

## عنوان مقاله:

A Study on the Mechanical Properties of Dual Phase Steels Prepared by the Direct and Step Quenching Procedure

## محل انتشار:

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## خلاصه مقاله:

Two different dual phase steels were prepared from low carbon manganese steel after the elimination of the banding using the direct quenching (DQ) and the step quenching (SQ) procedures. Different heat treatments resulted in different martensite morphologies, microstructures and mechanical properties. The heat treatments were designed in such a way to obtain a ۰.۲۵ volume fraction of martensite ( $V_m$ ). For this reason, an intercritical temperature of ۷۲۵ °C was applied. Furthermore, the tensile and impact properties were discussed. The results from the impact and tensile tests at different temperatures showed that the ductile-brittle transition temperatures for the DQ and SQ treatments were -۴۹ and -۶ °C respectively, while the DQ had better toughness.

## کلمات کلیدی:

Dual phase steels, Fixed volume fraction of martensite, Impact properties, Toughness

## لینک ثابت مقاله در پایگاه سیویلیکا:

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