

Title (en)

WIRE ROD FOR ULTRA-HIGH STRENGTH SPRING, STEEL WIRE AND MANUFACTURING METHOD THEREOF

Title (de)

WALZDRAHT FÜR HOCHFESTE FEDER, STAHL DRAHT UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)

FIL MACHINE POUR RESSORT À ULTRA-HAUTE RÉSISTANCE, FIL D'ACIER ET PROCÉDÉ DE FABRICATION ASSOCIÉ

Publication

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Application

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Abstract (en)

Disclosed are a wire rod for an ultra-high strength spring, a steel wire, and a manufacturing method thereof, and more particularly, a wire rod for an ultra-high strength spring having excellent processability, a steel wire, and a manufacturing method thereof. According to an embodiment, the disclosed wire rod for an ultra-high strength spring includes, in percent by weight (wt%), 0.55 to 0.65% of C, 0.5 to 0.9% of Si, 0.3 to 0.8% of Mn, 0.3 to 0.6% of Cr, 0.015% or less of P, 0.01% or less of S, 0.01% or less of Al, 0.005% or less of N, more than 0% and 0.04% or less of Nb, and the remainder being Fe and unavoidable impurities, and satisfies a value of Formula (1) below being 0.77 or more and 0.83 or less: $C + 1/6 \cdot Mn + 1/5 \cdot Cr + 1/24 \cdot Si$ wherein in Formula (1), C, Mn, Cr, and Si represent the content (wt%) of each element.

IPC 8 full level

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