

# End of Life Recovery Options Matrix

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**ROUILLARD**

End of Life Recovery Options				
Identification of Materials		Material Recovery Opportunities		
Material	Example Components	Recycling Notes	Higher Value Opportunity	Lower Value Opportunity
<b>Electronics</b>				
Miscellaneous Electronics (Circuit boards, cords, motors, etc.)	Power/Data electrical module integrated in lounge and table product	Actively recycled to capture metals, precious metals, and plastic content.	Recycled to capture metals, precious metals, and plastic content	Recycled only to capture a limited material stream (e.g. precious metals)
<b>Glass</b>				
Tempered Glass	Glass top table	Recycling requires separation from traditional glass (i.e. "float glass") as tempered glass has a higher melting point. As such, many facilities do not accept tempered glass.	Recycled tempered glass	Crushed for use in aggregate products
Fiberglass Batting	VIBE chair from OMP (arrow) (polypropylene-fiberglass backrest)	Limited recycling may be available into composite acoustical panels and other composite products. Material is not typically accepted by most recyclers.	Recycled into acoustical panels & other composite products	Landfill Disposal
<b>Plastic</b>				
Acetal (POM)	Chairs component	Actively recycled into raw polymer by industrial plastic recyclers. It is important to note, however, that recycled plastic markets are highly variable and acceptance of a given material fluctuates based upon multiple factors (e.g. material type, quantity, presence of contaminants, markets for that material, etc). Recycling value is improved with greater quantities and accurate material identification (i.e. identified by base polymer, filler, and additive content).	Recycled POM Re grind	Mixed Thermoplastic Compression Molding
Acrylonitrile Butadiene Styrene (ABS)	electrical endcaps		Recycled ABS Re grind	
Acrylic (PMMA)	Modesty panel (table system), fabrics backing		Recycled PMMA Re grind	
Low Density Polyethylene (LDPE, LLDPE)	Plastic bag (to cover the final product)		Recycled LDPE Re grind	
Nylon (PA)	Chairs component		Recycled PA Re grind	
Polyurethane (PU)	Fabrics (venyl)			
Polypropylene (PP)	Chairs (seat and counter shell)		Recycled PP Re grind	
Polystyrene (PS, EPS, HIPS)	Chairs component		Recycled PS Re grind	
Polyvinyl Chloride (PVC)	Edge banding table	Recycled PVC Re grind		
Polyurethane Foam	Foam, and some chairs components	Actively recycled by foam manufacturers and recyclers into carpet padding.	Recycled Carpet Padding	
<b>Metals - Ferrous (e.g. Steel, Iron)</b>				
Steel		Actively recycled into raw ferrous metal ingot. Ferrous metals are easily separable from other materials through shredding and magnetic separation. Therefore, many metal recyclers will accept ferrous metals which contain small amounts of mixed materials (e.g. plastic, aluminum).	Recycled Steel Ingot	Off Grade Ferrous Ingot
Cast Iron			Recycled Cast Iron Ingot	

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<b>Metals - Non-Ferrous (e.g. Aluminum, Stainless Steel, Zinc Die Cast, Brass)</b>				
Cast Aluminum		Actively recycled into raw metal ingot. Non-ferrous metals are not separable through magnetic separation. Recycling value is improved with greater quantity and accurate material identification (e.g. metal grade).	Recycled Cast Grade Aluminum Ingot	Recycled Off Grade Aluminum Ingot
Extruded Aluminum			Recycled Extruded Grade Aluminum Ingot	Recycled Off Grade Aluminum Ingot
Stainless Steel			Recycled Stainless Steel Ingot	Recycled Off Grade Ferrous Ingot
<b>Textiles</b>				
Natural Fabrics	Leather	Recycling possible into non-woven fabrics.	Recycled fibers into shoddy for use in non-woven products	Landfill Disposal
Polyester Fabrics		Recycling possible into raw polymer.		
Mixed Fabrics		Recycling possible into non-woven fabrics.		
Vinyl		Recycling possible only through extraction based processes.	Recycled PVC polymer through extraction based processing	
<b>Wood / Biobased Materials</b>				
Particleboard		Not currently actively recycled due to process and economic limitations. Reuse or refurbishment are currently the best options for these materials. As a low value option, the energy content can be reclaimed in a designated waste-to-energy facility equipped with proper pollution control technologies.	Not Actively Recycled (Currently)	Waste to Energy
Medium Density Fiberboard (MDF)				
Plywood				
Hardwood				
<b>Other</b>				
Laminate		Not currently actively recycled due to process and economic limitations. Reuse or refurbishment are currently the best options for these materials. As a low value option, the energy content can be reclaimed in a designated waste-to-energy facility equipped with proper pollution control technologies.	Not Actively Recycled (Currently)	Waste to Energy
<i>Revision Date: 2019-10-11</i>				