



**Corrosion/Heat Resistant Epoxy Vinyl Ester Resin**

**Description** HETRON® 922-SV resin is medium viscosity, un-promoted vinyl ester resin. The raw materials used in the manufacture of this resin are listed as acceptable in FDA regulation Title 21 CFR 177.2420 for repeated use in contact with food subject to user's compliance with the prescribed limitations of that regulation.

- Performance**
- Excellent corrosion resistance
  - Excellent impact strength
  - High tensile elongation
  - "FDA" application
  - Flame retardancy ASTM E84-22, Class I rating with 100phr ATH

**Suggested Uses** HETRON® 922-SV resin can be used with hand lay-up, spray-up, and filament winding. It can also be used for flake glass and filled lining and coating compounds.

**Alternative Products** HETRON® 922L epoxy vinyl ester resin can be used when a lower viscosity is desired. HETRON® FR 922 vinyl ester resin provides flame retardancy.

**Typical\* Liquid Resin Properties @25 °C**

Percent Solids,%	54.0 – 56.5
Viscosity - Brookfield, cps	380 – 520
Monomer	Styrene
Color Gardner	< 4
Acidity (Solids) eq/100g	0.02 max
Flash Point Range, °C	23 – 37

\* Typical Values: Based on material tested in our laboratories but varies from sample to sample. Typical values should not be constructed as guaranteed analysis on any specification items.

**Typical Performance Data (For Guidance only)  
Typical Curing Characteristics**

**SPI Gel-time @82.2 °C Bath (2% Luperco1 ATC past)**

Gel-time	Peak Exothermic	Total Time
12 min	187 °C	≤ 20 min



Typical Curing Characteristics

Promoters		Catalyst (9% MEKP)	Temperature	Gel-time
6% Cobalt Naphthenate	DMA			
0.3 %	0.150 %	1.25 %	15.5 – 21.0 °C	10 – 20 min
0.3 %	0.100 %	1.25 %	21.0 – 26.0 °C	10 – 20 min
0.2 %	0.075 %	1.25 %	26.0 – 32.0 °C	10 – 20 min
0.4 %	0.100 %	1.25 %	15.5 – 21.0 °C	20 – 30 min
0.3 %	0.075 %	1.25 %	21.0 – 26.0 °C	20 – 30 min
0.3 %	0.050 %	1.25 %	26.0 – 32.0 °C	20 – 30 min
0.3 %	0.075 %	1.25 %	15.5 – 21.0 °C	30 – 40 min
0.3 %	0.050 %	1.25 %	21.0 – 26.0 °C	30 – 40 min
0.2 %	0.050 %	1.25 %	26.0 – 32.0 °C	30 – 40 min



**CAUTION:** Thoroughly mix promoters with resin before adding catalyst

Promoter	DMA	Catalyst (50% BPO Paste)	Temperature	Gel-time
	0.150 %	2.0 %	24.0 °C	10 – 14 min
	0.100 %	2.0 %	24.0 °C	15 – 20 min
	0.050 %	2.0 %	24.0 °C	30 – 40 min

Typical Physical Properties of Cured Castings @25 °C

Test	Value	Test Method
Barcol Hardness	30	ASTM D-2583
Tensile Strength, psi	12,500	ASTM D-638
Tensile Modulus, psi x 10 <sup>5</sup>	4.6	ASTM D-638
Tensile Elongation at yield, %	4.9	ASTM D-638
Tensile Elongation at break, %	6.7	ASTM D-638
Flexural Strength, psi	20,500	ASTM D-790
Flexural Modulus, psi x 10 <sup>5</sup>	5.0	ASTM D-790
Heat Distortion Temperature, °C	105	ASTM D-648

\* Typical Values, based on material tested in our laboratories. Typical values should not be construed as a guaranteed analysis of any specific lot, or as a specification of the product.



Catalyzed with 1.0% BPO, cured two hours at 71°C, then one hour at 93°C, post-cured two hours at 138°C.



**Master Batch Guide**

<b>6% Cobalt Naphthenate Quantity for PHR:</b>	<b>205 Kg</b>	<b>20 Kg</b>
0.2	410 cc	40 cc
0.3	615 cc	60 cc
0.4	820 cc	80 cc
<b>DMA Quantity for PHR:</b>	<b>205 Kg</b>	<b>20 Kg</b>
0.05	102 cc	10 cc
0.10	205 cc	20.0 cc
0.15	307 cc	30 cc
<b>9% MEKP Quantity for:</b>	<b>1.0 Kg</b>	<b>2kg</b>
1.25	12.5 cc	25.0 cc

**Standard Packaging** 220 KGs Standard Steel Drums

**Dot Label Required** Flammable Liquid

**Certificates and Approvals** The manufacturing, quality control and distribution of the products, by Saudi Industrial Resins comply with;

ISO 9001:2015 and ISO 14001:2015, with WRAS certification to pass BS 6920-Water Regulations advisory Scheme, and with the applicable Lloyd's rules and regulations for classification of special service craft.



### Handling

HETRON® 922-SV resins contain ingredients which could be harmful if mishandled. Contact with skin and eyes should be avoided and necessary protective equipment and clothing should be worn.

**Saudi Industrial Resins Ltd** maintains Material Safety Data Sheets for all of its products. Material Safety Data Sheets contain health and safety information, for development by users of appropriate product handling procedures, to protect employees and customers.

Our **MSDS** should be read and understood by all supervisory personnel and employees, before using SIR`s products in your facilities.

### Recommended Storage

#### Drums

Store at temperatures below 25°C. Storage life decreases with increasing storage temperature. Avoid exposure to heat sources, such as direct sunlight or steam pipes. Keep containers sealed to prevent moisture pickup and monomer loss. Rotate stock.

#### Bulk

Store in stainless steel tanks or tanks lined with epoxy or phenolic coatings. Observe precautions against heat and moisture (see above). An oxygen or dry air spurge may be desirable to keep inhibitors activated. Store at temperature below 25°C.

#### Commercial Warranty

When stored in accordance with the above conditions, Saudi Industrial Resins warrants this product to remain within specifications for three months from the date of shipment. All things being equal, higher temperature will reduce product stability; lower storage temperature will extend product stability.

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BS 6920-Water Regulations advisory Scheme



Applicable Lloyds rules and regulations for classification of special service craft

Notice: S.I.R. makes no warranty or representation as to the suitability of the product as specified herein for any particular application. The determination of the suitability of the above specification for any particular use is solely the responsibility of the user. All precautionary labels and notices should be ready and understood by all supervisory personnel and employees before using. Consult S.I.R. and OSHA regulations for additional safety and health information. Purchaser is responsible for complying with all applicable federal, state or local laws and regulations covering use of the product. Special attention should be given to consumer applications. Freedom to use any patent owned by S.I.R. or others is not to be inferred from any statement contained herein.