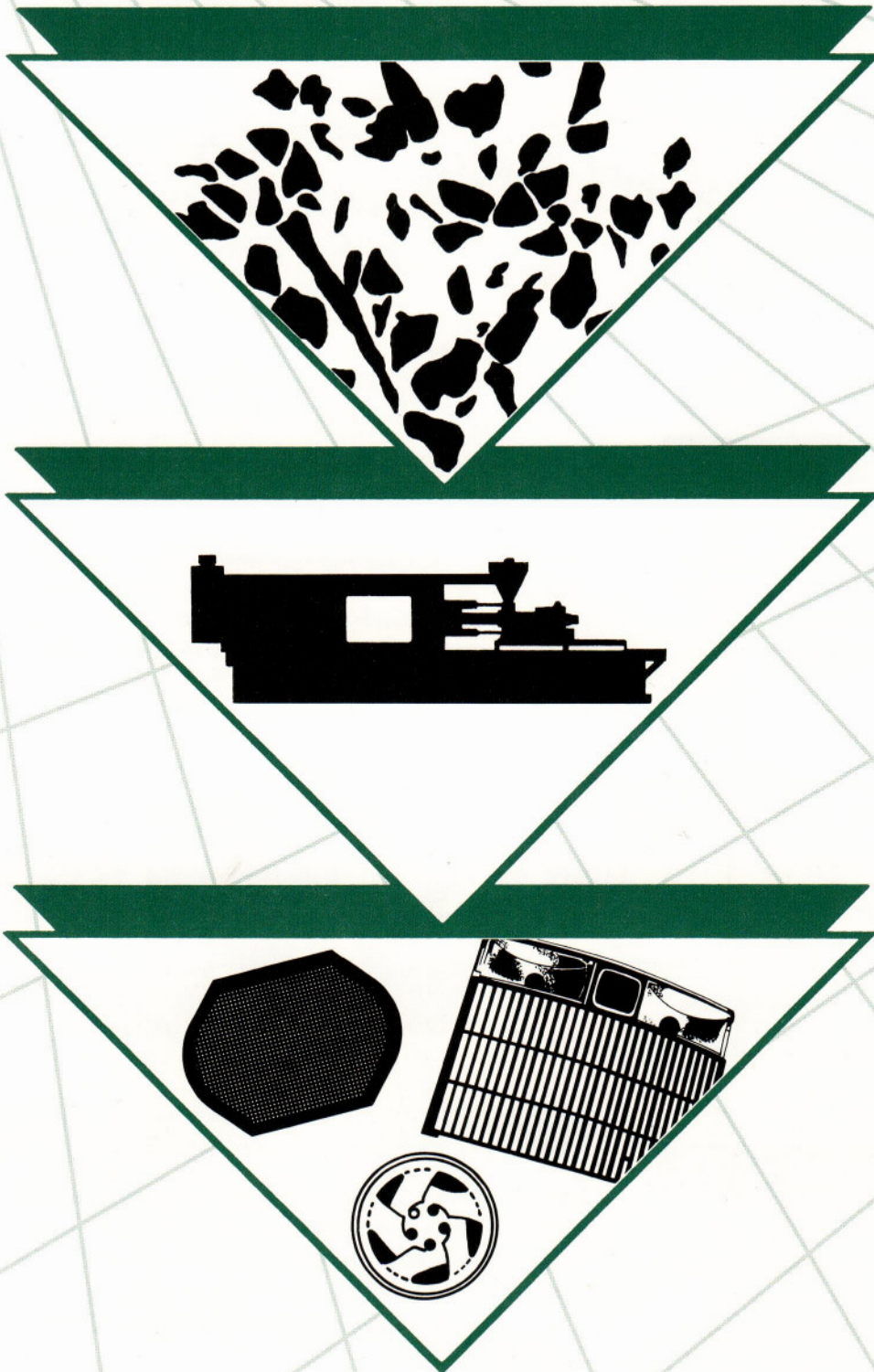


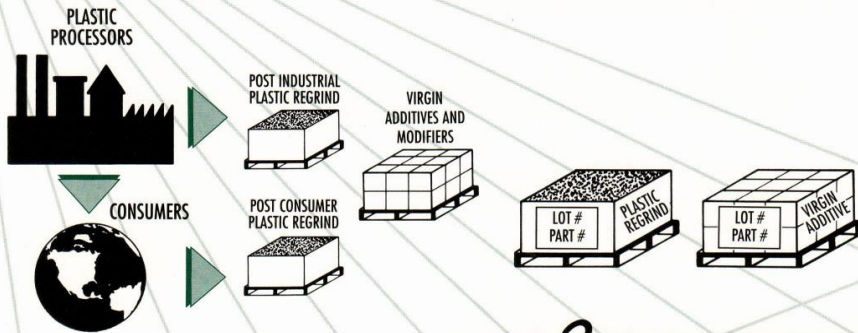
# AGS Technology Inc.

INJECTION MOLDED PARTS FROM RECYCLED PLASTIC



**Cost Savings • Performance • Recycled Content**

AGS Technology is a custom injection molder specializing in the use of recycled raw materials. Combining less expensive recycled plastics with good injection molding practices makes AGS the low cost producer of high-quality parts that meet all performance requirements.

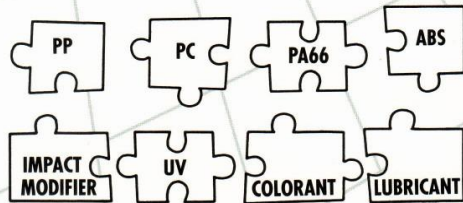


## STEP 1 RAW MATERIAL SOURCES

By managing a wide base of post industrial and post consumer plastic regrind sources, AGS can assure continuity of supply. Sources include waste streams from the packaging, medical, optical, fiber, automotive, computer, and business equipment industry. In addition, AGS maximizes plastic regrind performance through the use of virgin additives and modifiers.

## STEP 2 INCOMING RAW MATERIALS

Virgin additives and modifiers are received with supplier's certifications. Unlike virgin materials, plastic regrind is not accompanied with performance certification data. As a result, AGS systematically qualifies incoming plastic regrind to internally assigned part numbers. Incoming raw materials are inspected and labeled with lot numbers and internal part numbers. Lot numbers initiate a lot traceability system. Internal part numbers define the minimum performance requirements that the raw material must meet.

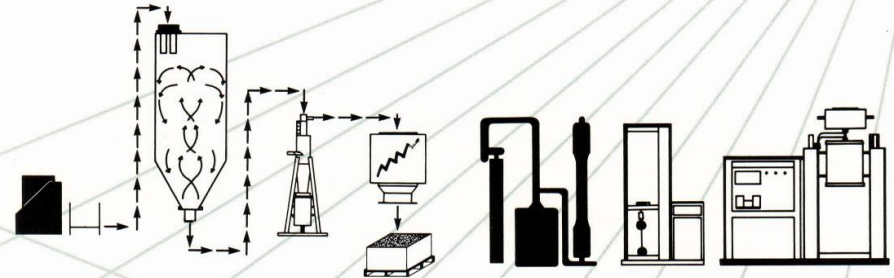


## STEP 5 RAW MATERIAL FORMULATIONS

AGS' raw material recycling expertise meshes plastic regrind with chemical technologies to produce formulations that process and perform consistently from part to part. Formulations specify raw material part numbers and the molecular weight proportions that meet finished part requirements.

## STEP 6 INJECTION MOLDING

As specified by the formulation, approved raw materials are blended in the prescribed amounts. Specially designed molding equipment allows for precise shot to shot repeatability and compounds the raw materials within the barrel. Coupled with a quality program that emphasizes planning, process control, and continuous improvement, AGS produces high quality parts.



## STEP 3 PROCESSING PLASTIC REGRIND

Plastic regrind is mechanically blended for evaluation. Magnets, metal separators, and aspiration equipment remove contaminants such as ferrous and non-ferrous metals, fines, papers, wood, etc... The result is a clean, homogeneous blend from which representative samples are obtained for analysis.

## STEP 4 CHARACTERIZING PLASTIC REGRIND

Representative plastic regrind samples are molded and tested to determine visual, physical, thermal, rheological, chemical, environmental, and flammability properties. These test results are compared to internally assigned part number specifications. Based on these comparisons, plastic regrind is accepted, downgraded, or rejected.



## STEP 7 PART VALIDATION

A finished product validation certifies that recycled parts will meet their end use requirements. Standard and custom tests simulate impact, heat aging, humidity, cold temperatures, chemical exposure, fatigue, and other applicable conditions. Appropriate samples of production parts are subjected to simulated end use conditions to certify conformance to expectations.



## STEP 8 PACKAGING AND SHIPMENT

Reusable, recycled, and/or recyclable packaging is used to protect and facilitate transport of finished goods. Part validation results accompany every shipment.

## BENEFITS

- **Parts that work:** The basis for combining a design with the appropriate material and conversion process is to produce a finished part that will meet its end-use requirements. A primary concern for durable goods manufacturers using recycled materials is that the integrity of their part is not sacrificed. AGS addresses this concern by fusing its raw material recycling expertise with world class injection molding practices. In addition, a validation program that certifies the performance of the molded article gives customers added confidence that their part will meet end-use conditions.
- **Parts at the lowest cost:** Plastic resin is the largest portion of a molded part's cost. Therefore, lowering the cost of raw material is the most effective method to reduce part cost. AGS' ability to procure and convert low cost recycled materials into top quality, injection molded articles provides customers the most cost-effective part.
- **Parts with recycled content:** Concern for the environment has created a demand for recycled products. AGS molded parts inherently contain recycled content. As a result, durable goods manufacturers can meet their recycling targets and goals working in partnership with AGS.

## APPLICATIONS

AGS converts a wide variety of recycled commodity and engineering grade materials into functional parts using large tonnage injection molding machines.

- **Automotive:** Instrument panel components, consoles, cowl vent grilles, fan shrouds, head & signal lamp housings, heater/AC ducts, speaker assemblies, interior trim, and exterior body panels.
- **Business equipment:** Enclosures, brackets, panels, bases, and printer cartridges.
- **Lawn & garden:** Tractor grilles, bumpers, fenders, hoods, dash panels, pedals, levers, and lenses.

## GETTING STARTED

AGS can meet your performance, cost, and recycling objectives for new and existing applications. To find out more about how you can take advantage of these benefits for your demanding application, contact AGS Technology.

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