



1801

# ITG STEEL PILES

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ETA 18/0001 of 03/07/2018

MCP

## Mechanical resistans and stability

Bending resistance and bending stiffness

Bending stiffness of pile with mechanical pile joint:

$$E \cdot I_{\text{spliced}} \geq 0,75 \cdot E \cdot I_{\text{unspliced}} \text{ (in moment range } 0,3 \cdot M_{el} - 0,8 \cdot M_{el})$$

Bending resistance of the pile with mechanical pile joint:

$$M_{\text{spliced}} \geq M_{\text{unspliced}}$$

Tension resistance

Tension resistance of the pile with mechanical pile joint:

$$N_{\text{spliced}} \geq 0,15 \cdot N_{\text{unspliced}}$$

Compression resistance

Compression resistance of the pile with mechanical pile joint:

$$F_{\text{spliced}} \geq F_{\text{unspliced}}$$

Robustness of pile joints

Impact test with stress level of  $0,5 \cdot f_y$

Material properties and dimensional tolerances

See ETA 18/0001 of 03/07/2018 Annex A4

Resistance to corrosion

The reduced load bearing capacities of pile pipes in consideration of thickness losses due to corrosion set in EN 1993-5 shall be calculated according to valid EN standards or national regulations

Reaction to fire

Class A1, according to EN 13501-1

## Material properties – Steel grade

The steel pile

S460MH according to EN 10219-1

The sleeve

S355J2H according to EN 10219-1

The bearing plate

S355J2 according to EN 10025-2

The rock shoe

S355J2 according to EN 10025-2

The dowel

EN 25CrMoS4 according to EN 10277-5