Carbon Equivilency (CE) calculation based on formulas from the International Institute of Welders (IIW), American Welding Society (AWS) and CSA Z662 (Z662).

Summary				
CE Formula	Does Carbon Equivalency Exceed 0.5?	Lowest CE	Average CE	Highest CE
CE (IIW)	CE < 0.5	0.34	0.36	0.38
CE (AWS)	CE < 0.5	0.37	0.38	0.41
CE (Z662)	CE < 0.5	0.34	0.36	0.39

To add additional heats, insert the new heats into the top of the below spreadsheet so they will be included in the formulas.

		Paste MTR Compositions Below																Carbon Equivalency Outputs			
Product ID/Heat #	Type	C	Mn	P	S	Si	Cu	Ni	Cr	Mo	Al	N	V	B	Ti	Nb/Cb	Co	CE (IIW)	CE (AWS)	F (Z662)	CE (Z662)
F23895	Heat	0.21	0.9	0.011	0.007	0.169	0.01	0.01	0.03	0.002	0.03	0	0.007	0	0	0	0	0.37	0.40	0.99	0.37
F23895	Prod	0.19	0.91	0.015	0.008	0.17	0.01	0.02	0.04	0.006	0.025	0	0.003	0	0	0	0	0.35	0.38	0.97	0.36
F23895	Prod	0.18	0.94	0.014	0.008	0.17	0.02	0.02	0.04	0.005	0.026	0	0.003	0	0	0	0	0.35	0.38	0.96	0.35
F23896	Heat	0.21	0.9	0.012	0.008	0.158	0.01	0.01	0.04	0.002	0.035	0	0.007	0	0	0	0	0.37	0.40	0.99	0.38
F23896	Prod	0.18	0.93	0.014	0.006	0.16	0.01	0.02	0.04	0.005	0.028	0	0.003	0	0	0	0	0.35	0.37	0.96	0.35
F23896	Prod	0.18	0.94	0.014	0.007	0.16	0.01	0.02	0.03	0.005	0.035	0	0.003	0	0	0	0	0.35	0.37	0.96	0.35
F23897	Heat	0.2	0.94	0.014	0.009	0.174	0.02	0.02	0.04	0.002	0.036	0	0.007	0	0	0	0	0.37	0.40	0.98	0.37
F23897	Prod	0.19	0.94	0.014	0.007	0.17	0.02	0.02	0.03	0.005	0.035	0	0.004	0	0	0	0	0.36	0.39	0.97	0.36
F23897	Prod	0.19	0.94	0.014	0.007	0.17	0.02	0.02	0.03	0.005	0.032	0	0.004	0	0	0	0	0.36	0.39	0.97	0.36
F23900	Heat	0.2	0.89	0.012	0.008	0.161	0.03	0.02	0.04	0.004	0.032	0	0.007	0	0	0	0	0.36	0.39	0.98	0.36
F23900	Prod	0.19	0.91	0.013	0.009	0.16	0.03	0.02	0.04	0.007	0.029	0	0.003	0	0	0	0	0.36	0.38	0.97	0.36
F23900	Prod	0.19	0.9	0.012	0.008	0.16	0.03	0.02	0.04	0.008	0.03	0	0.004	0	0	0	0	0.35	0.38	0.97	0.35
F24023	Heat	0.2	0.97	0.007	0.01	0.184	0.04	0.02	0.03	0.002	0.054	0	0.005	0	0	0	0	0.37	0.40	0.98	0.38
F24023	Prod	0.19	0.95	0.007	0.007	0.17	0.03	0.03	0.03	0.008	0.037	0	0.002	0	0	0	0	0.36	0.39	0.97	0.36
F24023	Prod	0.19	0.95	0.006	0.008	0.15	0.03	0.02	0.03	0.007	0.034	0	0.001	0	0	0	0	0.36	0.38	0.97	0.36
F24025	Heat	0.2	0.92	0.006	0.009	0.176	0.04	0.03	0.03	0.004	0.031	0	0.004	0	0	0	0	0.37	0.39	0.98	0.37
F24025	Prod	0.18	0.94	0.005	0.008	0.16	0.03	0.02	0.03	0.008	0.028	0	0.003	0	0	0	0	0.35	0.37	0.96	0.35
F24025	Prod	0.18	0.96	0.005	0.007	0.16	0.03	0.03	0.03	0.004	0.028	0	0.002	0	0	0	0	0.35	0.38	0.96	0.35
R25927	Heat	0.2	0.9	0.009	0.01	0.15	0.01	0.01	0.03	0.002	0.029	0	0.007	0	0	0	0	0.36	0.38	0.98	0.36
R25927	Prod	0.18	0.93	0.009	0.008	0.15	0.01	0.02	0.02	0.004	0.028	0	0.003	0	0	0	0	0.34	0.37	0.96	0.34
R25927	Prod	0.18	0.93	0.01	0.008	0.14	0.01	0.02	0.02	0.004	0.027	0	0.003	0	0	0	0	0.34	0.37	0.96	0.34
R25928	Heat	0.2	0.88	0.009	0.007	0.148	0.01	0.01	0.03	0.002	0.032	0	0.006	0	0	0	0	0.36	0.38	0.98	0.36
R25928	Prod	0.19	0.93	0.014	0.008	0.16	0.02	0.02	0.03	0.006	0.032	0	0.003	0	0	0	0	0.36	0.38	0.97	0.36
R25928	Prod	0.18	0.93	0.008	0.007	0.13	0.01	0.02	0.03	0.005	0.027	0	0.003	0	0	0	0	0.34	0.37	0.96	0.34
R25929	Heat	0.2	0.9	0.014	0.012	0.162	0.02	0.02	0.03	0.002	0.033	0	0.005	0	0	0	0	0.36	0.39	0.98	0.36
R25929	Prod	0.18	0.95	0.014	0.007	0.16	0.02	0.02	0.04	0.006	0.026	0	0.003	0	0	0	0	0.35	0.38	0.96	0.35
R25929	Prod	0.18	0.94	0.014	0.008	0.16	0.02	0.02	0.04	0.005	0.026	0	0.003	0	0	0	0	0.35	0.38	0.96	0.35
R25930	Heat	0.21	0.93	0.015	0.007	0.174	0.03	0.03	0.04	0.002	0.035	0	0.006	0	0	0	0	0.38	0.41	0.99	0.38
R25930	Prod	0.2	0.95	0.01	0.008	0.15	0.03	0.02	0.03	0.005	0.028	0	0.003	0	0	0	0	0.37	0.39	0.98	0.37
R25930	Prod	0.2	0.91	0.009	0.009	0.16	0.03	0.02	0.03	0.007	0.028	0	0.002	0	0	0	0	0.36	0.39	0.98	0.37
R25932	Heat	0.2	0.89	0.008	0.007	0.158	0.02	0.02	0.03	0.005	0.032	0	0.007	0	0	0	0	0.36	0.39	0.98	0.36
R25932	Prod	0.18	0.91	0.008	0.005	0.15	0.02	0.02	0.03	0.005	0.022	0	0.002	0	0	0	0	0.34	0.37	0.96	0.34
R25932	Prod	0.18	0.9	0.008	0.005	0.16	0.02	0.02	0.03	0.006	0.023	0	0.003	0	0	0	0	0.34	0.37	0.96	0.34
R26044	Heat	0.22	0.91	0.007	0.01	0.112	0.02	0.02	0.03	0.003	0.035	0	0.004	0	0	0	0	0.38	0.40	1.00	0.39
R26044	Prod	0.19	0.93	0.008	0.008	0.11	0.02	0.02	0.03	0.005	0.037	0	0.001	0	0	0	0	0.35	0.37	0.97	0.35
R26044	Prod	0.19	0.92	0.008	0.009	0.12	0.02	0.02	0.03	0.006	0.034	0	0.003	0	0	0	0	0.35	0.37	0.97	0.35
R26046	Heat	0.2	0.87	0.008	0.009	0.16	0.02	0.02	0.03	0.003	0.031	0	0.004	0	0	0	0	0.36	0.38	0.98	0.36
R26046	Prod	0.2	0.9	0.008	0.008	0.15	0.02	0.02	0.03	0.008	0.029	0	0.001	0	0	0	0	0.36	0.39	0.98	0.36
R26046	Prod	0.19	0.91	0.007	0.009	0.14	0.02	0.02	0.02	0.008	0.029	0	0.001	0	0	0	0	0.35	0.37	0.97	0.35
R26047	Heat	0.22	0.91	0.006	0.011	0.162	0.02	0.02	0.04	0.004	0.035	0	0.005	0	0	0	0	0.38	0.41	1.00	0.39
R26047	Prod	0.2	0.95	0.007	0.007	0.17	0.03	0.03	0.04	0.008	0.038	0	0.002	0	0	0	0	0.37	0.40	0.98	0.38
R26047	Prod	0.19	0.96	0.008	0.007	0.17	0.03	0.02	0.03	0.007	0.039	0	0.002	0	0	0	0	0.36	0.39	0.97	0.36
R26050	Heat	0.2	0.92	0.008	0.009	0.173	0.02	0.02	0.03	0.002	0.031	0	0.004	0	0	0	0	0.36	0.39	0.98	0.37
R26050	Prod	0.19	0.91	0.008	0.009	0.17	0.02	0.02	0.02	0.006	0.029	0	0.004	0	0	0	0	0.35	0.38	0.97	0.35
R26050	Prod	0.19	0.91	0.008	0.009	0.17	0.02	0.02	0.02	0.007	0.03	0	0.004	0	0	0	0	0.35	0.38	0.97	0.35