

MICORLINE 380-R LINER PRODUCT INFORMATION SHEET



AREAS OF APPLICATION:

tanks	hoppers	pumps
sluices	trenches	chutes
duct work	filtration tanks	cyclones
acid pits	screen bottoms	cones
launderers	sumps	pipes
condensate tanks	scrubbers	vats
thickeners	wash boxes	ID fans
conveying tunnels	lassifiers	curbs
zeolite tanks	pipe elbows	cells
surge tanks	coal bins	silos
heavy media vessels	fourdrinier pits	clarifiers
containment areas	flotation cells	savealls
rinse tanks	fan pumps	bunkers
stock chests	broke chests	flumes
pan bottom	starch tanks	columns
collection boxes	settling tanks	
liquor tanks	effluent lines	
white water tanks	precipitators	
fan silos	storage tanks	
plating pits	plating tanks	
screw conveyor troughs	water tanks	

GENERAL PROPERTIES:

MICORLINE 380-R is a vinyl ester resin based lining designed for immersion service or exposure in harsh chemical environments. **MICORLINE 380 - R** is roller applied in four coats to build a thickness of approximately 40 to 50 mil. **MICORLINE 380 - R** is seamless, anti - stick and smooth, preventing material hang-up. This durable lining features excellent resistance to a wide variety of acids and alkalies over the entire range of the PH scale and to operating temperatures as high as 210°F.

MICORLINE 380-R is easy to use and requires no special skills in handling. It may be installed by a local contractor or plant personnel. **MICORLINE 380-R** is easily applied to horizontal, vertical and overhead surfaces and conforms to any shape. The layered installation method of the **MICORLINE 380 - R** ensures total coverage, eliminating the problems associated with pinholes and porosity with many coatings and linings. Easy roller application eliminates the need for costly extended downtimes.

The initial step in the application of **MICORLINE 380 - R** is the application of a **PVE PRIMER**. The primer is used on concrete and steel. On concrete, the primer penetrates to temper and strengthen the concrete and increase the strength at the bond line between the concrete and lining. On steel, the primer wets out the surface and ensures a strong secure bond. Following the primer, two coats of **MICORLINE 380 - R** are applied with a roller. The base coat and intermediate coat are filler resin coats which form the body of the lining system. Specially selected fillers provide exceptional physical strength and resistance to sliding abrasion and wear. The final coat is a clear sealer for the lining which densifies and fills the lining for continuity and produces a glazed - like anti - stick finish.

FEATURES:

- * Superior Chemical Resistance
- * Quick and easy roller application
- * Immersion service to 210°F
- * Resists concentrated acids
- * Excellent adhesion
- * Non-stick finish
- * Protects concrete and steel
- * Horizontal, vertical and overhead installation
- * Follows the contour of any surface
- * Fast setting and cure
- * Eliminates costly downtime

PHYSICAL/CHEMICAL CHARACTERISTICS

Compressive Strength	. . . . .	10,500 psi
Abrasion Resistance	. . . . .	300 mg. loss
Adhesion-Concrete	300 psi (exceeds strength of concrete)	
Adhesion - Steel	. . . . .	500 psi (exceeds range of tester)
Compressive Modulus	. . . . .	3.00 x 10 ⁵
Flexural Strength	. . . . .	6000 psi
Flexural Modulus	. . . . .	1.06 x 10 ⁶
Heat Distortion Temperature	. . . . .	210°F

COVERAGE:

Theoretical: 125 sq. ft. per unit @ 50 mils thickness

WORKING LIFE:

Mixed materials have a working life of approximately 30 minutes at 75°F.

HARDENING AND CURE:

MICORLINE 380-R will harden in 2 hours at 70°F. Complete cure requires 24 hours at 70°F or 12 hours at 90°F.

STORAGE AND SHELF LIFE:

Keep all components clean and dry. Stored at room temperature, the materials should have a shelf life of three months. The catalyst is an oxidizing material and can present fire hazards. Store at 35°F to 55°F.

TEMPERATURE LIMITATIONS:

During the installation and cure, the surface and air temperature should be 60° to 80°F. Materials should be at 70°F to 85°F. Temperature variations will affect performance.

MICORLINE 380-R LINER

PRODUCT INFORMATION SHEET

APPLICATION:

Apply Micor PVE Primer to concrete or steel prior to application of MICORLINE 380-R. Micor PVE is a single component product. Apply it with a roller in a thin coat and let it stand about 30 minutes before topping. The primer should be coated within 6 to 8 hours.

To mix the MICORLINE 380-R lining, pour one gallon of resin into a five gallon pail. Add 1.5 ounce of catalyst and mix. Add one bag of preproportioned fillers and mix thoroughly.

Apply the material with a roller in a thick layer, being careful to fill all holes and surface irregularities. A thickness of approximately 15 to 20 mils per coat is recommended. After allowing the first coat to set, apply a second coat at 15 to 20 mils. The first coat should be tacky, yet firm, prior to recoating. When the second coat has set, apply a sealer coat.

Mix the sealer coat by adding 1.5 oz. of catalyst and 8 oz of wax solution to one gallon of resin. Stir thoroughly. Roller apply the sealer coat in a single coat of 10 to 12 mils. The sealer coat should be applied only as a final coat as rebonding to the wax filled coat is difficult and requires special procedures.

Proper curing of the lining requires plenty of ventilation. To supply air movement in confined areas such as sumps, place a fan on either end of the application and allow it to run until the lining sealer coat is cured.

SURFACE PREPARATION:

Surfaces must be clean, dry and rough prior to application of MICORLINE 380-R. Remove any existing coating, lining, grease, etc. from the surface. Prepare concrete by flash abrasive blasting, acid etching or scarifying. Steel may be prepared by abrasive blasting with a hard, sharp abrasive to provide a Nace #1 blast and a 3 to 4 mil profile in the steel. As an alternative, steel may be abraded with a coarse sandpaper (No. 50 grit) or needle gun.

HANDLING PRECAUTIONS:

MICORLINE 380-R contains solvent styrene. **USE ONLY WITH PROPER VENTILATION.** Foodstuffs must be protected, by the customer, from absorbing this odor during the installation and cure. Proper ventilation to the outside is important to assist in dissipating the odor. Prolonged contact with skin can cause irritation. **ALWAYS WEAR PROTECTIVE CLOTHING AND CHEMICAL SPLASH GOGGLES TO AVOID EYE CONTACT.** MICORLINE 380-R resins are **FLAMMABLE.** Use caution in handling. (Pensky-Martin Closed Cup flashpoint 75-88°F, Tag Open Cup flash point 90-95°F.) Extinguish fires with foam, dry powder or carbon dioxide. **NEVER RECAP CONTAINERS OF MIXED COMPONENTS** as the continuing reaction may cause the container to rupture violently.

READ THE M.S.D.S. SHEET BEFORE USING.

PACKAGING:

One unit of MICORLINE 380-R contains:
5 gallons of MICORLINE 380-R resin

1 container of catalyst
1 container of wax solution
4 bags of aggregate/filler
1 gallon of PVE Primer

CLEAN UP:

Clean tools immediately with a solvent such as lacquer thinner or acetone. These products are **HAZARDOUS** and must be used with **CAUTION** and **MUST** be used with appropriate **VENTILATION**. Read their M.S.D.S. sheets before using.

COMPLIMENTARY INFORMATION:

Our full service lab and technical engineers are available to assist you. For complete information on all systems, contact your local Dealer or our factory at 1-800-284-4308.

CHEMICAL RESISTANCE:

The following guide has been prepared to assist customers in determining the suitability of MICORLINE 380-R for their applications. It is not meant to construe an express guarantee to actual service. We request that customers inspect and test our products to satisfy themselves as to suitability. Service of the MICORLINE 380-R depends upon application and operating conditions.

<u>MATERIAL</u>	<u>CONCENTRATION</u>
Acetic Acid	75%
Boric Acid	all
Butyric Acid	50%
Chromic Acid	20%
Citric Acid	all
Hydrochloric Acid	37%
Hypochlorous	50%
Lactic Acid	all
Nitric Acid	20%
Ammonium Carbonate	50%
Phosphoric Acid	85%
Sulfuric Acid	80%
Tamric Acid	all
Alcohols	all
Ammonium Hydroxide	20%
Sodium Hydroxide	50%
Trisodium Phosphate	all
Calcium Chlorate	all
Sodium Hypochlorite	15%
Xylene	100%

LIMITED WARRANTY: Micor Company Inc. warrants to the original purchaser of its products that they are in conformance to the formulation standards of Micor Company, Inc. and that such products are free from manufacturing defects. Original purchaser's only remedy is replacement of the product. Micor does not warrant or guarantee the workmanship performed by any person or company installing its products. In no event shall Micor be liable for any incidental or consequential damages. This warranty is expressly given in lieu of all other warranties express or implied, including the warranties of merchantability and fitness for use and all other obligations or liabilities on Micor's part. Micor neither assumes nor authorizes any person or persons to assume for us any other liability in connection with the sale of Micor products. This warranty shall not apply to any of Micor's products which have been subject to alteration, abuse or misuse. Micor makes no warranty whatsoever in respect to parts, materials or accessories not supplied by Micor Co. which are used in connection with its products. The term "original purchaser" in this warranty applies to that person, company or corporation to which Micor Company Inc. sold its product or products. The original purchaser accepts these terms and conditions and hereby expressly waives any claim to additional damages.

CAUTION: Always keep out of the reach of children.