

EPOXY CASTING RESINS

ALUMINUM-FILLED, HIGH-TEMPERATURE



Freeman offers a broad, diverse line of pourable epoxy casting resins for the production of foundry patterns, core boxes, molds, fixtures, and tooling. The aluminum-filled resins are gray, readily machinable, and available with higher temperature resistances.



Specifications

	Mix Ratio (by	Mix Ratio (by)	ardéner. Gel Time (min)	Demold Time (hr.) @75ime	Hardness (Shore D)	Mixed Viscosit.	Density (a.	Volumetric Yiel	Shrink (in./in.)	Compressive Strength	Flexural Strenger	Tensile Strengti	C.T.E. (İn./İn./ºE)	Deflection Temp.	
RenCast 4036 / Ren 1500 (Discontinued) See Freeman 850/50	100:6	100:10	60	24*	90	20,000	1.69	16.5	0.004	30,000	7,500	6,500	1.90 x 10 ⁻⁵	-	
RenCast 4036 / Ren 1511 (Discontinued) See Freeman 850/51	100:13	100:22	140	24*	91	15,000	1.58	17.6	0.005	25,800	9,300	6,300	2.25 x 10 ⁻⁵	-	
RenCast 4037 (Discontinued) See Freeman 850/51	100:13	100:22	140	24*	91	15,000	1.58	17.6	0.005	25,800	9,300	6,300	2.25 x 10 ⁻⁵	-	
Freeman 850/50	100:6	-	45	24	89	18,000	1.63	16.9	-	35,000	11,500	6,800	2.10 x 10 ⁻⁵	355	
Freeman 850/51	100:7	8:1	200	24	89	18,000	1.63	16.9	-	36,300	11,200	6,600	2.11 x 10 ⁻⁵	355	
Freeman 925	100:8	100:13	37	24	90	11,000	1.68	16.5	0.001	40,000	18,000	10,200	-	225	
Sika EC-415	100:10	_	120-180	24	89	35,000	1.3	15.38	0.0075	15,980	7,743	3,311	-	428	
ASTM	_	_	D-2471	_	D-2240	D-2393	D-792	D-792	D-2566	D-695	D-790	D-638	D-696	D-648	

Freeman 850/50

- ▶ Castable up to 1" thick
- ▶ 45 min. gel time
- ▶ 89 Shore D

Freeman 850 with Freeman 50 Hardener gels at room temperature but requires a heated post cure to obtain maximum properties and heat resistance. This system is designed

for use where temperatures may reach up to 350°F. Freeman 850 is well suited for constructing vacuum form tools, prototype injection molds, compression molds, prepreg molds, and other high temperature tooling. It is castable up to 1" in thickness.

Freeman 850/51

- ▶ Castable up to 4" thick
- ▶ 200 min. gel time
- ▶ 89 Shore D

Use Freeman 850 with Freeman 51 Hardener to obtain similar qualities as Freeman 50 Hardener but with a casting thickness of 4". This does increase the gel time to over 3 hours.

Freeman 925

- ▶ Castable up to 1" thick
- ▶ 37 min. gel time
- ▶ 90 Shore D

Freeman 925 offers high impact and abrasion resistance, high accuracy,



and low shrinkage. It is commonly used in prototype injection molding, vacuum forming, and high-temperature fixtures, handling elevated temperatures up to 225°F.

ABOUT FREEMAN MANUFACTURING & SUPPLY CO.



Freeman is North America's extensive composites manufacturing materials supplier offering a comprehensive selection of fiberglass and carbon fabric, resins, releases, vacuum-bagging materials, and high-temperature tooling boards.

Freeman's 13 locations across North America and dedicated technical team allows for high-quality products and service.

BRANCH LOCATIONS & PUBLIC WAREHOUSES

Freeman has strategically placed satellite locations across North America with customer service representatives ready to help. Thousands of products are stocked at these locations as well as public warehouses to reduce your shipping costs.

STRATEGIC & EFFECTIVE STOCKING SYSTEMS

Freeman's inventory staff constantly monitors sales and stocking data across the country to properly provide the right amount of products at each location.

WORLDWIDE SHIPPING

Freeman ships orders all across the globe and has various international distributors available to supply customers with top-quality products.

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TERMS & CONDITIONS