DURABLE VIEWING SOLUTIONS

TSP DURAVUE® 1000 Fact Sheet
Abrasion Resistant Coatings for Optical Applications

Description

TSPDURAVUE® 1000 hardcoatings combine silicone-based abrasion resistance with outstanding optical clarity and resistance to chemical attack. ***DURAVUE® 1000*** can be applied to a wide variety of plastic windows, lenses, filters or panels, including sheets up to *5' X 10'.* Applications should have relatively low exposure to UV light.

TSP will work with you to research and adapt the ideal ***DURAVUE®*** coating for your needs, taking into account the substrate shape, composition, and product in-use requirements.

Applications

This ***DURAVUE®*** coating is used for applications which require chemical or abrasion resistance and exceptional optical clarity. Examples include:

Instrument and gauge windows
Laser scanner windows
Portable electronics display lenses
Safety & security glazing
Projection TV lenses
Telephone display screens
Electronic game displays
Industrial computer CRT guards
Contrast enhancement filters

Typical Performance

The following results describe typical performance of these coatings. Contact your TSP Application Engineer for more details on your specific application.

Abrasion Resistance

- ASTM D-1003/1044: Taber abrasion test (500 cycles, 500 gm load with CS10F wheel): **<7% haze**

  (Ref: Uncoated polycarbonate = 35%)

- 0000 Steel Wool 2 P.S.I. 10 double rubs,
  No damage

Chemical Resistance

- ASTM D-1308: resistance to benzene, toluene, xylene, methylene chloride, acetone, ethyl acetate, and 40% sulfuric acid:
  No damage

- Saturated cotton ball test: 30 minutes with gasoline, antifreeze, brake fluid, and diesel fuel:
  No damage

Adhesion

- ASTM D3359-87, Scribed tape, 3 pulls over 10 x 10 scribe:
  100% adhesion

- 65*C water immersion, 10 days:
  100% adhesion

- Scribed tape, 2000 hrs. QUV exposure; cycle 8 hrs @ 70*C, 4 hrs @ 50*C:
  100% adhesion

Optical clarity

- ASTM D-1003: Light transmission versus uncoated substrate
  No change

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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