

AGS TECHNOLOGY CASE STUDY: INJECTOBLEND100 OFFERS SHOCKING SAVINGS

PRODUCT PROFILE

Industry:	Automotive
Application:	Suspension Coil Spring Seat Supports
Material Description:	Glass Reinforced Polypropylene
Requirements:	• Rigidity • Impact • Wear Resistance • Chemical Resistance



CUSTOMER ISSUE

A Tier 1 supplier of suspension systems sought cost savings through value analysis/value engineering (VA/VE) on high-volume spring seat supports used in light-duty trucks and large SUVs. These injection molded parts, made from virgin homopolymer 20% glass reinforced polypropylene (Asahi Kasei), represented a significant material spend. VA/VE Engineers agreed that these components were perfect target candidates for Injectoblend100 material substitution in hopes of realizing cost savings due to the amount of material per part and high cavitation tool.

AGS INJECTION MOLDING SOLUTION

During a broad market review of alternative materials, the VA/VE engineers evaluated two different Injectoblend100 20% glass reinforced polypropylene materials from AGS Technology: Injectoblend100 FPP222-2GM (Homopolymer) and Injectoblend100 FPP220-200 (Copolymer). Unlike conventional reprocessed materials, Injectoblend100 materials are direct injection molded, bypassing costly extrusion/pelletizing steps and avoiding the added heat history that can degrade plastic performance. Using a prototype mold, AGS successfully produced spring seat supports from Injectoblend100 FPP222-2GM (Homopolymer) and Injectoblend100 FPP220-200 (Copolymer); both materials met all OEM requirements, including structural rigidity, impact resistance, and long-term durability. Injectoblend100 FPP220-200 was chosen as the optimal material substitute based on performance equivalency to the virgin material via validation testing and slightly greater cost savings to the customer. Today, AGS Technology produces millions of spring seat supports annually using Injectoblend100 FPP220-200, delivering cost savings and sustainability without trade-offs.

