

## EZ-Cast™ 1724A/B

## EZ-Cast™ 1724A/EpoPro 956

### EPOXY CASTING SYSTEMS

EZ-Cast™ 1724A/B is a versatile, general purpose epoxy casting system. It is easy to mix by hand or with mechanical mixers and cures to form a rigid casting with a low coefficient of thermal expansion and excellent mechanical properties. The cured casting provides excellent reproduction of details and low shrinkage and can be machined with conventional tools after curing if desired. EZ-Cast™ 1724A/B has a long work-life. A faster set and cure is available using the EpoPro 956 hardener. Both systems can be used to make vulcanizing masters, checking fixtures, holding fixtures, tracing dies, stretch dies, draw dies. They can also be used to cast master models, blocks, to face metal cores, and as laminating systems.

Many variations on the standard EZ-Cast™ 1724 systems are available by request, including colored versions, longer or shorter work-lives, and modified viscosities. Please contact us to discuss your application if you think a modified version would be helpful for your application.

### APPLICATIONS & BENEFITS

- Excellent mechanical properties
- High Compressive strength & surface hardness
- Very low shrinkage during curing
- Excellent reproduction of detail

#### PROPERTIES

<u>EZ-Cast 1724A (resin)</u>		<u>TEST METHOD</u>
Appearance	White, opaque liquid	visual
Specific Gravity	1.79	ASTM D-1475
Viscosity	35,000 cps	ASTM D-2393
Flash point, closed cup	94°C	
<u>EZ-Cast 1724B (Hardener)</u>		<u>TEST METHOD</u>
Appearance	Clear amber liquid	visual
Specific Gravity	0.96	ASTM D-1475
Viscosity	450 cps	ASTM D-2393
Flash point, closed cup	>60°C	
<u>EpoPro 956</u>		<u>TEST METHOD</u>
Appearance	Clear amber liquid	visual
Specific Gravity	1.02	ASTM D-1475
Viscosity	350 cps	ASTM D-2393
Flash point, closed cup	>93°C	
Viscosity Mixed 25°C, cps	14000 cps	ASTM D-2393
Mix Ratio By Weight – 1724A/B	100A:12B	Calculated
Mix Ratio By Weight – 1724A/956	100A:10B	Calculated
Gel Time at 25°C, 4 fl. oz/~200g – 1724A/B	141 minutes	ASTM D-2471
Gel Time at 25°C, 4 fl. oz/~200g – 1724A/956	~60 minutes	ASTM D-2471

# Product Datasheet

Cure Schedules: cast parts can be demolded and handled after 36-48 hours at room temperature (75°F ± 5°F) for the 1724A/B system and about 24 hours for the 1724A/956 system. However, full strength may take up to 7 days to develop. It is also possible to gel the castings for at least 2-4 hours at room temperature and then heat cure for 6-8 hours at 150°F (65°C). Only uniform heating should be applied during curing to prevent warpage of the parts.

## PHYSICAL PROPERTIES

	<u>VALUE</u>	<u>TEST METHOD</u>
Color	White	Visual
Density	1.75g/cc	ASTM D-792
Shore D Hardness	91D	ASTM D-2240
Heat Distortion Temperature	163°F (73°C)	
Linear Shrinkage	0.003%	ASTM D-256
Tensile Strength, psi (resin neat)	9,000	ASTM D-638
Tensile Elongation at break (resin neat)	1.8%	ASTM D-638
Compressive Strength, psi	14,000	ASTM D-695
Compressive Modulus	940,000 psi	
Flexural Strength, psi	8,000	ASTM D-790
Coefficient of Thermal Expansion	19.2 ppm/°F (34.6 ppm/°C)	ASTM D-3386
Dielectric Strength	400 volts/mil	ASTM D-149

**NOTE** : Typical Properties determined using EZ-Cast™1724A/B cured for 7 days at 77°F(25°C). Similar results are achieved with the EZ-Cast™1724A/EpoPro 956. All testing performed at 77°F(25°C) unless otherwise stated. Values are based on laboratory results – not for specification purposes. Please contact us for assistance in setting specification ranges.

## SUGGESTED PROCESSING GUIDELINES

Weigh Part A and Part B in the recommended ratio as accurately as possible into a clean mixing container. Always use weighing equipment having accuracy in proportion to the amounts being weighted. Blend by using a spatula or stirring stick for 2-3 minutes using a kneading motion. Scrape the bottom and sides of the mixing container carefully and frequently to produce a uniform mixture.

EZ-Cast™1724A/B should be vacuum degassed prior to casting to produce the strongest and most void free castings. Pour into released molds or onto properly prepared and released master models. Allow parts to cure for at least 24 – 48 hours at room temperature (depending on hardener) before handling to prevent deformation. If heat curing, keep parts in closed molds or otherwise support the castings to prevent warpage during curing.

## STORAGE GUIDELINES

Store this material in a clean, cool and dry environment in its tightly closed original container. Products may settle during storage and should be thoroughly re-mixed prior to use. Avoid extended exposure to high humidity. Tightly re-seal after use. If the recommended storage conditions are observed the products will have a minimum shelf-life of 12 months from the date of shipment.

## HANDLING PRECAUTIONS

Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheets.

## PERSONAL HYGIENE

See safety datasheets for latest information.

# Product Datasheet



## FIRST AID

In case of contact:

**Skin** – Immediately wash skin thoroughly with mild soap and water. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes and other articles made of leather.

**Eyes** – Immediately flush eyes with plenty of water for 15 minutes and get prompt medical attention.

**Inhalation** – Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

**Ingestion** – Do not induce vomiting. Drink plenty of water to dilute the material consumed and contact physician immediately. Never give anything by mouth to an unconscious person.

## DISCLAIMER

**IMPORTANT:** The following supersedes Buyer's documents. **SELLER / MANUFACTURER MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, INCLUDING OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** No statements herein are to be construed as inducements to infringe any relevant patent. Under no circumstances shall Seller / Manufacturer be liable for incidental, consequential or indirect damages for alleged negligence, breach of warranty, strict liability, tort or contract arising in connection with the product(s). Buyer's sole remedy and Seller's sole liability for any claims shall be Buyer's purchase price. Data and results presented are based on controlled or laboratory work and must be confirmed by Buyer by testing for its intended conditions of use. The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.

**Specialty Polymers & Services, Inc. (SP&S)**

**27822 Fremont Court**

**Valencia, CA 91355**

**[www.spolymers.com](http://www.spolymers.com)**

**Tel: 661-294-1790**

**Fax: 661-294-0640**

**[info@spolymers.com](mailto:info@spolymers.com)**