

How to Paint TPO

Thermoplastic Polyolefins

GLOBAL THERMOPLASTIC SOLUTIONS

Introductions

TPOs (thermoplastic polyolefins) can be painted using various methods. Information is provided below for a general-purpose painting. Each application should be reviewed to optimize the process and materials selected.

TPO materials typically require surface treatments prior to painting. However, some paint companies have developed systems for direct paint adhesion to TPO.

Paint Process

Surface Treatment

- Specialty primers or surface treatments applied directly to clean TPO surface
- Cleaning methods vary from solvent wiping to power wash cleaning
- Most paint systems can then be applied over cleaned and treated parts using standard paint application methods
- Suppliers of Surface Treatments by Type:
 - Chlorinated Adhesion Promoters or Primers (sprayed, rolled, or wiped on)
 - PPG
 - NB Coatings
 - Red Spot
 - Sherwin Williams
 - Corona Treatment (by hand or automatic)
 - Electro-Technic Products, Inc.
 - Corotec Corporation
 - PlasmaTreat
 - Enercon Industries
 - Flame Treatment (by hand or automatic)
 - TS Automation
 - Enercon Industries
- Suppliers of Standard Paint Systems:
 - Akzo Nobel
 - BASF
 - DuPont
 - PPG
 - NB Coatings
 - Red Spot
 - Sherwin Williams

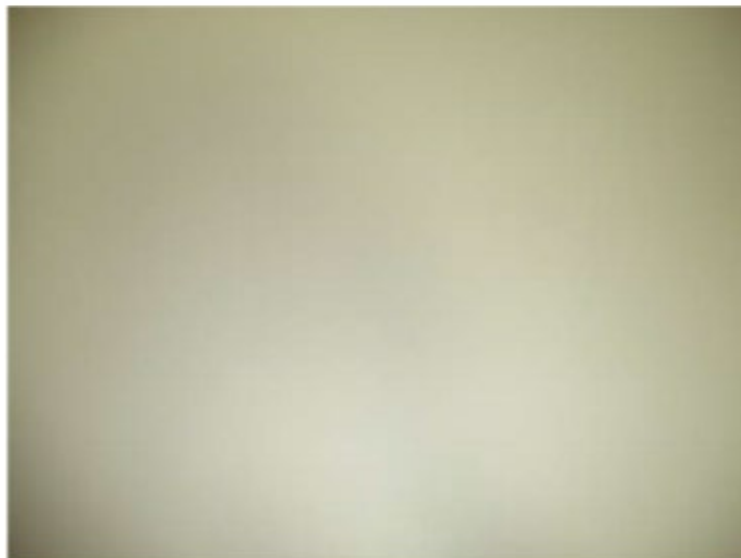
One Coat Paint Systems

- Paints modified for direct TPO adhesion to be applied over clean TPO surfaces
- Suppliers of one coat TPO paint systems:
 - NB Coatings (<https://www.nbcoatings.com/>)
 - Red Spot (<http://www.redspot.com/>)
 - Sherwin Williams (<https://www.sherwin-williams.com/>)

Steps in the Painting Process

1. Clean TPO Surface

- Saturate a rag with at least 50% isopropyl alcohol solution or a standard pre-cleaner as available at suppliers of automotive refinishing materials. Wipe off solution with clean cotton rag **before** solution evaporates.
- TPO part should be relatively defect-free. No scratches in excess of 320 grit. Any defects should be hand sanded smooth prior to proceeding to Step 2. The wipe-down process should be a good time to check for defects prior to painting.



2. Sanding

- Use a gray 3M scuff pad (#7448 or equivalent) to de-gloss entire area to be painted.



3. Secondary Cleaning

- Clean the TPO again with at least 50% isopropyl alcohol solution or a standard pre-cleaner as available at suppliers of automotive refinishing materials. Wipe off solution with clean cotton rag before solution evaporates.



4. Tack Surface

- Before applying the primer, use a high quality tack cloth to gently tack the entire area you are going to paint. Do NOT excessively tack the part, as this causes a build-up of static electricity.



5. Primer

- Spray one wet coat of RWP7227 at 45 lb. pressure over entire area to receive topcoat and let dry a minimum of 20 minutes. Dry mil thickness should be around 1 mil.

Written with input from: Solvay Engineered Polymers and Mytex Polymers

The information provided is for general use and should be verified with your particular adhesive vendor. Specific application requirement must be considered individually to ensure bonding performance.



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SIMONA PMC | +1 877 289 7626 | info@simona-pmc.com | www.simona-pmc.com



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