The active-grille shutter (AGS) device is a mechatronic system that helps improve fuel economy by selectively admitting or restricting airflow to the cooling pack based on real-time needs. However, to meet competing requirements for both protection of the cooling pack during low-speed frontal impact as well as pedestrian protection, a new design was needed. A special PP+EPDM material was developed and extensive use of slides and material changes during injection molding helps create the functional features needed to meet requirements and support 12 top-hat/powertrain variants with a single AGS housing tool and a single removable insert.