

EDS

Engineering,
GM DAEWOO Auto & Technology.
Standards

METHOD FOR VICKERS HARDNESS TEST

EDS-T-7120

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VERSION: 3

1. SCOPE

This standard specifies the method of vickers hardness test for matallic materials. In this case, this standard shall be applied to the test load ranging from 0.01kgf to 2kgf.

2. DEFINITIONS

The vickers hardness value shall be calculated from the following formular and shall be the one left after the load to leave a pyramidal indentation in the test surface with the diamond indenter of the angle between opposite faces of 136° is divided by the surface area calculated from the length of the diagonal at indentation.

$$Hv = \frac{2P \times \sin(A/2)}{d^2} = 1.8544 \times \frac{P}{d^2}$$

Hv : Vickers hardness

P : Test load

d : Mean length of the diagonals at indentation

A : Angle between opposite faces of diamond indenter(136°)

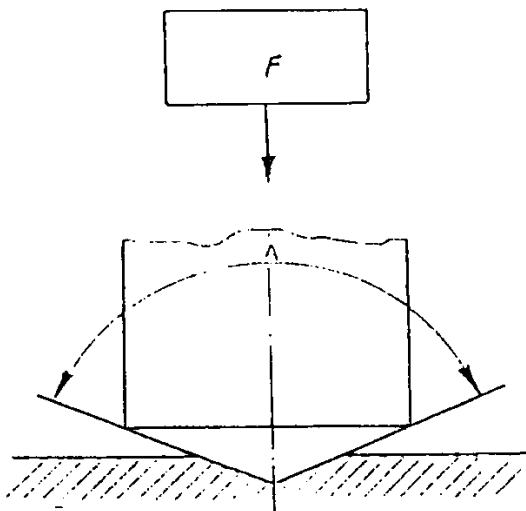


Fig. 1 Indenter

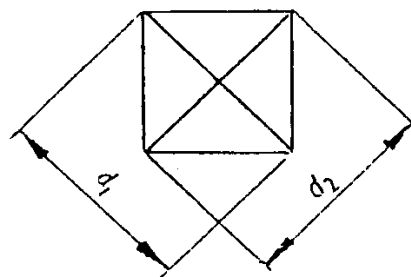


Fig. 2 Size of indentation

3. TEST PIECE

3.1. The test surface of the test piece shall be even in principle.

3.2. The test surface of the test piece shall have no foreign substances such as oil and oxidized substances on it.