

Erratum

Erratum to the doctoral thesis “Processing and microstructure of direct-quenched and tempered ultra-high strength steels” by Saastamoinen A.

Change I:

Page 20: 4th sentence of the page has typing error. It should say “Lower finish rolling temperature (FRT) leads to increased working below recrystallization stop temperature and therefore more pancaking of the austenite.”

Change II.

2nd sentence of page 56 is missing two words. Correct sentence:

In Publication II, the effect of thermomechanical treatment on mechanical properties and microstructure at the quarter-thickness position was investigated.

Change III:

Table 22 has wrong values in conditions RAQ and RAQ +570 °C. Right values, which have been used in Publication IV is corrected to following:

Table 22. The effect of tempering temperature and re-austenitization on microstrain, crystallite size and estimated dislocation density at 150 µm depth. DQ and DQ + 570 °C results are from quarter thickness position. Data from Publication IV.

| Condition | Microstrain (%) | Crystallite size (Å) | Dislocation density $\times 10^{15} (\text{m}^{-2})$ |
|-------------|-----------------|----------------------|--|
| DQ | 0.295 | 256 | 3.73 |
| DQ + 250 °C | 0.265 | 246 | 3.49 |
| DQ + 400 °C | 0.266 | 321 | 2.68 |
| DQ + 500 °C | 0.115 | 269 | 1.38 |
| DQ + 570 °C | 0.185 | 318 | 1.88 |
| DQ + 600 °C | 0.079 | 273 | 0.94 |
| DQ + 650 °C | 0.044 | 303 | 0.47 |
| RAQ | 0.283 | 225 | 4.07 |
| RAQ +570 °C | 0.037 | 186 | 0.64 |

Change IV:

Novel features, final bullet point:

Correct amount of excess titanium is 150 ppm, not 160 ppm.