

AGS TECHNOLOGY CASE STUDY: HANDLE LOWER COST...UNDER PRESSURE

PRODUCT PROFILE

Industry:	Lawn & Garden (Commercial and Residential)
Application:	Pressurized Sprayer Handle
Material Description:	Acetal Copolymer
Requirements:	• Rigidity • Chemical Resistance • Toughness • Durability

CUSTOMER ISSUE

A leading manufacturer of premium, pressurized sprayers needed to lower their purchased components costs in order to compete with an onslaught of offshore spraying products.

AGS INJECTION MOLDING SOLUTION

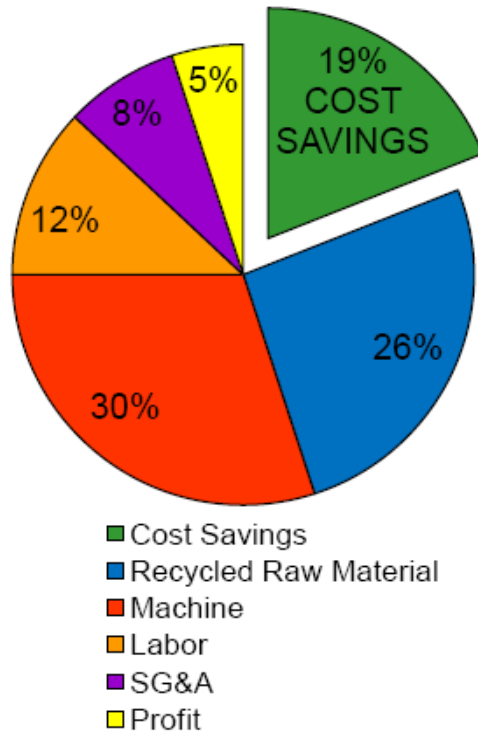
AGS Technology replaced virgin acetal copolymer used in their high volume sprayer handle by injection molding AGS' recycled equivalent. AGS Injectoblend™ FPOM110 recycled acetal copolymer provided the same performance as the virgin raw material at a 19% piece part cost savings. In addition, the manufacturer was able to differentiate itself from the offshore competition by promoting their environmental stewardship through the use of recycled materials.



SPRAYER HANDLE COST SAVING EXAMPLE

Piece Part Cost Savings = \$0.015
 Annual Volume = 3,200,000
 Annual Cost Savings = \$48,000
 Percent Cost Savings = 19%

**Pressurized Sprayer Handle Piece Part Price
 AGS Injectoblend™ FPOM110**



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™ FPOM110

Medium Viscosity Acetal Copolymer

FPOM110 is available in black color, UV stabilized and with 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	-	1.41	-	1.41
Mold Shrinkage, 0.125" (3.2mm)	D 955	%	1.8 - 2.2	%	1.8 - 2.2
Water Absorption, 73F (23C), 24 hrs	D 570	%	0.3	%	0.3
Water Absorption, Saturation 73F (23C)	D 570	%	0.9	%	0.9
Melt Flow Rate	D 1238	g/10min	10	g/10min	10
MECHANICAL					
Tensile Strength @ Yield, 73°F (23°C)	D 638	psi	9,000	MPa	62
Tensile Elongation @ Break, 73°F (23°C)	D 638	%	20	%	20
Flexural Strength, 73°F (23°C)	D 790	psi	13,500	MPa	93
Flexural Modulus, 73°F (23°C)	D 790	psi	390,000	MPa	2,691
Izod Impact, notched, 73°F (23°C), 0.125" (3.2mm)	D256	ft-lb/in	1.1	J/m	59
Izod Impact, notched, 73°F (23°C), 4 mm	ISO 180	-	-	kJ/m²	5.0
THERMAL					
Deflection Temperature, unannealed	D 648				
264 psi (1.82 MPa), Load		°F	221	°C	105
66 psi (0.45 MPa), Load		°F	320	°C	160
Melting Point	D 3418	°F	325	°C	163
CLTE, -40°C to +35°C (-40°F to +95°F)	D 696	in/in/°F	-	in/in/°C	-
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.