TSP DURAVUE® 7000 Fact Sheet
Durable Anti-Reflection Optical Thin Film Coatings

Description

**TSP DURAVUE® 7000** Series Durable Anti-Reflection hardcoatings are multi-layer thin films that offer an effective mechanism for providing optimum light transmission on polycarbonate or acrylic. These broadband coatings enhance display and optical scanner readability by significantly reducing reflection across the visible light spectrum to less than 1.0% per side of the plastic substrate, or <0.5% over a narrower bandwidth such as for laser optics.

An added feature of **TSP DURAVUE® 7000** brand of Anti-Reflection coatings are their durability, as they are unique in their ability to withstand repeated cleanings without scratching or smudging, a common problem with most anti-reflection surface treatments.

Applications

**DURAVUE® 7000** Series Anti-Reflection hardcoats can be applied to a wide variety of plastic sheet, windows, lenses, filters and panels. These coatings are available on polycarbonate or acrylic in a wide range of colors, thicknesses and sizes up to 12” x 12”.

Optical displays and filters with **DURAVUE® 7000** are available for the following types of optoelectronic devices:

- Liquid crystal
- Vacuum fluorescent
- Electro luminescent
- Light emitting diode
- Plasma Display Panels
- Bar code scanner exit windows

Typical Performance

**Abrasion Resistance, Chemical Resistance and Adhesion** is all comparable to TSP Abrasion Resistant Coatings for Optical Applications (see **DURAVUE® 1000** Fact sheet).

**ANTI-REFLECTION**

- **% Reflection**

  \[ R < 0.5 \text{ to } 1.0 \% \text{ per side} \]

<table>
<thead>
<tr>
<th>% Reflectance, DURAVUE 7000°</th>
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<tr>
<td>% Reflectance</td>
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<td>Wavelength [nm]</td>
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% Reflectance (per side) on clear, optical grade cast acrylic, with and without TSP’s **DURAVUE® 7000** Anti-Reflective hardcoat.

- **Resolution:**

  This criteria is determined by the minimum number of line pairs per millimeter an observer is able to resolve when viewing a target through the specimen at a specified distance. Typical results are > 15.0 a line pairs/mm

  "Viewing of a Resolving Power Test Target, through specimen placed 10mm above the target, observed at a distance of 200 mm above specimen."

In as much as TSP does not have control over the use to which other parties may put material, it can not guarantee that the same results as those described above will be obtained. Each user should make their own tests for determining the materials suitability for their particular application. Breakage warranty is the responsibility of the material manufacturer.

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