

AGS TECHNOLOGY CASE STUDY: PUTTING A LID ON WASTE WITH CLOSED LOOP RECYCLING

PRODUCT PROFILE

Industry: Underground Drainage and Septic Systems (Commercial and Residential)
Applications: Lids
Material Description: High Density Polyethylene
Requirements: • Impact Strength • Corrosion Resistance • Closed Loop Recycling

CUSTOMER ISSUE

An OEM of drainage and septic systems was generating a significant amount of HDPE scrap punching out holes in their distribution boxes. These HDPE “punch outs” were a negative drain on profits due to their floor space storage needs and landfill costs.

AGS INJECTION MOLDING SOLUTION

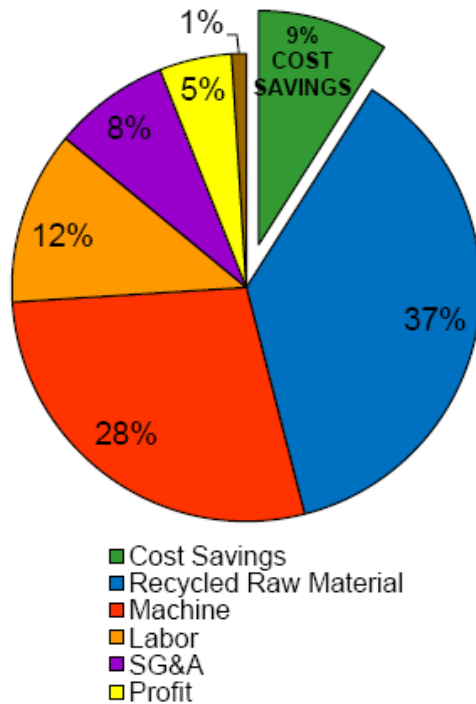
AGS Technology set-up a regular collection program and purchases the distribution box punch outs from the OEM. The punch outs are ground, cleaned, tested, and formulated for AGS to injection mold into mating lid parts. If there is a shortage of punch outs, AGS augments with Injectoblend™ FHDPE007 to help ensure a reliable HDPE supply and delivery of lids. The OEM not only turned their punch outs into a positive \$18,000/year profit source, but also reduced the cost of their lids 9% to 15%.



B1 LID COST SAVING EXAMPLE

Piece Part Cost Savings = \$0.15
Annual Punch Out Revenue = \$18,000
Percent Cost Savings = 9%

B1 Lid Piece Part Price
AGS Injectoblend™ FHDPE007



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™ FHDPE007

High Density Polyethylene Copolymer

FHPE007 is available in a variety of viscosities and other modifications.
 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	-	0.948	-	0.948
Environmental Stress Crack. F(50), Condition A, 10% Igp.	D 1693	hr	20	hr	20
MECHANICAL					
Tensile Strength @ Yield. 73°F (23°C)	D 638	psi	3,500	MPa	24.1
Tensile Elongation @ Yield. 73°F (23°C)	D 638	%	16	%	16
Flexural Strength. 73°F (23°C)	D 790	psi	4,000	MPa	27.6
Flexural Modulus. 73°F (23°C)	D 790	psi	80,000	MPa	552
Izod Impact, notched. 73°F (23°C), 0.125" (3.2mm)	D256	ft-lb/in	1.8	J/m	96
THERMAL					
Deflection Temperature, unannealed 66 psi (0.45 MPa), Load	D 648	°F	150	°C	65
CLTE. 20 °C - +75 °C (68 °F - +167 °F)	D 696	in/in/°F	1.1 E-4	m/m/°C	2.0 E-4
FLAMMABILITY					
UL 94 Flame Class. 0.058" (1.47mm) GM	UL 94 ISO 3795	- mm/min	HB < 100	- mm/min	HB < 100

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.