



OTHER EPOXY CASTING RESINS

Iron-filled epoxy casting resins (black in color) are heavy, highly wear-resistant compounds that are suitable for foundry patterns or thin-gauge metal-forming tools. Freeman also offers a clear epoxy casting system for making clear parts and molds.



Specifications

	Mix Ratio (by wt.) Resin:Hardener	Mix Ratio (by vol.) Resin:Hardener	Gel Time (min.) @ 72°F	Demold Time (hr.) @ 72°F	Hardness (Shore D)	Mixed Viscosity (cps)	Density (g/cc)	Volumetric Yield (in. ³ /lb.)	Shrink (in./in.)	Compressive Strength (psi)	Flexural Strength (psi)	Tensile Strength (psi)	C.T.E. (in./in./°F)	Deflection Temp. (°F) (264 psi)
Iron-Filled Epoxy Casting Resins														
<i>RenCast 3209-1 (Discontinued)</i> <i>See Freeman 815</i>	100:10	100:25	90	24	75	15,000	2.04	13.5	0.005	16,500	8,400	5,500	2.60 x 10 ⁻⁵	165
<i>RenCast 3209-2 (Discontinued)</i> <i>See Freeman 815</i>	100:11	100:28	240	24	85	15,000	2.15	12.9	0.003	11,500	8,000	5,000	3.20 x 10 ⁻⁵	120
<i>RenCast 3253 (Discontinued)</i> <i>See Freeman 815 & 855</i>	100:5	100:16	100	24	90	7,500	2.99	9.3	0.002	15,200	8,500	7,100	3.23 x 10 ⁻⁵	120
<i>RenCast 3261 (Discontinued)</i> <i>See Freeman 855</i>	100:6	100:16	25	24	88	35-50,000	2.94	9.4	0.003	16,500	8,500	6,000	3.00 x 10 ⁻⁵	138
Freeman 815	100:10	100:26	85	24	85	20,000	2.24	12.4	0.001	14,600	7,800	6,100	-	135
Freeman 815-2	12:1	1.5:1	240	24	85	35,000	2.27	12.2	0.001	12,600	7,400	5,400	-	123
Freeman 855	100:10	100:25	150	24	87	13,950	2.23	12.4	0.001	13,400	9,100	6,800	2.80 x 10 ⁻⁵	230
Freeman 825	100:10	4.25:1	50	24	90	Thixotropic	-	-	-	14,600	9,253	4,605	2.13 x 10 ⁻⁵	168
<i>RenCast 3215-3 Mix 1 (Discontinued - no alternative)</i>	100:50	100:95	60	24	45	4,600	1.48	18.7	0.002	-	-	300	-	77
<i>RenCast 3215-3 Mix 2 (Discontinued - no alternative)</i>	100:40	100:76	65	24	70	5,400	1.51	18.3	0.001	-	300	1,200	-	77
<i>RenCast 3215-3 Mix 3 (Discontinued - no alternative)</i>	100:30	100:57	70	24	85	6,200	1.54	18.0	0.002	12,600	6,900	4,300	-	77
Clear Epoxy Casting Resins														
<i>RenCast 140 (Discontinued)</i> <i>See Freeman 1140</i>	100:25	100:30	40	24	80	1,300	1.09	25.4	-	-	-	9,500	-	-
Freeman 1140	100:33	2.8:1	65	24	80	940	1.08	25.6	-	15,000	-	5,300	-	200
ASTM	-	-	D-2471	-	D-2240	D-2393	D-792	D-792	D-2566	D-695	D-790	D-638	D-696	D-648

Freeman 815 Iron-Filled

- ▶ Castable up to 2" thick
- ▶ 85 min. gel time
- ▶ 85 Shore D

Freeman 815 features low shrinkage and higher abrasion resistance than our aluminum-filled epoxies. It is used for foundry patterns, stretch forms, corebox construction, dies and

some metal forming applications. Freeman 815-2 is similar to Freeman 815 but offers longer working time and higher casting thickness limit.

Freeman 855 Iron-Filled

- ▶ Castable up to ½" thick
- ▶ 150 min. gel time
- ▶ 87 Shore D

Freeman 855 is an iron-filled epoxy tooling resin that features a higher abrasion resistance than our aluminum-filled epoxies. It is used in foundry patterns, corebox

construction, and some metal forming applications.

Freeman 825 Iron-Filled

- ▶ Castable up to 3" thick
- ▶ 50 min. gel time
- ▶ 90 Shore D

Freeman 825 offers good abrasion resistance. Its paste-like viscosity makes it ideal for use as a potting compound. It may also be used for foundry patterns, stretch forms,

corebox construction, dies and some metal forming applications.

Freeman 1140 Clear

- ▶ Clear
- ▶ 65 min. gel time
- ▶ 80 Shore D

Freeman 1140 is a clear, two-component epoxy casting system specifically designed for making clear parts or molds. It is also ideal for potting and encapsulating

applications. It features low shrinkage, good chemical resistance, and creates tough impact resistance castings.

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.

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