Brinson Model:

Total Martensite Volume fraction = Stress-induced component + Temperature induced component

Where,

: Total Martensite Volume Fraction

: Total Martensite Volume Fraction (Stress induced component)

: Total Martensite Volume Fraction (Temperature induced component)

)

* Conversion to detwinned martensite

for T > Ms &

] +

(

For T < Ms &

] +

(

Where, if

Else,

* Conversion to austenite:

For T > As and