

$$Z_j = 1 + B_j^{(0)} \times \frac{P_{rj}}{T_{rj}} + \omega_j \times B_j^{(1)} \times \frac{P_{rj}}{T_{rj}}$$

Where:

Z_j = Compressibility factor of gas j ;

$B_j^{(0)}$ = First parameter of the virial coefficient of gas j , calculated using equation 24-12.5;

P_{rj} = Reduced pressure of gas j , calculated using equation 24-12.3, in pascals;

T_{rj} = Reduced temperature of gas j , calculated using equation 24-12.4, in kelvins;

ω_j = Acentric Pitzer factor of gas j ;

$B_j^{(1)}$ = Second parameter of the virial coefficient of gas j , calculated using equation 24-12.6;