Declaration of Performance

No. 202201-1081-US

Emmeline I 18in

Unique product code:	CI-EML1-465
Type, batch or serial number:	CI-EML1-465
Intended use of the construction product:	In heating systems in buildings
Manufacturer:	Castrads Ltd 1 Kenwood Road North Reddish SK5 6PH, Manchester, United Kingdom
Test standard:	EN 442-1:2014
Test laboratory:	BSRIA
Test report number:	104331/2

Declared performance

Essential characteristics	Performance	Reference standard
Reaction to fire	A1 — non-combustible	EN 442-1:2014
Release of dangerous substances	None	
Pressure tightness	No leakage at 1.3 × maximum working pressure (psi)	
Surface temperature	Maximum 248 °F	
Resistance to pressure	No breakage at 1.69 × maximum working pressure (psi) Maximum working pressure: 145 psi	
Rated thermal outputs	See appendix 1	
Thermal output in different operating conditions (characteristic curve)	$\varphi = Km \cdot \Delta T^{n}$. See appendix for factor Km and exponent n.	
Resistance against corrosion	No corrosion after 100h humidity	
Resistance against minor impact	Class 0	

Performance values are derived from testing to EN 442-1:2014 and are presented here in US customary units for the North American market. This document is a statement of manufacturer performance data; it is not issued under, and does not imply conformity with, any US regulatory or certification scheme.

Signed for and on behalf of the manufacturer by:
Nick Baylis
CEO
Syosset, England
27th August 2026

Castrads®

Appendix to DoP No. 202201-1081-US: Dimensions and thermal outputs

Panel dimensions: 18.3 in (465 mm) high when floor standing, 4.3 in (110 mm) deep, for all numbers of sections. See table for length.

SKU	Num of sec.	Length, in	Output (Hydronic, 170°F)	Output (Steam, 215°F)	EDR	Factor, Km	Exponent, n
CI-EML1-465-03	3	9.1	533	843	3.5	0.983	1.2554
CI-EML1-465-04	4	11.7	711	1,125	4.6	1.311	1.2554
CI-EML1-465-05	5	14.3	888	1,406	5.8	1.639	1.2554
CI-EML1-465-06	6	16.9	1,066	1,687	6.9	1.966	1.2554
CI-EML1-465-07	7	19.5	1,244	1,968	8.1	2.294	1.2554
CI-EML1-465-08	8	22.1	1,422	2,249	9.2	2.622	1.2554
CI-EML1-465-09	9	24.8	1,599	2,530	10.4	2.950	1.2554
CI-EML1-465-10	10	27.4	1,777	2,811	11.5	3.277	1.2554
CI-EML1-465-11	11	30	1,955	3,093	12.7	3.605	1.2554
CI-EML1-465-12	12	32.6	2,132	3,374	13.8	3.933	1.2554
CI-EML1-465-13	13	35.2	2,310	3,655	15.0	4.261	1.2554
CI-EML1-465-14	14	37.8	2,488	3,936	16.1	4.588	1.2554
CI-EML1-465-15	15	40.5	2,665	4,217	17.3	4.916	1.2554
CI-EML1-465-16	16	43.1	2,843	4,498	18.4	5.244	1.2554
CI-EML1-465-17	17	45.7	3,021	4,780	19.6	5.572	1.2554
CI-EML1-465-18	18	48.3	3,199	5,061	20.7	5.899	1.2554
CI-EML1-465-19	19	50.9	3,376	5,342	21.9	6.227	1.2554
CI-EML1-465-20	20	53.5	3,554	5,623	23.0	6.555	1.2554
CI-EML1-465-21	21	56.2	3,732	5,904	24.2	6.883	1.2554
CI-EML1-465-22	22	58.8	3,909	6,185	25.3	7.210	1.2554
CI-EML1-465-23	23	61.4	4,087	6,466	26.5	7.538	1.2554
CI-EML1-465-24	24	64	4,265	6,748	27.6	7.866	1.2554
CI-EML1-465-25	25	66.7	4,442	7,029	28.8	8.194	1.2554
CI-EML1-465-26	26	69.3	4,620	7,310	29.9	8.521	1.2554
CI-EML1-465-27	27	71.9	4,798	7,591	31.1	8.849	1.2554
CI-EML1-465-28	28	74.5	4,976	7,872	32.2	9.177	1.2554
CI-EML1-465-29	29	77.1	5,153	8,153	33.4	9.504	1.2554
CI-EML1-465-30	30	79.7	5,331	8,434	34.5	9.832	1.2554
CI-EML1-465-31	31	82.4	5,509	8,716	35.7	10.160	1.2554
CI-EML1-465-32	32	85	5,686	8,997	36.8	10.488	1.2554
CI-EML1-465-33	33	87.6	5,864	9,278	38.0	10.815	1.2554
CI-EML1-465-34	34	90.2	6,042	9,559	39.2	11.143	1.2554
CI-EML1-465-35	35	92.8	6,219	9,840	40.3	11.471	1.2554
CI-EML1-465-36	36	95.4	6,397	10,121	41.5	11.799	1.2554
CI-EML1-465-37	37	98.1	6,575	10,403	42.6	12.126	1.2554
CI-EML1-465-38	38	100.7	6,753	10,684	43.8	12.454	1.2554
CI-EML1-465-39	39	103.3	6,930	10,965	44.9	12.782	1.2554
CI-EML1-465-40	40	105.9	7,108	11,246	46.1	13.110	1.2554

Output (Hydronic, 170°F): BTU/h at 170°F mean water, 68°F room. **Output (Steam, 215°F):** BTU/h at 215°F steam, 68°F room. **EDR:** square feet of Equivalent Direct Radiation at the reference condition (215°F steam, 70°F room; 1 sq ft = 240 BTU/h). Outputs are derived from the EN 442-1 power law $\varphi = Km \times \Delta T^{n}$ (ΔT = mean water − room, °C); BTU/h rounded to whole numbers, EDR to one decimal place.