



TEX-106-E

Plasticity Index of Soils and Base Materials



Why

It measures the materials' cohesive qualities resulting from the clay content.



When

For embankment, flexible base, treated materials, when required on the plans, or plasticity index is required.

- Specification 132
- Specification 247



How

- Determine liquid limit in accordance with Tex-104-E.
- Determine plastic limit in accordance with Tex-105-E.



Action

Calculation

- Use the following equation to determine the plasticity index (PI) when the liquid limit (LL) and plastic limit (PL) are measured.

$$PI = LL - PL$$

Where:

LL = liquid limit, (in accordance with Tex-104-E.)

PL = plastic limit, (in accordance with Tex-105-E.)

- Use the following equation to determine the PI when it is not possible to produce a groove closure before 20 blows when measuring the liquid limit.
 - Determine the linear bar shrinkage in accordance with Tex-107-E.

$$PI = 1.6 \times \text{LinearBarShrinkage}$$

Report

- Report the plasticity index to the nearest whole number.