

# SWANCOR 917

## EPOXY VINYL ESTER RESIN



### Product Description

**SWANCOR 917** is a vinyl ester based primer for lining on concrete, metal and FRP. It provides strong adhesion and excellent chemical resistance. Due to its excellent heat resistance, it offers excellent interlaminar bonding to laminating polyester or vinyl ester resins. It is designed for use as primer for high temperature environment maintaining good adhesion.

### Fabrication Methods

- Can be easily applied by brushing or rolling depending on substrate.

### Typical properties of liquid resin

Property* <sup>1</sup>	Value
Appearance	Clear amber liquid
Viscosity (cps)* <sup>2</sup>	250~550
Gel Time (min)* <sup>3</sup>	15~25
Shelf Life (months)	3

\*<sup>1</sup> Measurement were obtained under 25°C.

\*<sup>2</sup> LVT-#3-60rpm@25°C.

\*<sup>3</sup> 6% Cobalt: 0.4phr, 100% DMA: 0.05phr, 55%MEKP: 1.2phr.

### Typical mechanical properties

#### Adhesion Strength

To concrete: > 22 Kg/cm<sup>2</sup> (break at concrete, ASTM C307)

Concrete strength: 3,000 psi

To carbon steel: 100 Kg/cm<sup>2</sup> (ASTM D1002)

Heat Distortion Temp: 140°C (ASTM D648)

Elongation: 4.45%(ASTM D638)

### Typical gel time of SWANCOR SW 917

Temperature	Chemical	10~20min	20~40min	40~60min
Cured by MEKP/CoOct/DMA* <sup>4</sup>				
18°C/64°F	CoOct	0.6%	0.5%	0.4%
	DMA	0.08%	0.05%	0.05%
	MEKP	1.8%	1.5%	1.2%
25°C/77°F	CoOct	0.5%	0.4%	0.3%
	DMA	0.05%	0.03%	0.03%
	MEKP	1.2%	1.2%	1.1%
30°C/86°F	CoOct	0.4%	0.3%	0.2%
	DMA	0.05%	0.03%	0.03%
	MEKP	1.2%	1.2%	1.2%

\*<sup>4</sup> Concentration: MEKP: 55%, CoOct: 6%, DMA: 100%

Temperature	Chemical	10~20min	20~40min	40~60min
Cured by BPO/DMA* <sup>5</sup>				
18°C/64°F	DMA	0.06%	0.04%	0.025%
	BPO	1%	1%	1%
25°C/77°F	DMA	0.04%	0.02%	0.015%
	BPO	1%	1%	1%
30°C/86°F	DMA	0.025%	0.015%	0.011%
	BPO	1%	1%	1%

\*<sup>5</sup> Concentration: DMA: 100%, BPO: 98%

### Pretreatment before applying SWANCOR 917

Before applying **SWANCOR 917** primer, the following be confirmed for either concrete and metal substrate:

#### 1. For concrete-

- Aging time longer than 30 days.
- Water content lower than 8%.
- Compression strength higher than 3,000 psi.
- Adequate surface treatment applied.
  - a. Adequate surface treatment can be achieved by the following methods for removing the laitance layer of concrete:
    - Chemical method: removing laitance using 10-12% HCl (Hydrochloric acid), followed by water wash.
    - Sand blasting.
    - Mechanical method.
  - b. Wood trowel is recommended to use for final finish of concrete before applying primer.

#### 2. For metal-

- Surface free of dust, rust and grease etc.
  - b. Before applying **SWANCOR 917**, it is advised to remove the loose material, rust and dirt by sand-blast in order to achieve maximum adhesion. The metal surface should achieve Sa 2 ½.

3. Right before applying primer, careful check is required to make sure of no dust, rust, grease or laitance which will reduce adhesion. After **SWANCOR 917** is applied onto the concrete or metal substrate, laminate should be constructed between 4 hours and 3 days. If it becomes tacky-free, the surface should be roughed before laminating resin is to be applied.

Quality Products with In-Time Service and Innovation

**SWANCOR IND. CO., LTD.**

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### NOTICE IN USE

1. **SWANCOR 917** will present as two-phase liquid while sitting in storage in nature. Thorough mixing is necessary before use in order to obtain maximum performance.
2. If **SWANCOR 917** is blended with cobalt-salt promoters, shelf life will be shortened. Promoted **SWANCOR 917** must be used within two weeks.
3. The gel time of **SWANCOR 917** is affected primarily by catalyst concentration and temperature. The variations of cure characteristics may be caused by the variations of catalyst, humidity, pigment, fillers and other additives. It is recommended that the fabricators check the cure characteristics with a small quantity resin before proceeding for bulk production.
4. **SWANCOR 917** contains organic solvent (styrene). Keep away from heat, sparks and flames.
5. **SWANCOR 917** is a potentially reactive chemical. Please store it in dark and keep away from heat and direct sunshine.
6. Containers, not completely emptied must be closed immediately after use.

### MATERIAL SAFETY AND HANDLING INFORMATION

#### SKIN CONTACT:

Thoroughly wash exposed area with soap and water immediately. Remove contaminated clothing. Launder contaminated clothing before re-use.

#### EYE CONTACT:

Flush with large amount of water immediately and continuously for 20 minutes, lifting upper and lower lids occasionally. Get medical attention.

#### INGESTION:

Do not induce vomiting. Keep person warm, quiet and get medical attention. Aspiration of material into the lungs can cause chemical pneumonitis which can be fatal.

#### INHALATION:

If affected, remove individual to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet, and get medical attention.

#### PERSONAL PROTECTION:

Do not breathe vapors. High concentration of vapor can be hazardous. Keep out of sewers. Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. For large spills, warn public of downwind explosion hazard. Check area with explosion meter before re-entering area. Ground and bond all containers and handling equipment.

#### RESIN STORAGE

Keep away from ignition sources; flames, pilot lights, electrical sparks, and sparking tools. NO SMOKING. Do not store in direct sunlight. Store separate from oxidizing materials, peroxides, and metal salts. Keep container closed when not in use. To ensure maximum stability and maintain optimum resin properties, resins should be stored in closed containers at temperatures below 25°C (77°F). Copper or copper containing alloys should be avoided as containers.

#### SPILLS

Eliminate all ignition sources (flares, flames, including pilot lights electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent or other absorbent material and shoveled into containers.

#### WASTE DISPOSAL

Destroy by liquid incineration in accordance with applicable regulation. Contaminated absorbent should be disposed in accordance to government regulations.

#### PACKAGE

Standard packing is 200 kg steel drum.

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