

PHYSICAL AND MECHANICAL PROPERTIES (English)

Values are based on material 0.030 x 1/2 inch and will vary from those for other thickness to width variations

Truflex Type	ASTM Flexivity F x 10 ⁻⁷	Maximum sensitivity temperature range °F	Useful deflection temperature range °F	Recommended maximum temp °F	Modulus of elast. E, lbs/sq.in by 10 ⁶	Resistivity at 75°F ohms cm/ft.	Density lb./cu.in.	ASTM type	Remarks
	50° - 200° F temp range								
A1	150	0 to 300	-100 to 350	350	18.0	74	0.300	--	Brass / Invar
B1	150	0 to 300	-100 to 700	1000	25.0	475	0.295	TM1	
B11	141	150 to 450	-100 to 1000	1000	25.0	452	0.295	--	Best all purpose 150 to 450°F (65 to 232°C)
B2	133	100 to 550	-100 to 1000	1000	25.0	440	0.295	TM6	Best all purpose 100 to 550°F (38 to 260°C)
B3	118	200 to 600	-100 to 1000	1000	25.0	415	0.296	TM30	Best all purpose 200 to 600°F (93 to 316°C)
B100R	106	0 to 300	-100 to 700	1000	27.5	100	0.308	TM9	Intermediate Resistivity, General Purpose 0 to 300°F (-20 to 150°C)
B125R	124	0 to 300	-100 to 700	1000	27.0	125	0.305	TM10	Intermediate Resistivity, General Purpose 0 to 300°F (-20 to 150°C)
B150R	134	0 to 300	-100 to 700	1000	26.5	150	0.303	TM11	Intermediate Resistivity, General Purpose 0 to 300°F (-20 to 150°C)
B175R	138	0 to 300	-100 to 700	1000	26.0	175	0.301	TM12	Intermediate Resistivity, General Purpose 0 to 300°F (-20 to 150°C)
B200R	141	0 to 300	-100 to 700	1000	26.0	200	0.300	TM13	Intermediate Resistivity, General Purpose 0 to 300°F (-20 to 150°C)
B250R	147	0 to 300	-100 to 700	1000	25.5	250	0.298	TM14	Intermediate Resistivity, General Purpose 0 to 300°F (-20 to 150°C)
B300R	149	0 to 300	-100 to 700	1000	25.5	300	0.297	TM15	Intermediate Resistivity, General Purpose 0 to 300°F (-20 to 150°C)
B350R	149	0 to 300	-100 to 700	1000	25.0	350	0.295	TM16	Intermediate Resistivity, General Purpose 0 to 300°F (-20 to 150°C)
B400R	150	0 to 300	-100 to 700	1000	25.0	400	0.295	TM14	Intermediate Resistivity, General Purpose 0 to 300°F (-20 to 150°C)
B100R30	90	200 to 550	-100 to 1000	1000	26.5	100	0.307	--	Intermediate Resistivity, Special Use 200 to 550°F (93 to 288°C)
BP1*	185	0 to 300	-100 to 500	800	20.0	650	0.278	--	Better Corrosion Resistance and Joining Compared to P675R
BP10	145	0 to 300	-100 to 500	800	19.5	675	0.275	--	Better Corrosion Resistance and Joining Compared to P675R
BP560R*	148	0 to 300	-100 to 500	800	21.5	560	0.285	--	Medium Flexivity. Higher Resistivity
C1	152	0 to 300	-100 to 700	1000	25.0	483	0.295	TM35	High strength, all purpose 0 to 300°F (-20 to 150°C)
C11*	141	150 to 450	-100 to 900	1000	25.0	456	0.295	TM19	High strength, all purpose 150 to 450°F (65 to 232°C)
C3	117	200 to 600	-100 to 800	1000	25.0	420	0.296	TM18	High strength, all purpose 200 to 600°F (93 to 316°C)
E1*	148	0 to 300	-100 to 700	1000	25.0	500	0.295	TM36	Good all purpose 0 to 300°F (-20 to 150°C) Higher Resistivity
E3	103	200 to 600	-100 to 1000	1000	25.0	440	0.295	TM3	Good all purpose 200° to 600°F (93° to 316°C)
E4	86	250 to 700	-100 to 1000	1000	25.0	400	0.296	TM4	Best all purpose 250° to 70°F (120° to 370°C)
E5	64	300 to 800	-100 to 1000	1000	25.5	350	0.297	TM5	Best all purpose 300° to 800°F (150° to 425°C)
E70R20	117	100 to 550	-100 to 700	700	23.0	70	0.298	-	Low Electrical Resistivity and Medium Flexivity
F20R	131	0 to 300	-100 to 500	700	20.0	20	0.309	TM24	Low Electrical Resistivity and Medium Flexivity
F25R	135	0 to 300	-100 to 500	700	22.0	25	0.307	-	Low Electrical Resistivity and Medium Flexivity
F30R	140	0 to 300	-100 to 500	700	23.0	30	0.305	TM25	Low Electrical Resistivity and Medium Flexivity
F35R	143	0 to 300	-100 to 500	700	23.5	35	0.303	--	Low Electrical Resistivity and Medium Flexivity
F40R	144	0 to 300	-100 to 500	700	24.0	40	0.302	--	Low Electrical Resistivity and Medium Flexivity
F50R	147	0 to 300	-100 to 500	700	24.0	50	0.300	TM26	Low Electrical Resistivity and Medium Flexivity
F60R	145	0 to 300	-100 to 500	700	24.5	60	0.300	--	Low Electrical Resistivity and Medium Flexivity

* FLEXIVITY TEST TEMPERATURE RANGE 100°F TO 300°F

**FLEXIVITY TEST TEMPERATURE RANGE 68°F TO 266°F

Truflex Type	ASTM Flexivity $F \times 10^{-7}$	Maximum sensitivity temperature range °F	Useful deflection temperature range °F	Recommended maximum temp °F	Modulus of elast. E, lbs/sq.in by 10^6	Resistivity at 75°F ohms cm/ft.	Density lb./cu.in.	ASTM type	Remarks
	50° - 200° F temp range								
F70R	147	0 to 300	-100 to 500	700	24.5	70	0.299	TM27	Low Electrical Resistivity and Medium Flexivity
F90R	148	0 to 300	-100 to 500	700	25.0	90	0.298	TM28	Low Electrical Resistivity and Medium Flexivity
F100R	149	0 to 300	-100 to 500	700	25.0	100	0.297	--	Intermediate Electrical Resistivity and Medium Flexivity
F125R	148	0 to 300	-100 to 500	700	25.0	125	0.297	--	Intermediate Electrical Resistivity and Medium Flexivity
F55R20	130	100 to 500	-100 to 700	700	22.0	54	0.300	--	Low Electrical Resistivity and Medium Flexivity
G7	61	0 to 800	-100 to 1000	1000	27.5	440	0.280	--	Linear flexivity 0-800°F
GB2	128	100 to 550	-100 to 1000	1000	26.0	445	0.295	--	General purpose 100° to 550°F (38° to 260°C). Good High Temperature Stability
GB5	75	300 to 800	-100 to 1000	1000	26.0	342	0.296	--	General purpose 300° to 800°F (150° to 425°C). Higher Flexivity than E5.
GB14	100	0 to 300	-100 to 1000	1000	26.0	511	0.294	--	Good corrosion resistance in aqueous environments
J1	134	0 to 300	-100 to 500	625	19.0	110	0.310	--	Low temperature only
J7	56	0 to 500	-100 to 500	625	22.0	106	0.300	--	Best corrosion resistance
LA1	158	0 to 300	-100 to 700	1000	25.0	475	0.292	TM29	Good all purpose 0-300°F
LA20R10*	140	0 to 300	-100 to 500	700	19.0	20	0.309	--	Low electrical resistivity with medium flexivity
LA35R10	150	0 to 300	-100 to 500	700	21.0	35	0.301	--	Low electrical resistivity with medium flexivity
LA50R10*	151	0 to 300	-100 to 500	700	22.5	50	0.298	--	Low electrical resistivity with medium flexivity
LA70R10*	153	0 to 300	-100 to 500	700	23.0	70	0.297	--	Low electrical resistivity with medium flexivity
LA90R10	159	0 to 300	-100 to 500	700	23.0	90	0.296	--	Low electrical resistivity with medium flexivity
LA100R10**	157	0 to 300	-100 to 500	700	23.0	102	0.294	--	Low electrical resistivity with medium flexivity
LA115R10**	159	0 to 300	-100 to 500	700	23.5	115	0.294	--	Intermediate electrical resistivity with medium flexivity
LA125R10*	140	0 to 300	-100 to 500	500	23.0	125	0.296	--	Intermediate electrical resistivity with medium flexivity
LA125R*	150	0 to 300	-100 to 700	1000	26.0	125	0.302	--	Intermediate electrical resistivity with medium flexivity
LA150R**	145	0 to 300	-100 to 700	1000	25.5	150	0.299	--	Intermediate electrical resistivity with medium flexivity
LA180R**	146	0 to 300	-100 to 700	1000	25.0	180	0.297	--	Intermediate electrical resistivity with medium flexivity
LA210R*	153	0 to 300	-100 to 700	1000	25.0	210	0.296	--	Intermediate electrical resistivity with medium flexivity
LA300R*	156	0 to 300	-100 to 700	1000	24.5	300	0.294	--	Intermediate electrical resistivity with medium flexivity
LA330R**	162	0 to 300	-100 to 700	1000	24.5	330	0.293	--	Intermediate electrical resistivity with medium flexivity
LA35R11	139	150 to 450	-100 to 650	700	23.0	36	0.301	--	Low electrical resistivity with medium flexivity
LA55R20	139	100 to 500	-100 to 700	700	22.0	54	0.297	--	Low electrical resistivity with medium flexivity
LA3**	125	200 to 600	-100 to 800	1000	24.0	417	0.292	--	Medium electrical resistivity with medium flexivity
LA55R30	120	200 to 550	-100 to 700	700	22.0	54	0.298	--	Low electrical resistivity with medium flexivity
M7	40	0 to 800	-100 to 1000	1000	27.5	435	0.290	--	High corrosion resistance
N1	102	0 to 300	-100 to 500	1000	26.0	95	0.310	TM22	Low resistivity and flexivity
P30R	189	0 to 400	-100 to 500	700	19.0	30	0.296	TM31	Low electrical resistivity with high flexivity
P35R	200	0 to 400	-100 to 500	700	19.0	35	0.291	--	Low electrical resistivity with high flexivity
P50R	208	0 to 400	-100 to 500	700	19.0	50	0.286	TM33	Low electrical resistivity with high flexivity
P70R	214	0 to 400	-100 to 500	700	19.0	70	0.283	TM34	Low Resistivity, High Flexivity, General use 0 to 400°F (-20 to 200°C)

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**FLEXIVITY TEST TEMPERATURE RANGE 68°F TO 266°F

Truflex Type	ASTM Flexivity F x 10 ⁻⁷	Maximum sensitivity temperature range °F	Useful deflection temperature range °F	Recommended maximum temp °F	Modulus of elast. E, lbs/sq.in by 10 ⁶	Resistivity at 75°F ohms cm/ft.	Density lb./cu.in.	ASTM type	Remarks
	50° - 200° F temp range								
P90R*	204	0 to 400	-100 to 500	700	19.0	90	0.281	--	Low Resistivity, High Flexivity, General Use 0 to 400°F (-20 to 200°C)
P100R	216	0 to 400	-100 to 500	700	19.0	100	0.282	--	Low Resistivity, High Flexivity, General Use 0 to 400°F (-20 to 200°C)
P125R*	209	0 to 400	-100 to 500	700	19.0	125	0.28	--	Intermediate Resistivity, High Flexivity, General Use 0 to 400°F (-20 to 200°C)
P150R	216	0 to 400	-100 to 500	800	19.0	150	0.279	TM32	Intermediate Resistivity, High Flexivity, General Use 0 to 400°F (-20 to 200°C)
P175R*	209	0 to 400	-100 to 500	500	19.0	175	0.278	--	Intermediate Resistivity, High Flexivity, General Use 0 to 400°F (-20 to 200°C)
P250R*	209	0 to 400	-100 to 500	500	19.0	250	0.279	--	Intermediate Resistivity, High Flexivity, General Use 0 to 400°F (-20 to 200°C)
P300R	208	0 to 400	-100 to 500	800	20.0	300	0.277	--	Intermediate Resistivity, High Flexivity, General Use 0 to 400°F (-20 to 200°C)
P350R	213	0 to 400	-100 to 500	800	20.0	350	0.276	--	Intermediate Resistivity, High Flexivity, General Use 0 to 400°F (-20 to 200°C)
P500R	202	0 to 400	-100 to 500	800	21.0	500	0.281	--	High Resistivity, High Flexivity General Use 0 to 400°F (-20 to 200°C)
P675R	217	0 to 400	-100 to 500	800	19.0	675	0.275	TM2	*** Most active material available
P850R	156	0 to 400	-100 to 500	800	19.5	850	0.267	TM8	Highest Resistivity
P30RC	188	0 to 400	-100 to 500	700	19.0	30	0.295	--	Low electrical resistivity with high flexivity. Copper outer layer for brazeability or weldability
P3	182	200 to 600	-100 to 600	800	19.0	565	0.276	TM23	Uniform flexivity increase with increasing temperature
PJ	75	0 to 600	-100 to 625	625	17.0	120	0.300	--	Non-magnetic-both sides
S363	115	0 to 300	-100 to 700	1000	25.0	475	0.292	--	Good corrosion resistance in aqueous environments
SB175R	125	0 to 300	-100 to 700	1000	26.0	175	0.291	--	Intermediate electrical resistivity with medium flexivity
SB250R	144	0 to 300	-100 to 700	1000	25.5	250	0.293	--	Intermediate electrical resistivity with medium flexivity
SB300R	146	0 to 300	-100 to 700	1000	25.0	300	0.294	--	Intermediate electrical resistivity with medium flexivity
1513	-21	500 to 800	225 to 1000	1000	23.0	395	0.290	--	Reverses motion direction at 225°F

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**FLEXIVITY TEST TEMPERATURE RANGE 68°F TO 266°F

