

## Pinnacle Bumper

The Pinnacle Bumper Project has enabled Brentwood Specialty Products Group to highlight and demonstrate their expertise in processing TPO's as well as the value of pre-finished TPO materials for body, fender, and outdoor applications.

In 2006 Brentwood Industries Specialty Products Group participated in the development of a thermoformed bumper for the Mack Pinnacle class "8" highway truck.

The color and look for the base bumper was developed with a combination of metallic flakes in the TPO colorant and a texture applied at the extruder. The high gloss silver accent appliqué is achieved with a TPO high gloss cap layer applied at the extruder. This resulted in cost-effective, prefinished materials.

Brentwood thermoformed both bumper parts with "articulated clamp frames" that enables them to essentially bend a narrow band of TPO sheet material around the 130" girth of the bumper parts. This eliminates the need for deep stretching and results in consistent material thickness in all areas of the parts.

Assembly of the TPO parts and steel mounting brackets was achieved with the extensive use of 3M VHB tape. With proper control of the assembly procedures VHB tape will hold the assembly together beyond the life of the vehicle and VHB tape has the ability to flex and bend with highway vibration and tolerates differences of thermal expansion rates.

Brentwood's Specialty Products Group has processed and evaluated all of the latest finishes and laminates for TPO. Their ability to process materials like TPO gives them the experience and advantage to handle the most challenging projects.