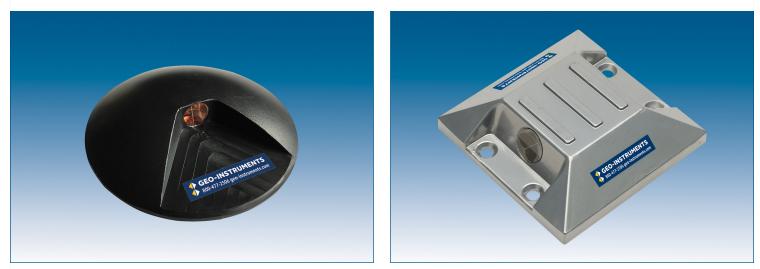
Road Prisms



Road prisms are low-profile optical targets used with AMTS to monitor settlement and deformation of roads, pavement, and other surfaces. GEO-Instruments offers a polymer version and a cast-aluminum version.

Polymer Dome Prism

This version is fixed to the surface with a FHWA - AASHTO approved adhesive. It can be installed quickly without drilling. Its non-reflective black housing is nearly invisible to drivers.

Installation

- 1.Clean surface
- 2.Apply FHWA / AASHTO approved adhesive to the surface
- 3.Align the prism toward the total station.
- 4. Press prism onto adhesive.

Specifications

Dimensions: 3.9 inch diameter x 0.7 inch height (100 x 18 mm).
Materials: Injection molded polymer dome, optical glass prism.
Prism: 0.4 inch (10 mm) diameter.
Prism Angle: Choice of 10°, 20°, or 40°.
Prism Offset: -13.1 mm.
Prism Offset for Leica: +21.3 mm.

Part Numbers

10° Polymer Dome Road Prism	TSP310
20° Polymer Dome Road Prism	TSP320
40° Polymer Dome Road Prism	TSP330

HD Cast-Aluminum Prism

This version is fixed to the surface via four screws. The cast-aluminum housing withstands heavy machinery and the screws keep the prism in place during repeated freeze-thaw cycles.

Installation

- 1.Clean surface.
- 2. Align prism toward total station and mark position for drill holes.
- 3. Clean the holes and inject epoxy mortar into drill holes.
- 4. Place prism over holes and screw down.

Specifications

Dimensions: 4 x 4 x 1 inch (100 x 100 x 23 mm).
Materials: Cast aluminum housing, optical glass prism.
Prism: 0.7 inch (17 mm) diameter. Double sided unit has two prisms.
Prism Angle: 20°.
Prism Offset: -11.3 mm.
Prism Offset for Leica: +23.1 mm.

Part Numbers

HD Cast-Aluminum Road Prism, Single Sided TSP340 HD Cast-Aluminum Road Prism, Double Sided TSP350

The prism inside the housing is angled upward 10° , 20° , or 40° to align with line-of-sight from the AMTS. Prisms can accommodate misalignments of $\pm 10^{\circ}$. For example, the 20° prism provides accurate measurements with angles from 10° to 30° .

In typical scenarios, 10° prisms are used with AMTS mounted on pedestals or tripods. 20° prisms are used with AMTS mounted on buildings up to 3 to 5 stories high, and 40° prisms are used with AMTS mounted on buildings 10+ stories high.