

Standard of Friction Test

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1. Scope of Application

This standard mainly applies to test method and appraisal method of friction characteristic between press mold and its machining material(sheet metal).

2. Purpose

This standard is for improving sheet material's press forming characteristic or stabilizing press forming process by understanding and appraising friction factor and its relative characteristic that affects to the forming characteristic among the natures of friction between press molding and materials. And it can be used for analyzing plating adhesiveness or galling states of plating steel sheet by analyzing the results with this standard. On the other hand, this friction characteristic is used for calculation of material inflow resistance of die face and bead during press process of thin plate.

3. Definition of Terminology

Definition of terminology in this standard is follows

(1) Friction factor (Coefficient of friction)

Generally it is defined as coulomb friction factor for using industrial terminology

Friction factor = The ratio of the normal force on friction surface and the applying force on to friction surface direction for relative movement of friction surface.

There are static friction factor and kinetic friction factor in this friction factor.

(2) Static friction factor

Friction factor that occurs when the friction surface begins relative movement

(3) Kinetic friction factor

Friction factor that occurs during relative movement of the friction surface