

COB033 INFLUENCE OF THE NUMBER OF SPECIMENS IN THE REFERENCE TEMPERATURE DETERMINATION - INITIAL APPROACH / INFLUÊNCIA DO NÚMERO DE CORPOS DE PROVA NA DETERMINAÇÃO DA TEMPERATURA DE REFERÊNCIA - ABORDAGEM INICIAL

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The ASTM E08.08 subcommittee is preparing a new standard, currently in the draft version #13, to determine the reference temperature T_0 for ferritic steels in the transition region. The minimum number of valid experimental results in the data set, to be analyzed by this proposed standard, for a given temperature T , is six. In this work this assumption (six results) is verified by comparison among the results obtained, in terms of $T-T_0$, with different number of toughness values (subsets) taken from a given large set that fits perfectly the Weibull three-parameter probability distribution. The conclusion is an indication of the way to be followed to determine the minimum number of experiments/results necessary to obtain at least 90%, 95% or 98% of the possible $T-T_0$ values near the target one (that of the whole set from which the subsets are taken)

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Mecânica da Fratura, Transição, Temperatura de Referência, Confiabilidade