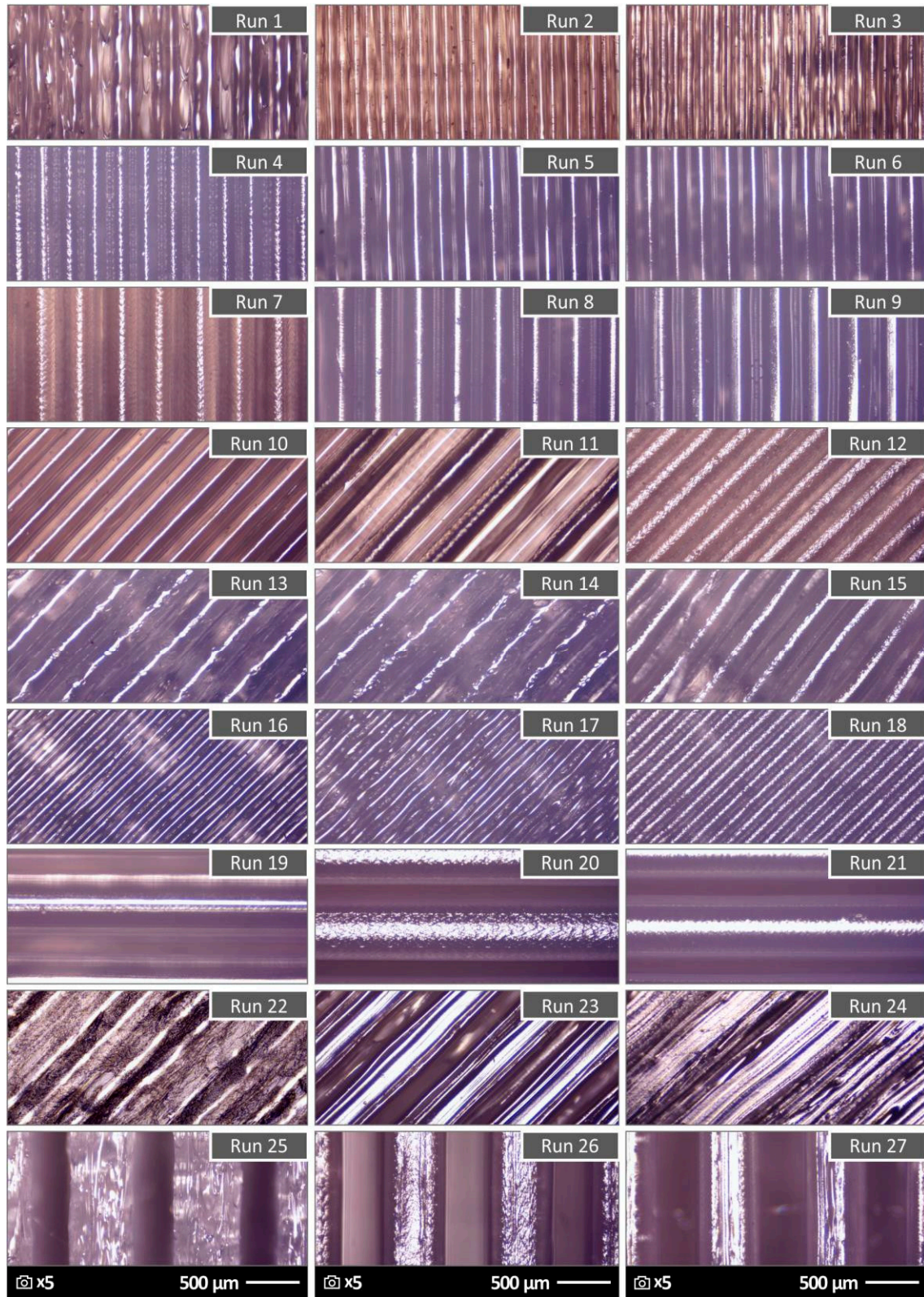


Figure S1. Ishikawa (fishbone) diagram showing the various variables influencing the energy/power consumption and the compressive response of the 3D printed items.

Results

Specimens' morphological characteristics examination



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Figure S2. Optical stereoscope image of one randomly selected specimen from each run.

Experimental results and Taguchi design

Table S1. Measured weight, compressive strength, compressive modulus of elasticity and compressive Toughness for each experimental run and five replicas per run

A/A	Run	Weight (g)	sB (MPa)	E (MPa)	Toughness (MJ/m ³)
1	1	5.75	12.01	211.82	1.31
2		5.67	8.31	185.27	1.04
3		5.75	12.86	244.73	1.38
4		5.51	12.97	241.49	1.49
5		5.43	12.17	240.60	1.31
6	2	5.59	13.63	231.87	1.65
7		5.59	14.45	221.80	1.69
8		5.42	15.77	220.47	1.87
9		5.51	14.20	223.56	1.52
10		5.34	14.03	224.38	1.68
11	3	5.43	18.95	272.78	2.24
12		5.51	18.80	254.56	2.16
13		5.59	18.56	268.67	2.23
14		5.51	17.26	256.56	2.20
15		5.59	17.36	241.49	2.01
16	4	6.93	13.66	254.42	1.25
17		6.72	13.16	247.89	1.41
18		6.91	14.53	259.51	1.48
19		6.62	13.94	248.98	1.36
20		6.53	12.84	238.18	1.51
21	5	6.35	25.83	339.13	3.17
22		6.18	21.87	317.00	2.54
23		6.52	19.36	266.02	2.07
24		6.27	21.26	277.27	2.36
25		6.43	20.77	304.47	2.60
26	6	6.57	24.38	256.80	3.13
27		6.41	25.22	246.33	3.47
28		6.49	23.50	251.96	3.13
29		6.17	25.80	233.29	3.24
30		6.25	21.68	231.13	2.80
31	7	6.80	24.66	276.47	2.22
32		6.89	28.26	334.49	2.93
33		6.64	20.87	273.20	2.38
34		6.72	29.90	280.02	2.88
35		6.15	29.95	268.44	3.58
36	8	8.55	26.33	260.73	3.45
37		8.65	33.64	354.58	4.56
38		8.86	35.64	336.80	4.60
39		8.15	27.95	299.00	2.35
40		7.84	35.24	341.71	4.62
41	9	8.50	30.95	270.44	3.87
42		8.40	32.11	249.80	3.96
43		8.20	29.39	270.27	3.84

44		8.40	29.40	265.40	3.86
45		8.30	29.71	251.78	3.75
46		8.04	31.03	264.44	4.14
47		8.13	33.32	321.58	4.24
48	10	8.04	31.17	294.02	4.08
49		8.32	32.60	275.89	4.26
50		8.22	29.41	249.09	3.69
51		6.44	34.86	309.80	4.58
52		6.30	34.90	309.71	4.75
53	11	6.37	34.19	284.00	4.41
54		6.37	34.34	289.56	4.34
55		6.51	34.15	260.44	4.63
56		8.00	25.89	193.18	3.64
57		8.00	21.45	224.16	2.74
58	12	8.10	23.13	224.16	3.20
59		8.10	23.89	250.29	3.16
60		7.81	19.69	255.60	2.94
61		5.50	8.86	54.24	1.27
62		5.50	10.44	77.73	1.40
63	13	5.58	10.04	72.07	1.34
64		5.50	10.76	61.49	1.41
65		5.58	9.86	66.91	1.32
66		5.42	11.21	79.09	1.49
67		5.59	11.25	77.49	1.48
68	14	5.25	9.53	74.20	1.34
69		5.51	10.32	77.20	1.51
70		5.42	9.62	76.82	1.39
71		5.89	2.15	27.18	0.13
72		5.40	2.42	18.09	0.19
73	15	6.63	6.39	48.76	0.82
74		5.40	2.61	32.69	0.34
75		5.28	1.64	14.20	0.15
76		6.83	16.29	113.73	1.97
77		6.83	18.29	151.60	2.36
78	16	7.29	16.49	142.02	2.18
79		7.76	16.59	120.82	1.98
80		7.51	18.32	114.09	2.29
81		6.87	17.10	135.44	2.04
82		7.14	17.89	148.13	2.34
83	17	7.22	17.95	160.42	2.37
84		7.14	16.52	151.00	2.19
85		7.14	18.54	134.00	2.30
86		6.98	11.66	118.84	1.60
87	18	6.98	15.32	109.24	1.90

88		6.58	11.36	100.60	1.58
89		6.88	13.56	78.38	1.65
90		6.78	10.39	90.02	1.46
91		6.40	0.47	3.78	0.06
92		6.02	0.55	45.33	0.05
93	19	5.90	0.34	39.09	0.05
94		6.78	0.79	84.60	0.08
95		5.40	0.72	89.49	0.08
96		6.07	3.46	159.60	0.48
97		5.81	12.72	316.82	1.12
98	20	6.07	5.94	235.11	0.63
99		6.07	1.96	70.56	0.23
100		6.07	2.39	85.56	0.29
101		6.29	0.69	32.20	0.10
102		6.50	1.02	53.80	0.15
103	21	6.29	1.28	41.96	0.20
104		6.09	2.09	129.64	0.17
105		5.78	1.12	43.73	0.15
106		7.85	36.18	373.40	4.83
107		7.76	37.27	326.38	5.05
108	22	7.47	38.53	366.20	4.91
109		7.51	33.65	261.27	4.51
110		7.59	39.30	278.18	5.22
111		7.39	25.45	313.47	3.41
112		7.03	17.19	175.73	2.29
113	23	7.03	17.08	202.98	2.30
114		7.03	14.82	164.00	1.94
115		7.12	15.81	178.40	2.08
116		8.11	22.04	318.49	2.51
117		8.01	28.55	353.18	3.63
118	24	8.48	33.07	356.69	4.38
119		8.20	23.99	278.49	2.99
120		8.11	27.22	311.58	3.49
121		5.61	4.55	71.53	0.60
122		5.61	7.61	73.24	1.09
123	25	5.70	6.08	67.42	0.88
124		5.61	5.92	59.89	0.86
125		5.70	5.36	62.56	0.79
126		5.22	9.59	75.20	1.19
127		5.30	13.23	115.18	1.68
128	26	5.14	8.60	69.16	1.06
129		5.22	9.14	91.42	1.27
130		5.22	9.09	82.80	1.27
131	27	5.53	14.13	119.64	1.95

132		5.44	12.00	121.84	1.72
133		5.53	8.50	84.93	1.14
134		5.66	11.48	88.71	1.53
135		5.44	12.98	126.07	1.74
Min:		5.14	0.34	3.78	0.05
Max:		8.86	39.30	373.40	5.22
Average:		6.58	17.37	189.46	2.18

Table S2. Measured for Printing Time, EPC, SPE, SPP for each experimental run and five replicas per run.

A/A	Run	Printing Time (s)	EPC (MJ)	SPE (MJ/g)	SPP (kW/g)
1	1	8820	0.922	0.160	0.018
2		8673	0.947	0.167	0.019
3		8518	0.997	0.173	0.020
4		9162	0.900	0.163	0.018
5		8602	0.911	0.168	0.019
6	2	3981	0.713	0.128	0.032
7		3712	0.695	0.124	0.033
8		3917	0.756	0.139	0.036
9		4034	0.742	0.135	0.033
10		4181	0.691	0.129	0.031
11	3	3027	0.738	0.136	0.045
12		3115	0.745	0.135	0.043
13		3289	0.724	0.129	0.039
14		3325	0.662	0.120	0.036
15		2970	0.695	0.124	0.042
16	4	3457	0.770	0.111	0.032
17		3266	0.824	0.123	0.038
18		3457	0.713	0.103	0.030
19		3665	0.846	0.128	0.035
20		3655	0.781	0.120	0.033
21	5	2486	0.432	0.068	0.027
22		2695	0.461	0.075	0.028
23		2697	0.457	0.070	0.026
24		2580	0.407	0.065	0.025
25		2642	0.396	0.062	0.023
26	6	2174	0.475	0.072	0.033
27		1927	0.457	0.071	0.037
28		2057	0.482	0.074	0.036
29		2015	0.457	0.074	0.037
30		2027	0.464	0.074	0.037
31	7	3656	0.461	0.068	0.019
32		3836	0.518	0.075	0.020
33		3821	0.450	0.068	0.018

34		3844	0.454	0.068	0.018
35		3718	0.457	0.074	0.020
36		1911	0.403	0.047	0.025
37		2023	0.342	0.040	0.020
38	8	2015	0.356	0.040	0.020
39		1881	0.349	0.043	0.023
40		1920	0.346	0.044	0.023
41		1469	0.374	0.044	0.030
42		1453	0.364	0.043	0.030
43	9	1463	0.342	0.042	0.029
44		1365	0.349	0.042	0.030
45		1400	0.374	0.045	0.032
46		6528	1.562	0.194	0.030
47		7163	1.674	0.206	0.029
48	10	7159	1.598	0.199	0.028
49		7486	1.602	0.193	0.026
50		6814	1.480	0.180	0.026
51		4612	0.482	0.075	0.016
52		4758	0.526	0.083	0.018
53	11	4795	0.554	0.087	0.018
54		4409	0.472	0.074	0.017
55		4503	0.486	0.075	0.017
56		3403	0.601	0.075	0.022
57		3443	0.551	0.069	0.020
58	12	3042	0.605	0.075	0.025
59		3056	0.598	0.074	0.024
60		3456	0.526	0.067	0.019
61		3988	0.835	0.152	0.038
62		4151	0.965	0.175	0.042
63	13	3992	0.875	0.157	0.039
64		4589	0.868	0.158	0.034
65		4055	0.961	0.172	0.042
66		2327	0.238	0.044	0.019
67		2457	0.248	0.044	0.018
68	14	2377	0.274	0.052	0.022
69		2420	0.238	0.043	0.018
70		2319	0.263	0.048	0.021
71		2035	0.342	0.058	0.029
72		1889	0.331	0.061	0.032
73	15	1833	0.331	0.050	0.027
74		1922	0.302	0.056	0.029
75		1896	0.310	0.059	0.031
76		11368	1.789	0.262	0.023
77	16	10072	1.876	0.275	0.027

78		11359	1.832	0.251	0.022
79		10908	1.850	0.238	0.022
80		11193	1.674	0.223	0.020
81		8170	0.972	0.141	0.017
82		7697	1.087	0.152	0.020
83	17	7621	0.997	0.138	0.018
84		7817	1.008	0.141	0.018
85		7394	0.979	0.137	0.019
86		5850	0.983	0.141	0.024
87		5752	1.048	0.150	0.026
88	18	5975	1.105	0.168	0.028
89		6027	0.979	0.142	0.024
90		6246	1.145	0.169	0.027
91		2524	0.436	0.068	0.027
92		2772	0.385	0.064	0.023
93	19	2719	0.364	0.062	0.023
94		2488	0.410	0.061	0.024
95		2757	0.385	0.071	0.026
96		1324	0.270	0.044	0.034
97		1288	0.274	0.047	0.037
98	20	1317	0.306	0.050	0.038
99		1367	0.274	0.045	0.033
100		1429	0.317	0.052	0.037
101		1006	0.144	0.023	0.023
102		1061	0.158	0.024	0.023
103	21	993	0.144	0.023	0.023
104		975	0.137	0.022	0.023
105		1065	0.137	0.024	0.022
106		9564	1.411	0.180	0.019
107		9854	1.220	0.157	0.016
108	22	10022	1.390	0.186	0.019
109		10516	1.177	0.157	0.015
110		10195	1.303	0.172	0.017
111		5150	0.932	0.126	0.024
112		5398	0.965	0.137	0.025
113	23	5443	0.994	0.141	0.026
114		5328	1.004	0.143	0.027
115		4971	0.965	0.136	0.027
116		3816	0.454	0.056	0.015
117		4120	0.432	0.054	0.013
118	24	3776	0.450	0.053	0.014
119		3753	0.511	0.062	0.017
120		4091	0.493	0.061	0.015
121	25	3377	0.508	0.090	0.027

122		3522	0.493	0.088	0.025
123		3151	0.464	0.081	0.026
124		3353	0.544	0.097	0.029
125		3397	0.511	0.090	0.026
126		1938	0.335	0.064	0.033
127		1825	0.360	0.068	0.037
128	26	1743	0.364	0.071	0.041
129		1741	0.378	0.072	0.042
130		1878	0.364	0.070	0.037
131		1329	0.176	0.032	0.024
132		1522	0.173	0.032	0.021
133	27	1344	0.180	0.033	0.024
134		1322	0.187	0.033	0.025
135		1382	0.184	0.034	0.024
Min:		975.00	0.137	0.022	0.013
Max:		11368.00	1.876	0.275	0.045
Average:		4075.06	0.661	0.100	0.026

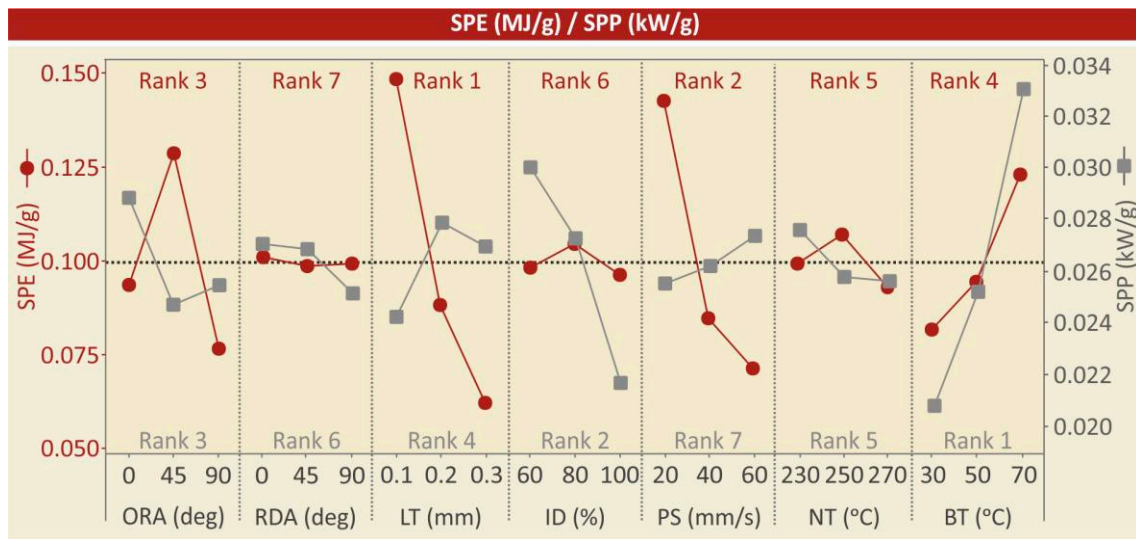


Figure S3. MEP: SPE (MJ/g) and SPP (kW/g).

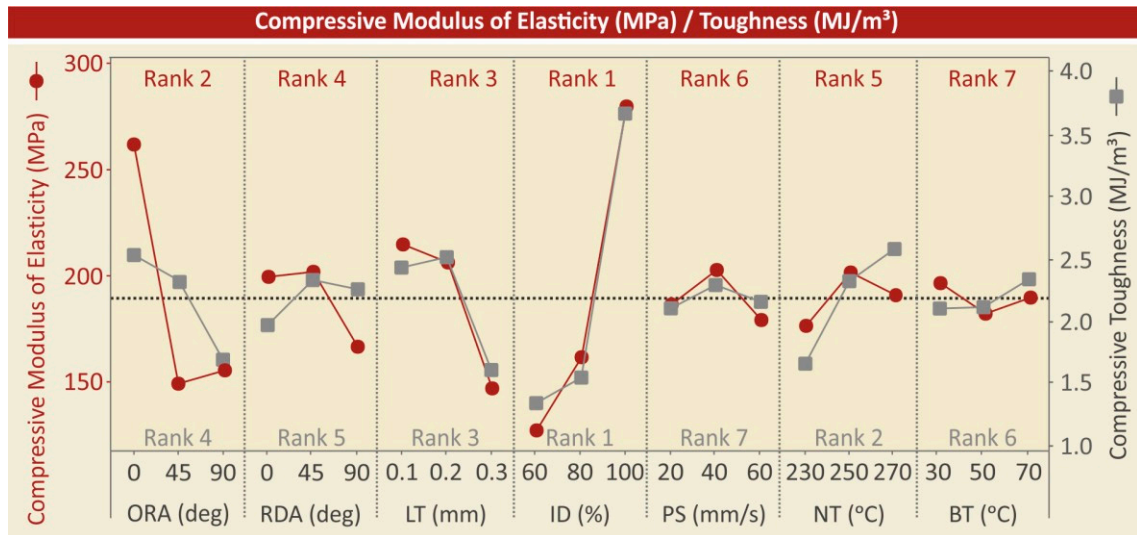


Figure S4. MEP: Compression modulus of elasticity (Mpa) and Toughness (MJ/m³).

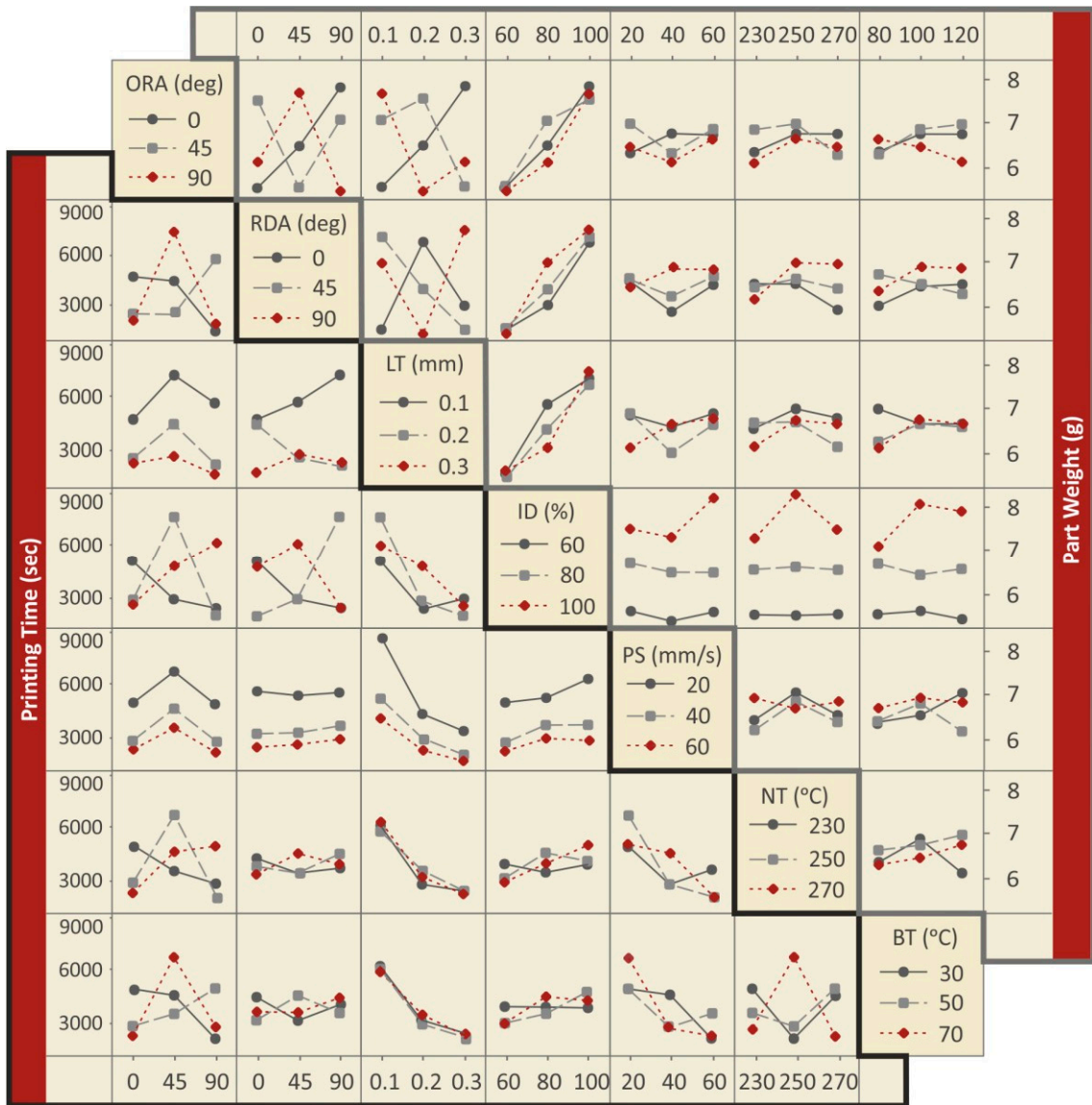


Figure S5. Interaction plots: printing time (s), part weight (g).

Regression analysis

Table S3. Polynomial ANOVA, Weight vs ORA, RDA, LT, ID, PS, NT, BT.

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	14	117.480	8.39144	45.20	0.000
ORA	1	0.651	0.65061	3.50	0.064
RDA	1	0.182	0.18244	0.98	0.324
LT	1	0.787	0.78747	4.24	0.042
ID	1	0.271	0.27061	1.46	0.230
PS	1	1.908	1.90803	10.28	0.002
NT	1	2.959	2.95881	15.94	0.000
BT	1	1.025	1.02471	5.52	0.020
ORA ²	1	1.269	1.26896	6.83	0.010
RDA ²	1	0.007	0.00736	0.04	0.842
LT ²	1	0.515	0.51483	2.77	0.098
ID ²	1	0.043	0.04332	0.23	0.630
PS ²	1	2.258	2.25776	12.16	0.001
NT ²	1	2.933	2.93281	15.80	0.000
BT ²	1	0.837	0.83667	4.51	0.036
Error	120	22.280	0.18566		
Total	134	139.760	8.57710		
R ²	84.06%				
R ² (adj)	82.20%				
R ² (pred)	79.82%				

Table S4. Polynomial ANOVA, Printing Time vs ORA, RDA, LT, ID, PS, NT, BT.

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	14	883161179	63082941	96.61	0.000
ORA	1	98626233	98626233	151.04	0.000
RDA	1	143867	143867	0.22	0.640
LT	1	86374971	86374971	132.27	0.000
ID	1	2188019	2188019	3.35	0.070
PS	1	45789886	45789886	70.12	0.000
NT	1	107380	107380	0.16	0.686
BT	1	702929	702929	1.08	0.302
ORA ²	1	108103756	108103756	165.55	0.000
RDA ²	1	625156	625156	0.96	0.330
LT ²	1	41129424	41129424	62.99	0.000
ID ²	1	1182597	1182597	1.81	0.181
PS ²	1	20644873	20644873	31.62	0.000
NT ²	1	93782	93782	0.14	0.705
BT ²	1	725926	725926	1.11	0.294
Error	120	78359519	652996		

Total	134	961520698	63735937
R ²	91.85%		
R ² (adj)	90.90%		
R ² (pred)	89.69%		

Table S5. Polynomial ANOVA, sB vs ORA, RDA, LT, ID, PS, NT, BT.

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	14	13000.4	928.60	67.08	0.000
ORA	1	68.8	68.81	4.97	0.028
RDA	1	122.8	122.85	8.87	0.004
LT	1	188.7	188.68	13.63	0.000
ID	1	1046.7	1046.71	75.61	0.000
PS	1	42.3	42.26	3.05	0.083
NT	1	103.6	103.55	7.48	0.007
BT	1	28.2	28.18	2.04	0.156
ORA ²	1	8.4	8.44	0.61	0.436
RDA ²	1	63.3	63.31	4.57	0.035
LT ²	1	324.1	324.13	23.41	0.000
ID ²	1	1496.6	1496.62	108.11	0.000
PS ²	1	46.4	46.42	3.35	0.070
NT ²	1	90.4	90.45	6.53	0.012
BT ²	1	35.5	35.48	2.56	0.112
Error	120	1661.2	13.84		
Total	134	14661.6	942.44		
R ²	88.67%				
R ² (adj)	87.35%				
R ² (pred)	85.66%				

Table S6. Polynomial ANOVA, E vs ORA, RDA, LT, ID, PS, NT, BT.

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	14	1136526	81180	43.86	0.000
ORA	1	208165	208165	112.47	0.000
RDA	1	3128	3128	1.69	0.196
LT	1	8442	8442	4.56	0.035
ID	1	30988	30988	16.74	0.000
PS	1	10596	10596	5.72	0.018
NT	1	9808	9808	5.30	0.023
BT	1	3781	3781	2.04	0.156
ORA ²	1	107201	107201	57.92	0.000
RDA ²	1	10574	10574	5.71	0.018
LT ²	1	19362	19362	10.46	0.002

ID ²	1	52396	52396	28.31	0.000
PS ²	1	11853	11853	6.40	0.013
NT ²	1	9495	9495	5.13	0.025
BT ²	1	3397	3397	1.84	0.178
Error	120	222105	1851		
Total	134	1358631	83031		
R ²	83.65%				
R ² (adj)	81.75%				
R ² (pred)	79.31%				

Table S7. Polynomial ANOVA, Toughness vs ORA, RDA, LT, ID, PS, NT, BT.

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	14	216.739	15.4813	59.30	0.000
ORA	1	0.000	0.0000	0.00	0.989
RDA	1	2.272	2.2715	8.70	0.004
LT	1	4.482	4.4818	17.17	0.000
ID	1	19.635	19.6352	75.21	0.000
PS	1	0.829	0.8292	3.18	0.077
NT	1	1.524	1.5240	5.84	0.017
BT	1	0.177	0.1766	0.68	0.413
ORA ²	1	1.319	1.3186	5.05	0.026
RDA ²	1	1.346	1.3464	5.16	0.025
LT ²	1	7.318	7.3181	28.03	0.000
ID ²	1	27.481	27.4805	105.26	0.000
PS ²	1	0.772	0.7718	2.96	0.088
NT ²	1	1.284	1.2835	4.92	0.028
BT ²	1	0.303	0.3033	1.16	0.283
Error	120	31.330	0.2611		
Total	134	248.069	15.7424		
R ²	87.37%				
R ² (adj)	85.90%				
R ² (pred)	84.02%				

Table S8. Polynomial ANOVA, EPC vs ORA, RDA, LT, ID, PS, NT, BT.

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	14	21.9536	1.56812	168.97	0.000
ORA	1	2.9171	2.91709	314.32	0.000
RDA	1	0.0001	0.00010	0.01	0.918
LT	1	0.8441	0.84412	90.96	0.000
ID	1	0.2044	0.20439	22.02	0.000
PS	1	1.6568	1.65682	178.53	0.000
NT	1	0.3346	0.33457	36.05	0.000

BT	1	0.0102	0.01022	1.10	0.296
ORA ²	1	3.5089	3.50892	378.10	0.000
RDA ²	1	0.0022	0.00218	0.23	0.629
LT ²	1	0.2615	0.26148	28.18	0.000
ID ²	1	0.1509	0.15089	16.26	0.000
PS ²	1	0.9335	0.93351	100.59	0.000
NT ²	1	0.3384	0.33835	36.46	0.000
BT ²	1	0.0709	0.07086	7.64	0.007
Error	120	1.1137	0.00928		
Total	134	23.0673	1.57740		
R ²	95.17%				
R ² (adj)	94.61%				
R ² (pred)	93.89%				

Table S9. Polynomial ANOVA, SPE vs ORA, RDA, LT, ID, PS, NT, BT.

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	14	0.416232	0.029731	233.02	0.000
ORA	1	0.042727	0.042727	334.88	0.000
RDA	1	0.000087	0.000087	0.68	0.411
LT	1	0.022830	0.022830	178.94	0.000
ID	1	0.001534	0.001534	12.02	0.001
PS	1	0.028753	0.028753	225.36	0.000
NT	1	0.003484	0.003484	27.30	0.000
BT	1	0.000415	0.000415	3.25	0.074
ORA ²	1	0.056603	0.056603	443.63	0.000
RDA ²	1	0.000056	0.000056	0.44	0.508
LT ²	1	0.008741	0.008741	68.51	0.000
ID ²	1	0.001595	0.001595	12.50	0.001
PS ²	1	0.014962	0.014962	117.27	0.000
NT ²	1	0.003561	0.003561	27.91	0.000
BT ²	1	0.001860	0.001860	14.58	0.000
Error	120	0.015311	0.000128		
Total	134	0.431543	0.029859		
R ²	96.45%				
R ² (adj)	96.04%				
R ² (pred)	95.51%				

Table S10. Polynomial ANOVA, SPP vs ORA, RDA, LT, ID, PS, NT, BT.

Source	DF	Adj SS	Adj MS	F-Value	P-Value
Regression	14	0.006052	0.000432	34.29	0.000
ORA	1	0.000298	0.000298	23.62	0.000
RDA	1	0.000002	0.000002	0.19	0.663
LT	1	0.000196	0.000196	15.54	0.000
ID	1	0.000024	0.000024	1.86	0.175
PS	1	0.000000	0.000000	0.00	0.995
NT	1	0.000022	0.000022	1.73	0.191
BT	1	0.000007	0.000007	0.55	0.460
ORA ²	1	0.000177	0.000177	14.05	0.000
RDA ²	1	0.000018	0.000018	1.40	0.240
LT ²	1	0.000151	0.000151	11.97	0.001
ID ²	1	0.000059	0.000059	4.70	0.032
PS ²	1	0.000002	0.000002	0.13	0.714
NT ²	1	0.000020	0.000020	1.57	0.212
BT ²	1	0.000087	0.000087	6.87	0.010
Error	120	0.001513	0.000013		
Total	134	0.007565	0.000445		
R ²	80.00%				
R ² (adj)	77.67%				
R ² (pred)	74.69%				

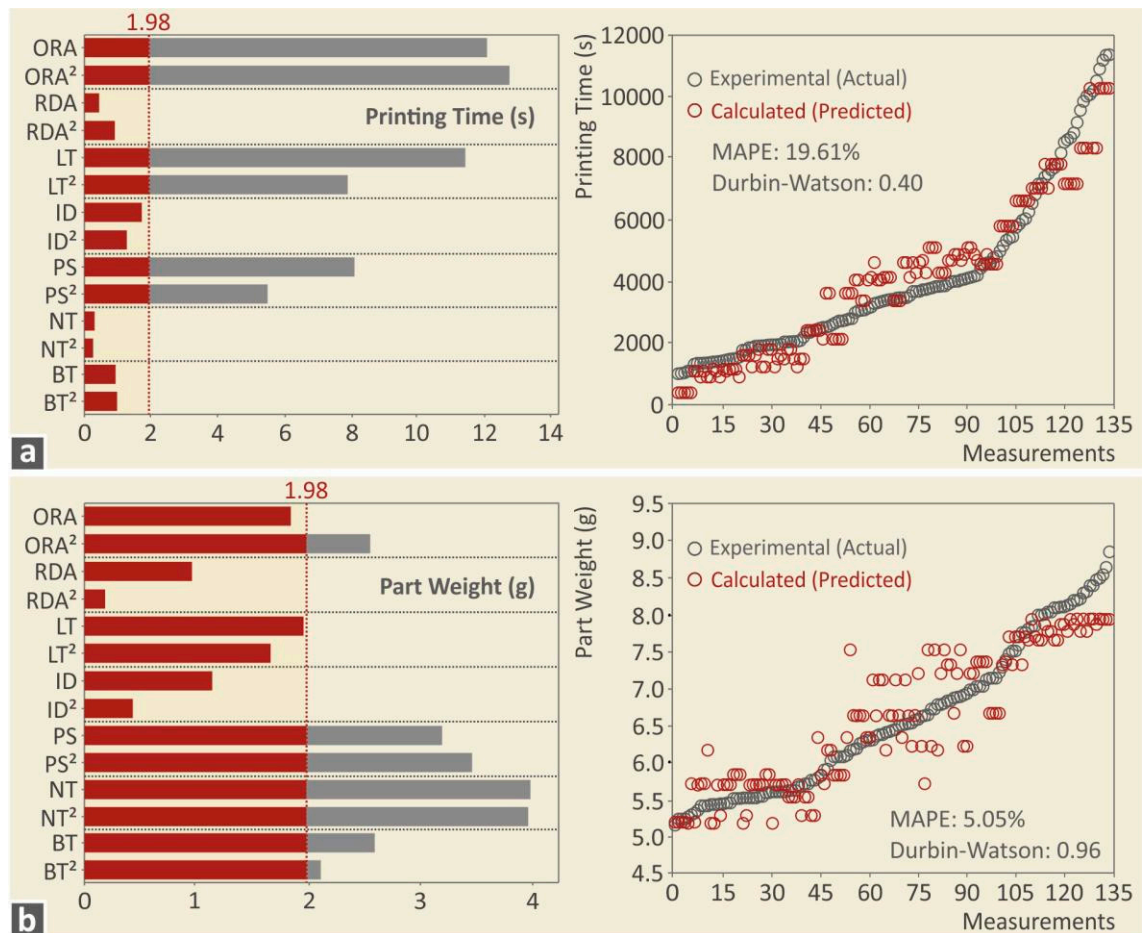


Figure S6. Pareto charts and experimental vs calculated values graph: (a) printing time (s), (b) part weight (g).

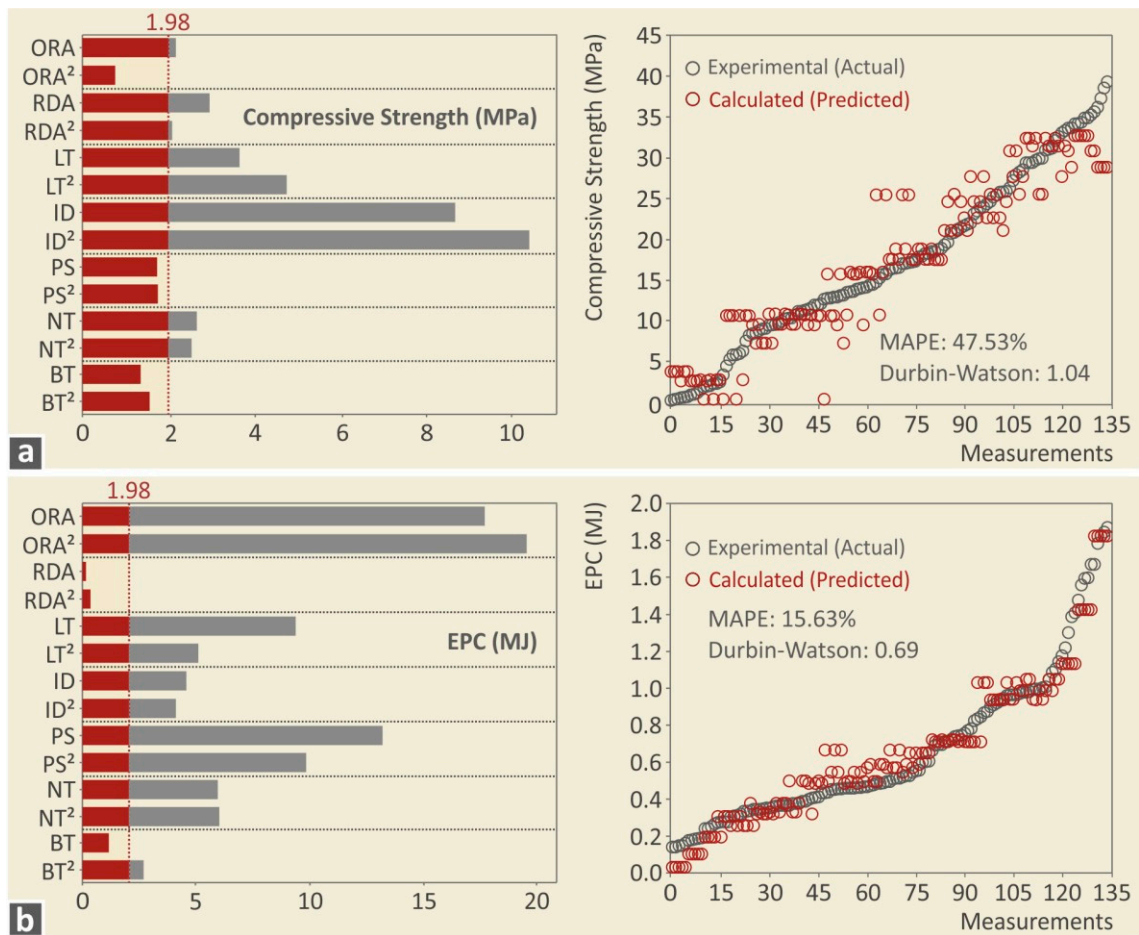


Figure S7. Pareto charts and experimental vs calculated values graph: (a) compressive strength (MPa), (b) EPC (MJ).

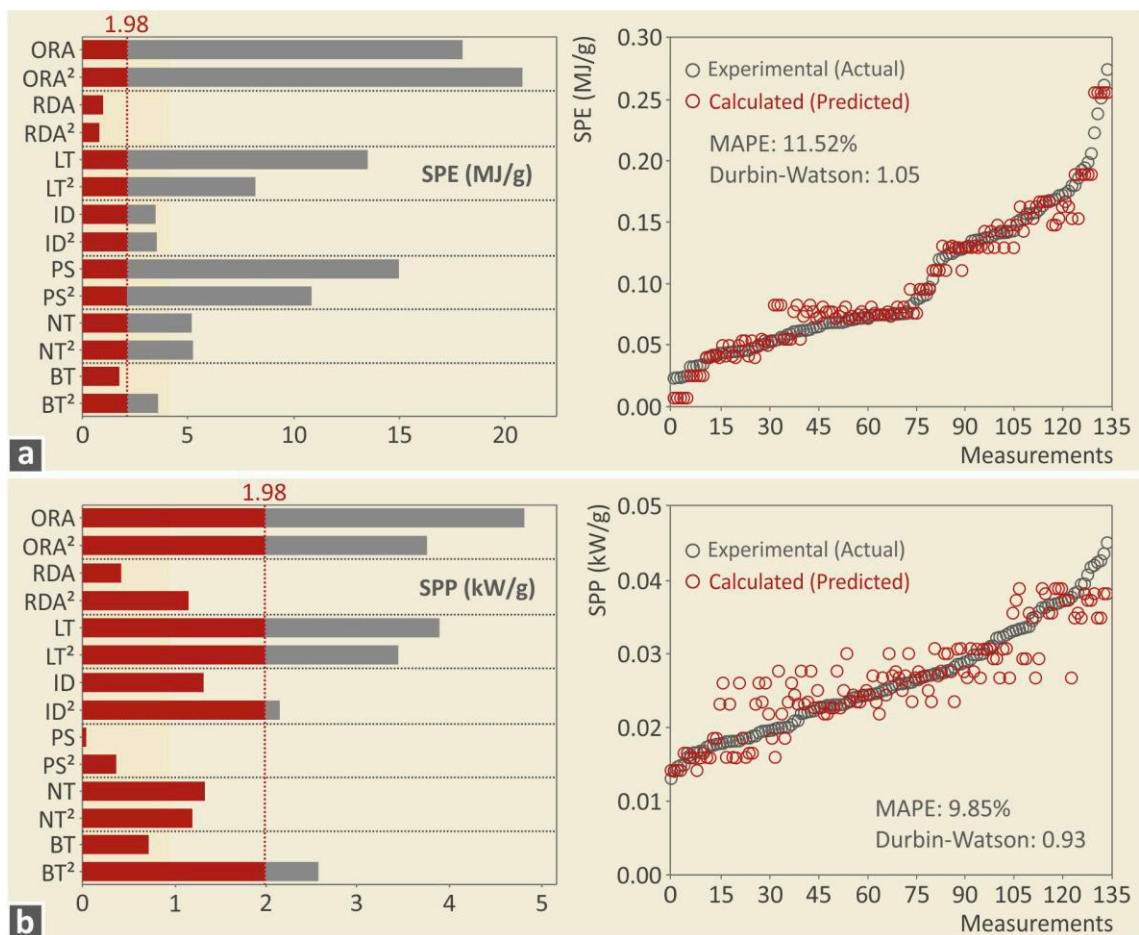


Figure S8. Pareto charts and experimental vs calculated values graph: (a) SPE (MJ/g), (b) SPP (kW/g).

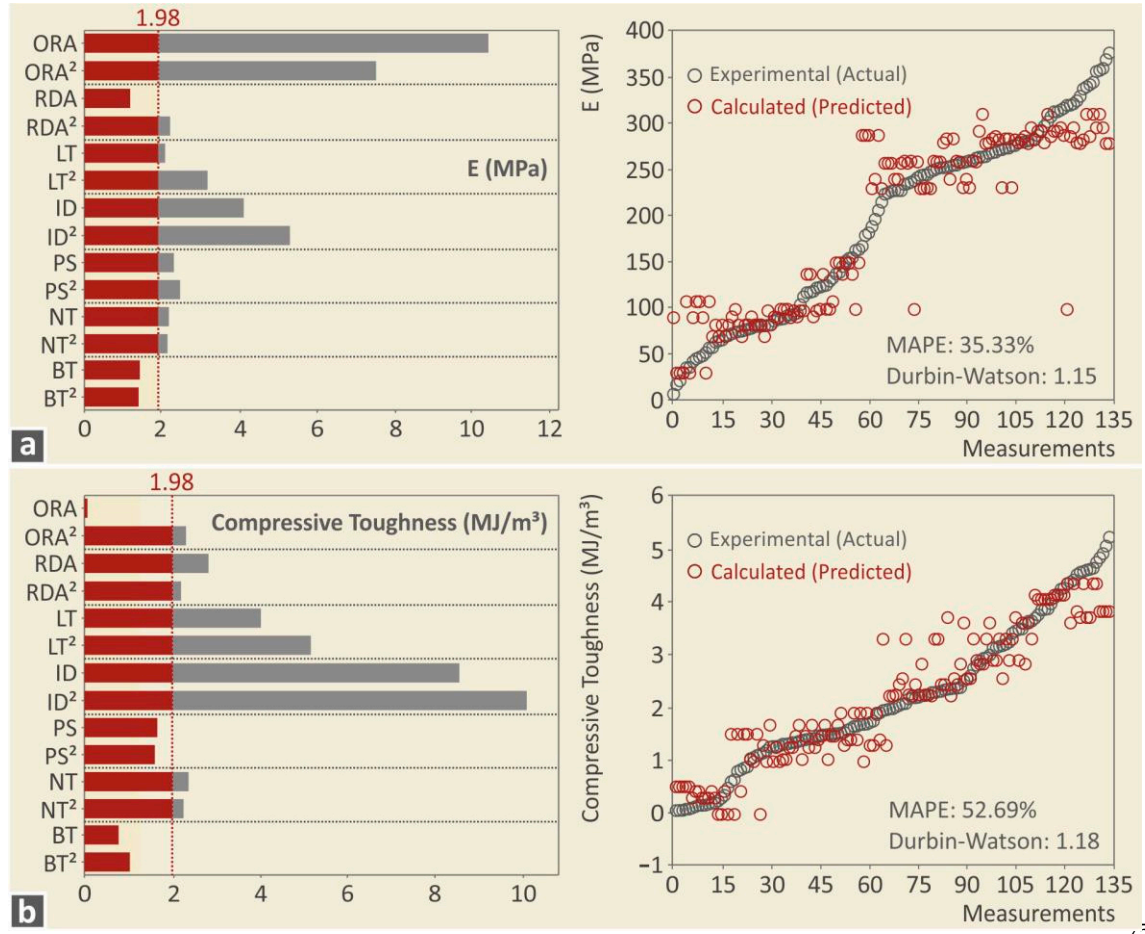


Figure S9. Pareto charts and experimental vs calculated values graph: (a) compressive modulus of elasticity (MPa), (b) compressive toughness (MJ/m³).

Confirmation

Table S11. Measured Weight, Compressive Strength, Compressive Modulus of Elasticity and Compressive Toughness for each experimental run and five replicas per run for the Confirmation Runs.

A/A	Run	Weight (g)	sB (MPa)	E (MPa)	Toughness (MJ/m³)
1	28	7.17	39.20	431.73	4.86
2		6.82	36.06	405.83	5.03
3		7.07	35.61	443.83	4.91
4		7.25	38.01	435.60	5.21
5		7.31	35.84	395.92	5.30
6	29	5.15	3.19	63.71	0.63
7		5.30	2.77	71.76	0.57
8		5.45	2.91	68.27	0.54
9		5.48	4.18	68.65	0.53
10		5.20	3.26	63.51	0.56

Min:	5.15	2.77	63.51	0.53
Max:	7.31	39.20	443.83	5.30
Average:	6.22	20.10	244.88	2.81

Table S12. Measured Printing Time, EPC, SPE, SPP for each experimental run and five replicas per run for the Confirmation Runs.

A/A	Run	Printing Time (s)	EPC (MJ)	SPE (MJ/g)	SPP (kW/g)
1	28	4917	0.832	0.126	0.024
2		4528	0.742	0.119	0.024
3		4865	0.767	0.119	0.022
4		4796	0.806	0.121	0.023
5		4623	0.756	0.113	0.022
6	29	735	0.126	0.024	0.033
7		856	0.104	0.020	0.023
8		833	0.119	0.022	0.026
9		731	0.126	0.023	0.031
10		959	0.119	0.023	0.024
	Min:	731	0.104	0.020	0.022
	Max:	4917	0.832	0.126	0.033
	Average:	2784.30	0.450	0.071	0.025