Element effects in steel and CEV

MANIK TRADING technical reference table

Element	Principal metallurgical effect	Interpretation role
C	Raises strength and hardenability; welding sensitivity	Direct CEV term
Mn	Deoxidation, strength and hardenability	Mn/6 in IIW
Cr + Mo + V	Hardenability and alloy-dependent high-temperature/precipitation effects	Sum divided by 5
Ni + Cu	Toughness/strength and alloying effect	Sum divided by 15
P + S	Controlled residuals affecting ductility/weldability	Not in IIW CEV but still controlled

Source / basis: ASTM Steel Specifications — chemical composition requirements by grade