DURABLE VIEWING SOLUTIONS

TSP DURAVUE® 5000 Fact Sheet
Abrasion Resistant Coatings for Cast, Extruded, or Molded Thermoplastic Substrates

Description

These coatings combine outstanding mar and abrasion resistance with premium optical clarity and excellent resistance to chemical attack. The benefit which these coatings provide is the ability to adhere to a wide variety of thermoplastic substrates.

Until recently, the only plastics which you could buy with an abrasion resistant coating tough enough for extended wear uses were those with high temperature stability such as acrylic and polycarbonate.

This has been overcome with the development of TSP's 5000 Series, which can now match the superior chemical and abrasion resistant properties of the siloxane hardcoats, but without subjecting the material to elevated temperatures during curing.

Applications

These coatings are used for applications, optical or otherwise, where a clear or opaque thermoplastic material requires excellent abrasion and chemical resistance. Compatible substrates include:

Polycarbonate	ABS
Acrylic	Rigid PVC
PET	Polystyrene
PETG	Cellulosic Materials

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

Abrasion Resistance

- ASTM D1003/1044 Taber Abrasion Test (500 cycles/500 gram load with CS10F wheel)

2.0 - 10.0% Δ Haze
(Ref: Uncoated polycarbonate 35% Δ Haze)

- 0000 Steel Wool 2 PSI 25 double rubs,

No Damage

Chemical Resistance

- Saturated Cotton Ball test = 30 minutes with gasoline, toluene, methanol, Sodium Hydroxide (10%), and acetone:

No Damage

Adhesion

- ASTM D3359-87, Scribed Tape, 3 pulls over 10 X 10 scribe:

100% Adhesion

Typical Performance:

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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