

# Universal Laser Engraver

Recommended Raster and Vector Settings (40 Watt)

**Unless otherwise noted, PPI for cutting & rastering is always 1000, and Raster Quality is 5**

<b>MATERIAL CLASS</b>	<b>RASTER ENGRAVING</b>	<b>VECTOR CUTTING</b>
<b>BOLD = IN SUPPLY CLOSET</b>	<b>POWER/SPEED</b>	<b>POWER/SPEED</b>
<b>Plywood</b>	General - 100/100 Stained/Painted Birch - 100/75 Slotting - 100/15 Maple - 100/75	Baltic Birch: - (1/8") - 100/2 - (1/4") - 100/0.8 - (3/8") - 100/0.6 Bamboo (1/8") - 100/3.5 Cherry (1/8") - 100/1.7 IMP Lauan (1/8") - 100/1.2 SandePLY (1/4") - 100/1 Walnut (1/4") - 100/0.5
<b>Acrylic</b>	General - 30/70 2 Tone: - (.022") - 100/100 - (1/16") - 50/100 - (1/8") - 100/50 Wax Seal - 100/25 (6)	(.022") 2 Tone - 100/15 (1/32") - 100/15 (1/16") - 100/4 - 2 Tone - 90/4.5 (1/8") - 100/2 - Clear - 100/1.8 - Glitter - 100/2 - Mirror - 100/2 (1/4") - 100/0.5
<b>Veneer</b>	Maple - 50/100 General/Walnut/Cherry - 70/100	(1 Ply, No Backing) 100/15 (2 Ply) 100/9
<b>Cardboard</b> <b>Matboard</b> Taskboard Museum Board	General - 100/100 Notebook - 40/100	Cardboard: - (1/8") - 100/6 - (1/4") - 100/4 Chipboard: - (1/64") - 100/17 - (1/32") - 100/12 - (1/16") - 100/8 - (1/8") - 100/1 Crescentboard - 100/5.5 Matboard: - (1/8") - 100/10 - (1/16") 100/12 Museum Board (1/16") - 100/8 Taskboard (1/8") - 100/3.5
Blackline Laser Safe MDF	General - 100/100	(1.6 mm) - 100/2.7 (2.3 mm) - 100/2 (3 mm / 1/8") - 100/1.7 (4.8 mm) - 100/1.3 [Will need punched out]

<b>White Core Cardstock</b>	40/100	45/35
Masonite		(1/8") - 100/2
Solid Woods	General - 75/100 - Cheery, Maple, Red/White Oak, Narra, Canarywood, Basswood, Eastern Red Cedar Softest - 25/100 - Padauk Softer - 50/100 - Mahogany, Pine, Spanish Cedar, Sapele Medium - 100/100 - Bamboo, Poplar, Ash, White Oak Harder - 100/75 - Bloodwood, Bubinga, Leopardwood, Purpleheart, Zebrawood, Yellowheart, Pink Ivory, Bolivian Redwood Hardest - 100/50 - Wenge, East Indian Rosewood	(1/16"): - Basswood - 100/5 - Cherry - 100/10 - Mahogany - 100/9 - Maple - 100/7 - Walnut - 100/9 (1/8"): - Ash - 100/2.9 - Basswood - 100/3 - Canarywood - 100/2.7 - Cherry - 100/2.5 - East Indian Rosewood - 100/1.2 (2x) - Maple - 100/2 - Padauk - 100/2.9 - Pink Ivory - 100/2 - Purple Heart - 100/3 (2x) - Yellowheart - 100/1.9 - Wenge - 100/1.2 - Zebrawood - 100/0.9 - Leopardwood - 100/2 (2x) - Bolivian Redwood - 100/0.9 (1/4"): - Balsa - 100/13 - Basswood - 100/1.5 - Maple - 100/1.9 - Red Oak - 100/1 - Poplar - 100/1 - Walnut - 100/1.2 - Bocote - 100/0.8 - Eastern Red Cedar - 100/0.2 - White Oak - 100/0.9
Cork	25/100	(1/16") - 100/20 (1/8") - 100/10 (1/4") - 50/6
Leather [Vegetable Tanned only]	100/100 - Deep Etch 25/100 - Surface Etch	(1/16", 4 oz) - 100/4.5
Glass	100/50	Stained Glass ONLY - 5/100 5x, then break with stained glass pliers
Stone	Slate - 100/100	Unable to Cut
Anodized Aluminum	General - 100/25 (6)	Unable to Cut
Felt	30/100	100/40
Duchess Satin (polyester)		100/50

Shiny Donated Fabric		100/5
Delrin	50/100	(1/4") - 0.5/100
PET Sheet		Adhesive - 100/15 Non-Adhesive - 90/21
Worbla [tape to plywood]		Finest Art (1 Ply) 100/5 Finest Art (2 Ply) 100/3.5
<b>No-Odor Laser Rubber</b>	100/25 (6)	100/10 [Scoring Only]
Hypalon	50/100	(17 oz) - 100/14 (35 oz) - 100/5
EPDM Rubber (Clean optics after cutting)		(0.6") 100/1.8
Mylar (Stencil)		100/55
Laser Foil	No raster- etch at 25/100 for color	60/100 - Only cuts foil
Polystyrene Foamcore		100/20
EVA foam (10 mm)	100/15 (3x)	
Urethane Grey Foam (1.3lb/cu ft)		(1/2") 100/24 (3/8") 100/40 (1/4") 100/55
Foam Rubber (NBR) - 3.6 lb/cu. Ft (yoga mat material)		(1/2") - 100/10/100 x2 (scorches)
Scuba Neoprene	75/100	100/40 (possibly multiple passes)