

AGS TECHNOLOGY CASE STUDY: INJECTOBLEND™ ABS NOW STANDARD ON THE CADILLAC STS

PRODUCT PROFILE

Industry: Automotive (Interior)
Application: General Motors Cadillac STS Door Module Bracket Assembly
Material Description: ABS to Meet General Motors GM7001M Line Callout
Requirements: • Heat Resistance • Rigidity • Dimensional Stability

CUSTOMER ISSUE

During a pre-sourcing technical review hosted by General Motors, GM Purchasing solicited cost saving proposals for the Cadillac STS Door Module Bracket Assembly without sacrificing GM's rigorous material and part performance specifications.

AGS INJECTION MOLDING SOLUTION

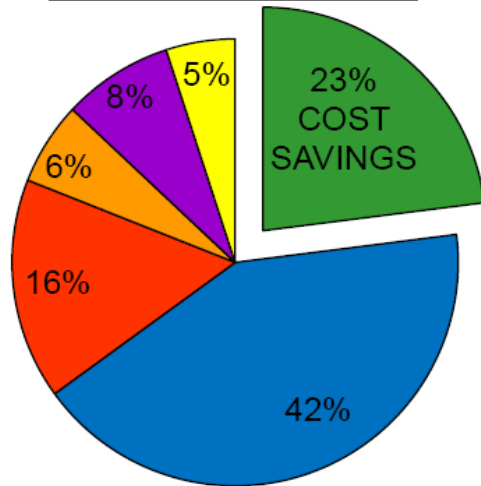
AGS Technology recommended Injectoblend™ FABS007 and utilizing the AGS injection molding process helped lower the molded piece part cost by 23%. AGS Technology was sourced the component and the Injectoblend™ material is approved to GM7001M ABS (DE1060, K370, M200, R90, SA180), complies with FMVSS302, and passes all STS component validation testing requirements.



STS DOOR MODULE BRACKET COST SAVING EXAMPLE

Piece Part Cost Savings = \$0.32
Percent Cost Saving = 23%

**Cadillac STS Door Module Bracket Piece Part Price
AGS Injectoblend™ FABS007**



- Cost Savings
- Recycled Raw Material
- Machine
- Labor
- SG&A
- Profit

AGS Technology Inc.

To find out more about how you can take advantage of AGS Technology's unique injection molding capability using Injectoblend™ materials call (847) 534-6600.

Typical Properties of AGS Thermoplastics

INJECTOBLEND™ FABS007

General Purpose ABS

FABS007 is available in black color only. Further information and details are available upon request

Properties	Test Method	English (U.S.)	Units (System)	Metric (S.I.)	Units (System)
PHYSICAL					
Specific Gravity, solid	D 792	-	1.05	-	1.05
Mold Shrinkage, 0.125" (3.2mm)	D 955	%	0.4-0.7	%	0.4-0.7
Water Absorption, 73F (23C), 24 hrs	D 570	%	-	%	-
Melt Flow Rate @ 230C / 3.8kg, nominal	D 1238	g/10min	5	g/10min	5
MECHANICAL					
Tensile Strength @ Yield, 73°F (23°C)	D 638	psi	6,000	MPa	41
Tensile Elongation @ Break, 73°F (23°C)	D 638	%	20	%	20
Flexural Strength, 73°F (23°C)	D 790	psi	9,000	MPa	62
Flexural Modulus, 73°F (23°C)	D 790	psi	330,000	MPa	2,277
Shear Modulus, 73°F (23°C)	D 4065	psi	-	MPa	-
Izod Impact, notched, 73°F (23°C), 0.125" (3.2mm)	D256	ft-lb/in	2.5	J/m	134
Izod Impact, notched, -22°F (-30°C), 0.125" (3.2mm)	D256	ft-lb/in	1.2	J/m	64
Izod Impact, notched, 73°F (23°C), 4 mm	ISO 180	-	-	kJ/m²	-
Instrumented Impact Total Energy, 73°F (23°C), 0.125" (3.2mm)	D 3763	ft-lb	-	J	-
THERMAL					
Deflection Temperature, unannealed					
264 psi (1.82 MPa), Load	D 648	°F	176	°C	80
66 psi (0.45 MPa), Load		°F	190	°C	88
CLTE, -40 °C - +80 °C (-40 °F - +176 °F)	D 696	in/in/°F	5.3 E-5	m/m/°C	9.5 E-5
FLAMMABILITY					
UL 94 Flame Class, 0.058" (1.47mm)	UL 94	-	HB	-	HB

The values shown on the data sheet are typical values that have been obtained on typical AGS materials, are not intended for specification purposes and are provided without any warranty or guarantee. Each user of the material should make his own test to determine the suitability of the material for his use. Therefore, it is understood and agreed that the customer assumes and hereby releases AGS Technology, Inc. from all liabilities, incurred in connection with the use of AGS products, technical assistance and information.