

Figure 10 shows the relationship between the yield strength and the elongation of the steel sheet. The yield strength of the steel sheet is 20/1 000, 15/1 000 and 40/1 000 MPa. The elongation of the steel sheet is 10%, 15% and 20%. The yield strength of the steel sheet is 20/1 000 MPa, the elongation of the steel sheet is 10%, and the yield strength of the steel sheet is 15/1 000 MPa, the elongation of the steel sheet is 15%. The yield strength of the steel sheet is 40/1 000 MPa, the elongation of the steel sheet is 20%.

3.2.2 Verification of formula

**of torsional yield strength
and proposal**

As shown in Fig. 3.2.1, the torsional yield strength T_{y0} is defined as the torque at which the maximum shear stress τ_{max} reaches the yield stress σ_y . The torsional yield strength T_{y0} is expressed by the following equation (1).

$$T_{y0} = \tau_{max} / \dots \dots \dots (1)$$

As shown in Fig. 3.2.2, the torsional yield strength T_{y0} is defined as the torque at which the maximum shear stress τ_{max} reaches the yield stress σ_y . The torsional yield strength T_{y0} is expressed by the following equation (2).

$$T_{y0} = \dots + \dots \dots \dots (2)$$

As shown in Fig. 3.2.3, the torsional yield strength T_{y0} is defined as the torque at which the maximum shear stress τ_{max} reaches the yield stress σ_y . The torsional yield strength T_{y0} is expressed by the following equation (3).

4. Method of Calculating

**Required Yield Strength
of Energy Dissipative Brace Connections
for Retrofitting**

Figure 12.10.10.1.1. Required Yield Strength of Energy Dissipative Brace Connections