

ALUMINIUM

Error code	Error message
E1	<i>ERROR: The member length for the check is zero or negative! Please check the Field input of the Aluminium member data! The Field input is ignored until the input is corrected!</i>

Warning code	Warning message
W1	<i>Warning: No initial shape was defined for this cross-section! Without initial shape no effective cross-section properties can be obtained. Gross cross-section properties are used instead, and the cross-section is checked as elastic Class 3.</i>
W2	<i>Warning: The shear area according EN 1999-1-1 art. 6.2.6 could not be determined due to not defined initial shape. Consequently, the shear areas A_y and A_z of the gross cross-section properties (FEM analysis) are used instead.</i>
W3	<i>Warning: Torsion is not taken into account for this cross-section!</i>
W4	<i>Warning: Due to extreme shear the bending resistance reduced for shear according to EN 1999-1-1 article 6.2.10 cannot be determined. Therefore, the elastic yield criterion according to EN 1999-1-1 article 6.2.1(5) is verified.</i>
W5	<i>Warning: Sheeting is not supported for this type of cross-section.</i>
W6	<i>Warning: Slenderness λ_{xx} is larger than the limit value of λ_{xx}.</i>
W7	<i>Warning: No point of contra flexure has been found within the buckling span for determining λ_{s} according to the buckling load case or λ_{s} is longer than the buckling length l_c. Half of the buckling length is used instead.</i>
W8	<i>Warning: The chosen calculation method for λ_{s} according to EN 1999-1-1 article 6.3.3.5(2) formula (6.71) cannot be executed. Half of the buckling length is used instead.</i>

Note code	Note message
N1	<i>Note: This section is not located in a heat affected zone (HAZ).</i>
N2	<i>Note: This section is located in a heat affected zone (HAZ).</i>
N3	<i>Note: Axis definition : - principal y- axis in this code check is referring to the principal z axis in SCIA Engineer - principal z- axis in this code check is referring to the principal y axis in SCIA Engineer</i>
N4	<i>Note: The shift of the neutral axis $e_{N,y}$ leads to a favourable result in the check and is therefore neglected.</i>
N5	<i>Note: The shift of the neutral axis $e_{N,z}$ leads to a favourable result in the check and is therefore neglected.</i>
N6	<i>Note: The Class has been manually set to x by the user.</i>
N7	<i>Note: The Elastic verification has been set by the user.</i>
N8	<i>Note: The decomposition is calculated using the FriLo BTII Solver.</i>
N9	<i>Note: This cross-section type is not covered in EN 1999-1-1 for the combined section check. Therefore, the elastic yield criterion according to EN 1999-1-1 article 6.2.1(5) is verified.</i>
N10	<i>Note: Since there is no corresponding bending moment, the effect of the shear force cannot be accounted for in the interaction. Therefore, the elastic yield criterion according to EN 1999-1-1 article 6.2.1(5) is verified.</i>
N11	<i>Note: Only the section check is executed for this member.</i>
N12	<i>Note: The slenderness or compression force is such that Flexural buckling effects may be ignored according to EN 1999-1-1 article 6.3.1.2(4).</i>
N13	<i>Note: The Buckling factors have been set to 0.001 to neglect Flexural buckling. (2nd Order calculation)</i>
N14	<i>Note: The slenderness or compression force is such that Torsional(-flexural) buckling effects may be ignored according to EN 1999-1-1 article 6.3.1.2(4).</i>
N15	<i>Note: The cross-section is not susceptible to Torsional(-flexural) buckling according to EN 1999-1-1 article 6.3.1.4(1).</i>

N16	<i>Note: The cross-section concerns a class 1 or 2 section composed of radiating outstands which is not susceptible to Torsional(-flexural) buckling according to EN 1999-1-1 article 6.3.1.4(1).</i>
N17	<i>Note: The Lateral torsional buckling check is ignored due to the fact that the compression flange is fully braced by the sheeting.</i>
N18	<i>Note: The slenderness or bending moment is such that Lateral torsional buckling effects may be ignored according to EN 1999-1-1 article 6.3.2.2(4).</i>
N19	<i>Note: C parameters are determined according to ECCS 119 2006 / Galea 2002.</i>
N20	<i>Note: The elastic critical moment M_{cr} has been manually inputted by the user.</i>
N21	<i>Note: The elastic critical moment M_{cr} is calculated using the FriLo BTII Solver.</i>