

List of Symbols

Symbol	Description
P_{cm}	Crack susceptibility factor
CE_{IIW}	Carbon equivalent as per International Institute of welding (IIW)
γ_{SL}	Interfacial tensions (mN/m) at the solid-liquid interface
γ_{SG}	Interfacial tensions (mN/m) at the solid-gas interfaces
γ_{LG}	molten slag surface tension (mN/m)
W_a	Work of adhesion (J/m^2)
θ	Contact angle
w	width of plate
n	No of experiments
k	No of regression variables
D	Composite desirability function
d_i	Desirability of specific response
w_i	Weights assigned to various responses
T_s	strip plate thickness
T_p	Plate thickness
θ°	Groove angle
a	Crack length in the rectangular field
b	Crack width in the rectangular field
W	Width of the specimen
T	Thickness of the specimen
H	Bead height
P	Bead penetration
W	Bead width
K	Corrosion constant
A	Area of specimen in cm^2
T	Time in hours
D	Density of material in gm/cm^3
α	Anodic decay (mv/dec)
β	Cathodic decay (mv/dec)
E_{Corr}	Corrosion potential (mV)
J_{Corr}	Corrosion current density ($\mu A/cm^2$)
R_p	Polarization resistance (Ω)