

Data Sources Underlying the Computer Electronics Environmental Benefits Calculator - Mixed Office Electronics

Baseline Assumptions for Conventional Products for End-of-Life				
Criteria	Attribute	Value	Reference*	Notes
EOL	Product composition of mixed electronics destined for recycling:			Assumes that equipment is obsolete and destined for a demanufacturing facility, not an asset recovery operation.
EOL	CRT Monitors	19% by weight	UNICOR, 2012.	
EOL	Desktop processors	11% by weight	UNICOR, 2012.	
EOL	Other office electronics	45% by weight	UNICOR, 2012.	Includes LCDs, notebooks, printers, copiers, scanners, fax machines.
EOL	Miscellaneous electronics	25% by weight	UNICOR, 2012.	For example, VCRs, cell phones.
EOL	Material composition of mixed electronics destined for recycling:			
EOL	Plastics	32%	UNICOR, 2012.	Majority is ABS, ABS/PC, HIPS.
EOL	Ferrous metals (steel)	36%	UNICOR, 2012.	
EOL	Cu content	6%	UNICOR, 2012.	From copper-bearing non-ferrous metals (cables, low grade PWB, transformers, fans, motors, and high & medium grade PWB).
EOL	Non-ferrous metals. Cu-bearing, excluding Cu content	13%	UNICOR, 2012.	Includes cable, low grade PWB, transformers, motors, fans, minus the actual copper content. UNICOR provided an estimate of "non-ferrous metals, Cu-bearing" from which the copper content was subtracted.
EOL	Silver content	0.0020%	UNICOR, 2012.	From high & med-grade PWB.
EOL	Gold content	0.0007%	UNICOR, 2012.	From high & med-grade PWB.
EOL	Palladium content	0.0002%	UNICOR, 2012.	From high & med-grade PWB.
EOL	High/medium grade PWBs, excluding precious metal and Cu content	1%	UNICOR, 2012.	
EOL	CRT Glass	6%	UNICOR, 2012.	
EOL	Non-ferrous metals, Aluminum	6%	UNICOR, 2012.	
EOL	High/medium Grade PWBs	4%	UNICOR, 2012.	Includes copper and precious metals content.
EOL	Low Grade PWBs	6%	UNICOR, 2012.	Includes copper content.
EOL	Total PWBs	10%	UNICOR, 2012.	Includes low, medium and high grade printed wire boards; used in hazardous waste calculation.
EOL	Plastic (resin) wire insulation (excluding copper wire)	2%	UNICOR, 2012.	Used in hazardous waste calculation.
EOL	Fate of mixed electronics sent for recycling:			
EOL	% of Material Collected for Recycling that is recycled	85%	UNICOR, 2012.	Includes material and energy recovery.
EOL	% of Material Collected for Recycling that is reused	15%	UNICOR, 2012.	

REFERENCES

UNICOR 2012. Personal communication with Todd Baldau, U.S. Department of Justice, UNICOR Federal Prison Industries, March 21 and April 25, 2012.