

Freeman FMSC Tooling Plastics Specifications

FMSC No.	Mix Ratio (by wt.) Resin:Hrdnr	Mix Ratio (by vol.) Resin:Hrdnr	Gel Time (min.) @ 72°F	Specific Gravity (mixed)	Hardness (Shore D)	Shrink (in / in)	Compressive Strength (psi)
601	100:10	100:14	28	1.39	88	-	39,900
605 - 15	100:16	4.99:1	20	1.3	82	-	40,000
605 - 45	100:20	3.8:1	37	1.284	86	-	40,000
690	100:33	100:37	90	1.1	85	-	26,500
701	100:8	100:13	15	1.48	87	-	13,200
705 - 15	100:14	4.9:1	15	1.414	90	-	16,800
705 - 45	100:14	4.9:1	45	1.414	90	-	16,800
706 - 45	100:14	4.9:1	45	1.32	90	-	16,800
801	100:12	100:23	150	1.7	86	0.002	12,500
805	100:18	3.4:1	150	1.474	88	0.001	17,200
855	100:10	3.95:1	150	2.234	87	0.001	13,400
915	100:21	3.1:1	180	1.341	85	-	39,500
917	100:10	100:13	52	1.46	92	-	24,500
925	100:8	7.55:1	37	1.68	85	0.001	40,000
935 - 15	100:11	5.62:1	28	1.559	88	-	26,500
935 - 30	100:11	5.62:1	43	1.599	90	-	26,500
935 - 90	100:11	5.62:1	90	1.591	88	-	26,500
945	100:10	100:14	50	1.4	90	-	25,000
1010	1:1	1:1	60	0.95	77	0.0003	5,000
1020	100:33	2.74:1	50	0.456	55	0.0005	28,000
1030	41:100	1:3	9	1.04	70	-	-
1035	1:1	1:1	30	1.02	40A	-	-
1035T	80:100	1:1	20	1.17	40A	-	-
1040	10:100	9:100	28	1.04	50A	0.001	-
1060	100:60	100:60	28	1.05	60	0.001	-
1070	100:92	1:1	3	1.05	70	0.004	-
1075	100:50	100:52	5	1.13	72	0.003	-
1080 Fast	117:100	1:1	7	1.12	80	0.001	8,300
1080 Slow	117:100	1:1	20	1.12	80	0.001	8,300
1080 Clear	100:90	1:1	20	1.04	80	0.001	-

Freeman FMSC Tooling Plastics Specifications (Continued)

Deflection Temp. (°F)	Flexural Strength (psi)	Tensile Strength (psi)	C.T.E. (in / in / °F) *	Flexural Modulus (psi)	Mixed Viscosity (cps)	Volumetric Yield (cu. in. / lb.)	FMSC No.
128°	34,600	25,000	-	-	3,000	19.9	601
188°	33,500	25,300	-	1.8 x 10 ⁶	2,850	21.28	605 - 15
188°	33,500	25,300	-	1.8 x 10 ⁶	2,800	21.56	605 - 45
180°	39,900	35,500	-	1.3 x 10 ⁶	1,445	25	690
127°	10,800	6,100	-	-	Thixotropic	18.7	701
250°	7,000	5,100	-	.76 x 10 ⁶	18,300	19.58	705 - 15
250°	7,000	5,100	-	.76 x 10 ⁶	18,300	19.58	705 - 45
250°	7,000	5,100	-	.76 x 10 ⁶	15,000	20.97	706 - 45
142°	11,590	7,280	3.82 x 10 ⁻⁵	-	4,650	16.3	801
200°	9,600	8,100	-	1.1 x 10 ⁶	9,750	18.78	805
230°	9,100	6,800	-	1.1 x 10 ⁶	13,950	12.39	855
250°	36,800	25,000	3.2 x 10 ⁻⁶	1.7 x 10 ⁶	6,000	20.64	915
301°	30,574	23,000	2.56 x 10 ⁻⁵	1.6 x 10 ⁶	4,000	19	917
225°	18,000	10,200	-	1.4 x 10 ⁶	11,000	16.48	925
370°	7,900	4,000	2.3 x 10 ⁻⁵	1.3 x 10 ⁶	27,500	17.76	935 - 15
370°	7,950	4,000	2.3 x 10 ⁻⁵	1.3 x 10 ⁶	29,500	17.31	935 - 30
370°	7,950	4,000	2.3 x 10 ⁻⁵	1.3 x 10 ⁶	25,350	17.4	935 - 90
310°	8,000	5,000	3.7 x 10 ⁻⁵	-	Thixotropic	19.9	945
180°	4,600	3,800	-	3.1 x 10 ⁵	Putty	29.14	1010
190°	32,000	-	-	1.84 x 10 ⁶	Putty	60.7	1020
-	-	-	-	-	Paste	26.7	1030
-	-	450	-	-	1,500	27.2	1035
-	-	-	-	-	Thixotropic	23.6	1035T
-	-	1,190	-	-	1,350	26.6	1040
-	-	3,200	-	-	2,600	26.36	1060
-	-	3,000	-	-	80	26.6	1070
-	11,590	5,442	58.3 x 10 ⁻⁶	-	200	24.3	1075
134°	9,500	6,650	-	2.88 x 10 ⁵	150	24.7	1080 Fast
134°	9,500	6,650	-	2.88 x 10 ⁵	150	24.7	1080 Slow
-	11,000	2,500	-	-	600	26.7	1080 Clear