

# AGS CASE STUDY: INJECTOBLEND™ HELPS CHRYSLER DEFEAT SPARTAN INTERIOR IN NEW 300



IP Cluster Brow Substrate



Console Lid Substrate



IP Cluster Brow Closeout



## PRODUCT PROFILE

**Industry:**

Automotive (Interior)

**Applications:**

2011 Chrysler 300 IP Cluster Brow Substrates and Console Lid Substrate

**Material Description:**

ABS+PC Meets Chrysler MS-DB195

**Requirements:**

- Heat Resistance
- Impact Strength
- Rigidity
- Dimensional Stability

## CUSTOMER ISSUE

Chrysler challenged its supply base to come up with innovative solutions to help them overcome their reputation for building inferior interiors.

## AGS INJECTION MOLDING SOLUTION

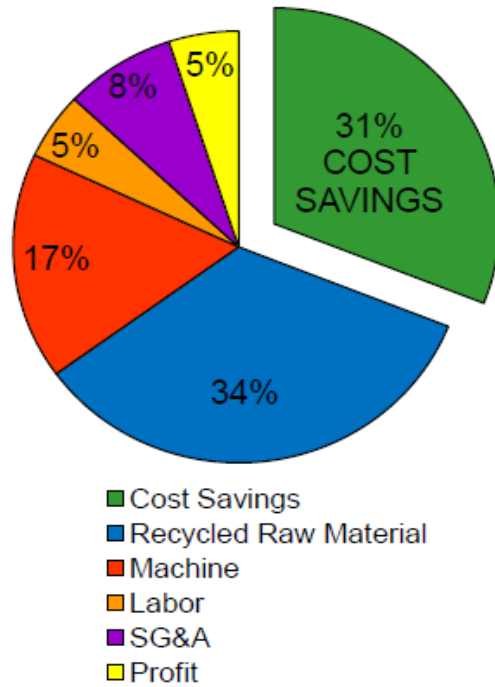
Working together with a progressive supplier of leather wrapped components, AGS helped prototype and launch several non-appearance, structural parts using its Injectoblend™ FABSPC003. Molding this recycled, ABS+PC blend helped lower piece part cost significantly. This allows Chrysler to use the savings to upgrade features that customers actually see and touch. The Injectoblend™ FABSPC003 material meets Chrysler MS-DB-195, passes FMVSS302 as well as part specific outside design and development (ODD) performance criteria.



**IP CLUSTER BROW SUBSTRATE COST SAVING EXAMPLE**

Piece Part Cost Savings = \$0.75  
 Raw Material % Cost Savings = 48%  
 Piece Part % Cost Savings = 31%

**IP Cluster Brow Substrate Piece Part Price  
 AGS Injectoblend™ FABSPC003**



**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™ FABSPC003**

ABS/PC Blend

FABSPC003 is available with internal and external lubricants, UV stabilized and other modifications.

Further information and details are available upon request

Properties	Test Method	English (U.S.)	Units (System)	Metric (S.I.)	Units (System)
<b>PHYSICAL</b>					
Specific Gravity, solid	D 792	-	1.13	-	1.13
Mold Shrinkage, 0.125" (3.2mm)	D 955	%	0.5-0.8	%	0.5-0.8
Water Absorption, 73°F (23°C), 24 hrs	D 570	%	0.10	%	0.10
<b>MECHANICAL</b>					
Tensile Strength @ Yield, 73°F (23°C)	D 638	psi	7,200	MPa	50
Tensile Elongation @ Break, 73°F (23°C)	D 638	%	75	%	75
Flexural Strength, 73°F (23°C)	D 790	psi	11,000	MPa	76
Flexural Modulus, 73°F (23°C)	D 790	psi	275,000	MPa	1,898
Izod Impact, notched, 73°F (23°C), 0.125" (3.2mm)	D256	ft-lb/in	11.0	J/m	587
Izod Impact, notched, -22°F (-30°C), 0.125" (3.2mm)	D256	ft-lb/in	8.0	J/m	427
Izod Impact, notched, 73°F (23°C), 4 mm	ISO 180	-	-	kJ/m²	46
Instrumented Impact Total Energy, 73°F (23°C), 0.125" (3.2mm)	D 3763	ft-lb	40	J	54
Instrumented Impact Total Energy, -22°F (-30°C), 0.125" (3.2mm),	D 3763	ft-lb	44	J	60
<b>THERMAL</b>					
Deflection Temperature, unannealed	D 648				
264 psi (1.82 MPa), Load		°F	234	°C	112
66 psi (0.45 MPa), Load		°F	259	°C	126
CLTE, -40 °C - +80 °C ( -40 °F - +176 °F )	D 696	in/in/°F	4.0 E-5	m/m/°C	7.2 E-5
Vicat Softening Temperature, 50N	ISO 306	°F	268	°C	131
<b>FLAMMABILITY</b>					
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.