

Table 13-3 BOF Steelmaking, ISS-AIME, 1982, vol II, pg 855
 Enthalpy Changes Due to Temperature

Material	298 to 1000K		1400 to 2000K		
	Mean specific heat	$H_{1000}-H_{298}$ Kcal/Kg	$H_T-H_{298} = A + BT, \text{Kcal/Kg}$		
			A	B	
Al	0.390	274	- 7.2	0.2813	a
Al ₂ O ₃	0.261	183	- 8.4	0.3200	b
C	0.335	235	-260.2	0.4812	c
CO	0.264	185	-124.9	0.3043	d
CO ₂	0.258	181	-147.4	0.3217	d
CaC ₂	0.294	207	-	-	a
CaCO ₃	0.262	184	-	-	e
CaF ₂	0.244	171	- 12.4	0.3060	-
CaO	0.210	147	-104.0	. 0.3200	b
CaS	0.210	147	-104.0	0.3200	f
Fe	0.148	104	- 46.3	0.1969	-
Fe ₃ C	0.157	110	-	-	-
FeO	0.184	129	- 17.4	0.2366	-
Fe ₃ O ₄	0.217	153	-	-	e
Fe ₂ O ₃ fume	0.214	150	- 68.2	0.2173	-
Fe ₂ O ₃ slag	0.214	150	-114.5	0.3200	b
FeSi	0.161	113	-	-	e
H ₂	3.490	2450	-1582.7	3.9227	d
H ₂ O	0.599	420	-330.8	0.6461	d
L.O.I.	0.258	181	-147.4	0.3217	f
MgO	0.268	188	+ 5.0	0.320D	b
MgCO ₃	0.310	218	-	-	e
Mn	0.155	109	- 34.3	0.2002	-
MnO	0.169	119	-167.6	0.3200	-
N ₂	0.261	183	-124.6	0.3016	d
O ₂	0.241	170	-111.9	0.2768	d
O	0.250	180	-108.0	0.3200	f
P ₂	0.136	95	- 48.2	0.1431	d
P ₂ O ₅	0.251	176	-108.0	0.3200	f
S ₂	0.133	93	- 47.5	0.1401	d
Si	0.207	145	+369.7	0.2171	-
SiC	0.249	175	-	-	e
SiO ₂	0.256	180	- 23.9	0.3200	b

Remarks: a. completely oxidized in furnace
 b. liquid specific heat and heat of fusion estimated
 c. graphite d. gas e. decomposes in furnace
 f. estimated.