

Product Name :
Astra Scientific Softening Point Apparatus

Product Code :
FuelTesting0011



Description :

Astra Scientific Softening Point Apparatus

Technical Specification :

Standard: EN 1427, ASTM D36, AASHTO T53

PRODUCT

VSP is used to determine the deflection temperature limit for specific application and comparing the heat softening characteristics of thermoplastic material at constant load in oil up to 300° C with specified rate of rise.

APPLICATION

Plastic materials being heat sensitive in nature has a lot of bearing on its thermal environment for its performance. Though their behavior in thermal conditions is very complex, some simple yield tests are used to predict it's behavior and performance in given conditions. This is one of such yield point very commonly employed with such demanding application.

USP

The apparatus is controlled with precisely designed micro controller, which controls the temperature with specified rate of rise. Deflection or insertion of pin is measured with the help of dial gauge.

Determination of Vicat Softening Point temperature

Definition: Vicat Softening point temperature is the temperature at which a flat-ended needle of 1 mm² circular section will penetrate a thermoplastic specimen to a depth of 2 mm under a specified load using a selected uniform rate of temperature rise. The two standard permissible rate of rise of temperature are $50 \pm 50^\circ\text{C/hr.}$ and $120 \pm 12^\circ\text{C/hrs}$

Principle & Significance: Determination of temperature at which a standard indenter penetrates 1mm in to the surface of plastic test specimen under one of the load as given above. During the test temperature is raised at uniform rate of temperature rise. The two standard permissible rate of rise of temperature are $50 \pm 50^\circ\text{C/hr.}$ and $120 \pm 12^\circ\text{C/hrs}$. The temperature at 1 mm penetration is quoted as Vicat Softening Temperature (VST) in $^\circ\text{C}$

This Apparatus is supported by versatile window based software to control and visualize the process of test on computer screen. Different tests can be recorded and compared on the screen.

Temp. Range 0 to 200°C 0 to 200 °C 0 to 200 °C 0 to 200 °C
0 to 200 °C 0 to 200 °C 0 to 200 °C 0 to 200 °C

Rate of rise Selectable Selectable Selectable Selectable Selectable Selectable Selectable
Selectable

Displacement measuring Analog Analog Analog Analog Digital Digital Digital Digital

Station 1 2 3 4 1 2 3 4

Interface N.A. N.A. N.A. N.A. Rs 232 Rs 232 Rs 232 Rs 232

Body M.S.inner SS-304 M.S.inner SS-304 M.S.inner SS-304
M.S.inner SS-304 M.S.inner SS-304 M.S.inner SS-304 M.S.inner
SS-304 M.S.inner SS-304



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