat from Topcoat

To assure proper coverage of the second coat atop the first coat, a small amount of CPU colorpack may be added to the basecoat rendering it a slightly different shade.

### Handling Properties Working Time

50°F (10° C)	50 min
70°F (21° C)	30 min
90°F (32° C)	15 min

### Application

Must be applied over primed surface.

Primed surface must be dry and free of foreign matter at time of lining application. Test primer by wiping with cloth dampened with styrene. The primer must become tacky. Apply using 10"-12" steel trowel, followed by lightly rolling with a short nap 9" roller dampened with styrene to orientate flakes and smooth the surface.

### Time to Recoat

*when not in direct sunlight*

	Min. time	max. time
50°F (10° C)	8 hrs	36 Hours
70°F (21° C)	4 hrs	24 Hours
90°F (32° C)	2 hrs	18 Hours

Optional resin topcoats available.

### Coverage

Steel substrate Two - 35-40 mil/coats totaling 70 – 80 wet mils will yield theoretical coverage of approximately 16 – 18 ft<sup>2</sup> /gallon.

**Color as Supplied:** off-white

### Packaging

The following standard packages are available

<b>PIP VE-SR 70 Flake</b>	4 gal units
	29 gal units

### Technical and Physical Data

	Test standard	Unit	Value
Generic Type			Vinyl Ester
Weight		lbs/gal	11.0
Color			off-white
Adhesion (steel)	ASTM D4541	psi	>1200
Tensile strength	ASTM C-307	psi	3800
Elongation	ASTM C-307	psi	.6-.9%
Temperature Resistance		210°F (99°C)	
Solids content	Theoretical Calculation	%	100 (reactive)
VOC	Theoretical Calculation	g/L	29

### Safety

Do not use acetone for cleaning purposes.

**PIP VE-SR 70 Flake** contains vinyl ester resins and cumene peroxide catalyst. The product's components have been formulated to optimize physical characteristics such as strength and chemical resistance while minimizing hazardous physical and health factors encountered during application. A concerted effort is made to be aware of the latest chemical toxicological information and to apply this knowledge in a responsible manner to ensure product safety. Use respirators when necessary.

During application of PIP VE-Flake Systems, always wear gloves and appropriate work clothing to minimize contact. Ventilation is required with special consideration for enclosed or confined areas. Air movement must be designed to insure turnover at all locations in work area and

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adjacent areas to avoid buildup of heavy vapors. Use caution when handling flammable liquids, eliminate sources of ignition from work area and containers with residues. Observe safe storage practices by separating resins from hardeners, by keeping solvents in a cool area, free of sources of ignition.

Product Material Safety Data Sheets are available and should be consulted when handling products. These products are for industrial and professional use only; application directions must be followed.

### Maintenance

Periodically inspect the applied material and repair localized areas as needed. Consult your Protective Industrial Polymers representative for additional information.

### Environmental conditions during application

Substrate temperature must be between 50°F and 100°F

Surface temperature must be 5°F above dew point and relative humidity below 90%

### Storage and Shelf Life

Store material in a cool, dry and covered location [50°-90° F (10° - 32° C)], away from fire hazards and direct sunlight. Shelf life is from date of manufacture (DOM).

@ 40-60°F (4-16°C)	4 months
@ 61-85°F (18-29°C)	3 months
@ 86+°F (30°C)	2 months

Higher temperature will shorten the shelf life of these products. The packing drums are to be kept tightly sealed and are to be resealed each time materials have been removed. All liquid products are to be stored in a frost-free place.

**TECHNICAL SUPPORT:** For application questions, please contact your salesman or PIP technical service at 440-327-0015.

**READ MATERIAL SAFETY DATA SHEET (MSDS) FOR SAFETY AND PRECAUTIONS. KEEP OUT OF REACH OF CHILDREN.**

### WARRANTY AND CONDITIONS OF USAGE

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