

TSP DURAVUE® 1500 Fact Sheet Abrasion Resistant Coatings for Outdoor Applications

Description

TSP DURAVUE® 1500 hardcoatings combine silicone-based abrasion resistance with excellent optical clarity, resistance to chemical attack, and exceptional stability during UV light exposure. *DURAVUE® 1500* can be applied to a wide variety of plastic windows, lenses, filters and panels, including plastic sheets up to 5' X 10'.

Applications

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

Architectural glazing
Vehicle glazing
Outdoor signage
Safety & security windows
Military & bullet-resistant glazing
Prison and detention glazing
Instrument and gauge lenses
Lamination Applications

Typical Performance

The following results describe typical performance of *DURAVUE® 1500* 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): **<5-8% 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

QUV Resistance

- Microcracking with 2000 hrs QUV exposure:
0% cracking
- Delamination with 2000 hrs QUV exposure:
0% delamination

Yellowness Resistance

- ΔYellowness Index (YID 1925) @ 2000 hrs QUV exposure: **<2.0 DE**

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.