

## APPENDIX G: END MARKET CUSTOMERS: MATERIAL EVALUATIONS AND REQUIREMENTS

The following information is derived from written evaluations of samples of target plastics recovered from project disassembly trials and interviews that preceded material delivery or telephone interviews that supplemented, or substituted for, written material evaluations. Some information that was expected was obtained for inclusion in this final report. The perception of any potential competitive edge was acute.

	<b>Business Description</b>	<b>Materials sampled</b>	<b>Processing Capacity and Material Requirements</b>
<b>POLYCYTEK, Battle Creek, MI</b>	Compounder-compressor molder of polyolefins; buys range of resins; major product application is large pallets (44"x56") for the beverage industry; has ability to compress mold ASR with vinyl or polyethylene to produce RR ties and lumber but does not currently have customers for this application. ABS may be used for basketball backboards mixed with polycarbonate possibly and PVB.	TPO, HDPE polypropylene	Will buy under hood polyeth TPO, polypropylene, ABS, and PC. Processing capacity is estimated. Sources on an ongoing basis.
<b>MONTELL N.A.- POLYMER RESOURCE GROUP, Baltimore, MD</b>	Prefers post-industrial scrap inputs since material characteristics of process scrap can be determined with greater certainty than with post consumer materials. Montell's Polymer Resource Group (PRG) operates a recycling facility with a processing capacity of 33 million pounds of post consumer polyolefins. The facility currently processes 12-20 million lbs of polypropylene and polyethylene. The facility is not set up to take bumpers or instrument panels. Grinding of post consumer auto materials would have to be conducted by an intermediate processor or reclaimer. These polyolefins can be used in blow molding, injection molding, and sheet extrusion for auto and other end markets.	Polypropylene, TPO	Polypropylene sample contained contaminants which Montell cannot support. Need to be removed from TP material and recommended for identification, and paint removal. Demanding performance characteristics. This project recommendation is to develop an integrated process for different polypropylene resin grades according to the announcement in this joint development project with automotive companies. A goal is to significantly simplify recovery.
<b>ENVIROTECH PLASTICS, Amherstburg, Ontario</b>	Envirotech reprocesses and upgrades their feedstock and produces pellets.	TPO, polypropylene, ABS, and HDPE.	The quality of all the samples was good.
<b>RECYCLING SEPARATION TECHNOLOGIES (RST), Lowell, MA</b>	RST cleans engineered plastics but is not a toll service. Can separate ABS and PC. 99% of material comes in as regrind. RST's paint removal process does not use solvents, and he plans to automate. Using a solvent for removal would make process too expensive. In 11th yr of operation.	ABS, polycarbonate, and TPO	RST indicated having the technical capacity to include paint removal process to remove paint from 1,000,000 lb/yr. depending on company, no further response.

## APPENDIX G: END MARKET CUSTOMERS: MATERIAL EVALUATIONS AND REQUIREMENTS (CONT'D)

<b>BLUE WATER PLASTICS, Marysville, MI</b>	Blue Water is an injection molder of automotive parts and is an Tier 1 supplier.	TPO and polypropylene	As the only tier 1 automotive end market that focuses on development of markets for automotive parts. At a minimum, Blue Water requires strict automotive specifications.
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			9000 certifications. Qualification includes an audit of the supplier's performance. Blue Water, therefore, wanted OEM certification. Blue Water wanted to establish a firm price. After a lengthy telephone interview, any pricing information was
<b>RONDY AND COMPANY, Barberton, OH</b>	Accepts scrap and regrind, depending on customer needs. Rondy moves material as is to its end market or pelletizes and adds black to the material. Their HDPE is used in pipe manufacturing and also in sheet extruding that is sold to the thermoforming industry. Polypropylene is used in lawn and garden products.	Polypropylene, HDPE	Indicated a strong interest in The quality of the HDPE and melt point was <1. The den
<b>MICHIGAN POLYMER RECLAIM (MPR), Lansing, MI</b>	Broker and/or pelletizer of HDPE and other resins.	Polypropylene, HDPE	MPR will take over 5,000 lb without compromising the quality as detergent packaging.
<b>FINDLAY FOAM RECYCLING, Toledo, OH</b>	buys HDPE, polypropylene, ABS, polycarbonate, and TPO in addition to foam. Sorts, grinds or pelletizes rigid and flexible plastics.	ABS, TPO, polypropylene	Will place baler on material and flexible plastics. Process Currently takes corrugated pipe and TPO samples were accepted
<b>COMPOUND TECHNOLOGIES (CT) Troy, MI</b>	This company revitalizes and recolors post industrial material and sells it back to the customer. CT works closely with auto Tier 1 and 2 suppliers and is ISO 9002 certified. Auto parts that they supply pellets for include body side moldings, seat shin plates, seat belt sewing welt, heel pads for carpeting, and instrument panels. CT processes a broad range of polymers including ABS, flexible PVC, polystyrene, polyethylene, and polypropylene.	TPO, ABS, polypropylene, and HDPE	Current processing volume is As this report is being completed although CT staff expressed
<b>AMERICAN COMMODITIES, INC. (ACI), Flint, MI</b>	End market for polycarbonate lenses and TPO and acrylic (PC/PBT alloys) bumpers. Will take ABS and nylon in near term.	Not applicable	This company did not receive with this company in the country
<b>PLASTIC SEPARATION SPECIALISTS, INC., Anderson, SC</b>	Takes off-specification material. Company started in 1985 and has a 6 mill lb/yr. capacity. Color separates with electronics/optics. The company receives all of their material from brokers, compounders, and molders.	Polycarbonate, TPO	ABS-polycarbonate very difficult 40% material. This company quality. Will help market material and works extensively with Excel
<b>PERFORMANCE POLYMERS, Holly, MI</b>	Company is now defunct.	ABS, TPO, polypropylene, and HDPE	No follow up data was obtained