

# S355J2H EN 10210-1 (Euronorm)

## Standards

EN 10210-1

Hot finished structural hollow sections of non-alloy and fine grain structural steels

## Chemical composition

<b>C</b>	< 0.22	<b>Si</b>	< 0.55	<b>Mn</b>	< 1.6	<b>P</b>	< 0.03
<b>S</b>	< 0.03	<b>Al</b>	> 0.02	<b>Fe</b>	Rest	<b>CE</b>	< 0.53

$CE = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$

t < 16mm: CE < 0.45

16mm < t < 40mm: CE < 0.47

40mm < t < 65mm: CE < 0.50

## Properties

By EN 10210-1

Thickness: < 3 mm ;

**Yield Strength: > 355 MPa**

**Tensile Strength: 510 - 680 MPa**

Thickness: 3 - 16 mm ;

**Yield Strength: > 355 MPa**

**Tensile Strength: 470 - 630 MPa**

Thickness: 16 - 40 mm ;

**Yield Strength: > 345 MPa**

**Tensile Strength: 470 - 630 MPa**

Thickness: 40 - 63 mm ;

**Yield Strength: > 335 MPa**

**Tensile Strength: 470 - 630 MPa**

Thickness: 63 - 80 mm ;

**Yield Strength: > 325 MPa**

**Tensile Strength: 470 - 630 MPa**

Thickness: 80 - 100 mm ;

**Yield Strength: > 315 MPa**

**Tensile Strength: 470 - 630 MPa**

Thickness: 100 - 120 mm ;

**Yield Strength: > 295 MPa**

**Tensile Strength: 450 - 600 MPa**

Longitudinal test pieces

Thickness: < 40 mm ;

## S355J2H EN 10210-1 (Euronorm)

**Elongation: > 22 %**

Thickness: 40 - 63 mm ;

**Elongation: > 21 %**

Thickness: 63 - 100 mm ;

**Elongation: > 20 %**

Thickness: 100 - 120 mm ;

**Elongation: > 18 %**

Transverse test pieces

Thickness: < 40 mm ;

**Elongation: > 20 %**

Thickness: 40 - 63 mm ;

**Elongation: > 19 %**

Thickness: 63 - 100 mm ;

**Elongation: > 18 %**

Thickness: 100 - 120 mm ;

**Elongation: > 16 %**

Impact test

**Impact energy KV -20°C: > 27 J**

Physical characteristics

**Density: 7.85 g/cm<sup>3</sup>**