



Features

SERIES 599-B3740 is a sprayable hybrid conductive coating for use on plastic substrates. It is unique in that it is formulated in very **mild solvents** that can tolerate higher built-in stresses which can be found in molded parts, and provides effective shielding at 0.5 mil (12.5 microns) dry film thickness. It dries to a conductive film that is extremely hard, tough and durable. **599-B3740** contains no methyl ethyl ketone (MEK) or other strong solvents which can attack solvent-sensitive substrates, such as polycarbonate and polycarbonate blends. **599-B3740** is supplied as a concentrate. It is a fast drying solvent-base product for use in high volume production environments.

OUTSTANDING CHARACTERISTICS

- Compatible with sensitive plastic because of mild solvents
- Effective shielding at 0.5 mil (12.5 microns) dry film
- Passes U.L. requirements
- Excellent film cohesion
- "Zero tolerance" for loose particles in the film.
- Excellent adhesion to most plastic substrates
- Excellent abrasion resistance.
- Supplied as a viscous liquid for reduced settling.
- Minimal overspray and dusting during application.
- No rub-off due to handling.
- Fast drying
- Passes ASTM D-3359-97 adhesion test

Other products in the S.O.S. Series are 599-B3740 (silver/copper Hybrid) and 599-B3755 (silver-plated Copper).



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Product Description

Percent Solids:	36 ± 1.5% by weight.
Density:	10.0 ± .5 lbs. per gallon.
Viscosity (as supplied):	Thixotropic mixture.
Dilution:	2:1 by volume.
Application Viscosity:	The thixotropic properties of 599-B3740 during application can be maintained by using a combination of Ethyl Alcohol* and B-4045 (Super Mega Thinner) as the diluent. The recommended viscosity range at application is 8 - 18 seconds #4 EZ Zahn Cup. Our testing has shown that a viscosity of 13 seconds is ideal. Realize that a full range of custom viscosities can be created to satisfy any need.
Resistivity:	Less than .015 ohm/square per .5 mil (12.5 microns) DFT
Environmental Testing:	No change in resistivity after 7-day exposure to 85°C. @ 85% R.H.
RCA Abrader:	Pass 500+ cycles @ 1 mil dry with 55 gram weight.
Coverage:	280 square feet per gallon per .5 mil (12.5 microns) dry film.
Mask Cleaning:	Use Challenge 485S @ 16 oz./gallon @ 180-185°F. @ 70 psi pump pressure. If necessary, use Challenge 1052 as a defoamer.
Shelf Life:	Nine (9) months from date of manufacture

The technical data presented in this bulletin is based upon information believed by PPG to be currently accurate. However, no guarantees of accuracy, comprehensiveness, or performance are given or implied. Continuous improvements in coatings technology may cause future technical data to vary from what is in this bulletin. Contact your PPG representative for the most up-to-date information.



Craze Test:

In most applications, some degree of stress is inevitable. For this reason, a induces no crazing or cracking at stresses below 2000 psi.

1. Pass - 10 minute immersion at 2000 psi stressed injection molded clear polycarbonate resin bars.
2. Pass - spray applied to 2000 psi stressed injection molded clear polycarbonate resin bars dried at room temperature.
3. Pass - spray applied to 2000 psi stressed injection molded clear polycarbonate resin bars dried at a graduated temperature ranging from room temperature to 160° F. over 10 minutes.

*Ethyl Alcohol - 190 Proof (95% Ethyl Alcohol/5% Water)

Although 599-B3740 is formulated in mild solvents, the user must test the compatibility on the actual molded parts to determine its suitability for any specific application.

NOTE: 599-B3740 dries rapidly. Keep container closed. If skins develop, do not attempt to dissolve - strain through a coarse filter. Clean equipment after each use. Ethyl alcohol can be used to clean equipment. If strong solvents are used, flush the system with ethyl alcohol before use.



DILUTION PROCEDURE FOR 599-B3740

Objective: To achieve 11 - 16 seconds #4 Zahn cup when diluted with a blend of EA (Ethyl Alcohol) and MT (Mega Thinner B-4045). The ideal viscosity would be 13 seconds #4 Zahn cup.

Total Dilution Ratio: 1 gallon B-3740 : 4 pints EA/MT

STEP 1: Check initial viscosity:

Viscosity	<12 seconds	12-16 seconds	>16 seconds
Add	1 pint MT	1 pint MT	1 pint EA
Viscosity			

VISCOSITY

STEP 2:

Viscosity	<12 seconds	12-16 seconds	>16 seconds
Add	1 pint MT	1 pint MT	1 pint EA
Viscosity			

STEP 3:

Viscosity	<12 seconds	12-16 seconds	>16 seconds
Add	1 pint MT	1 pint MT	1 pint EA
Viscosity			

STEP 4:

Viscosity	<12 seconds	12-16 seconds	>16 seconds
Add	1 pint MT	1 pint MT	1 pint EA
Viscosity			