

Material Parameters–Recommended Settings

Nova Plus Laser Cutter | RF 80W

Purpose & Scope:

This document provides recommended material parameters for the Nova Plus RF 80W laser cutter. The parameters are intended as typical starting points for standard engraving and cutting applications.

Material	Thickness (mm)	Processing	Speed (mm/s)	Min Power (%)	Max Power (%)	Air pressure value	DPI	Focus Lens
Birch Ply	/	Engraving	1000	25	25	1	300	2.5
Birch Ply	3mm	Cutting	30	55	55	8	/	2.5
Birch Ply	5mm	Cutting	20	60	60	8	/	2.5
Birch Ply	10mm	Cutting	8	90	90	8	/	4
Birch Ply	15mm	Cutting	2	100	100	8	/	4
Birch Ply	18mm	Cutting	/	/	/	/	/	/
Cherry Wood	/	Engraving	1000	20	20	1	300	2.5
Cherry Wood	3mm	Cutting	25	45	45	8	/	2.5
Cherry Wood	8mm	Cutting	15	80	80	8	/	2.5
Cherry Wood	11mm	Cutting	10	80	80	8	/	4
Cherry Wood	15mm	Cutting	6	100	100	8	/	4
Cherry Wood	20mm	Cutting	4	100	100	8	/	4
MDF	/	Engraving	1000	20	20	1	300	2.5
MDF	3mm	Cutting	20	40	40	8	/	2.5
MDF	10mm	Cutting	12	90	90	8	/	4
MDF	15mm	Cutting	4	90	90	8	/	4
MDF	20mm	Cutting	/	/	/	/	/	/
Acrylic	/	Engraving	1100	20	20	1	300	2.5
Acrylic	3mm	Cutting	25	50	50	8	/	2.5
Acrylic	6mm	Cutting	20	70	70	8	/	2.5
Acrylic	10mm	Cutting	6	100	100	8	/	4
Acrylic	15mm	Cutting	4	100	100	8	/	4
Acrylic	20mm	Cutting	1	100	100	8	/	4

THUNDER LASER

Material	Thickness (mm)	Processing	Speed (mm/s)	Min Power (%)	Max Power (%)	Air pressure value	DPI	Focus Lens
EVA Foam	/	Engraving	1000	10	10	1	300	2.5
EVA Foam	10mm	Cutting	27	100	100	8	/	4
EVA Foam	20mm	Cutting	15	100	100	8	/	4
EVA Foam	30mm	Cutting	8	100	100	8	/	4
Cork	/	Engraving	1000	15	15	1	300	2.5
Cork	3mm	Cutting	25	50	50	8	/	2.5
Bamboo	/	Engraving	1000	25	25	1	/	2.5
Bamboo	3mm	Cutting	25	60	60	8	/	2.5
Cotton Fabric	/	Engraving	1000	10	10	8	300	2.5
Cotton Fabric	1mm	Cutting	100	10	10	8	/	2.5
Cotton Fabric	3mm	Cutting	80	40	40	8	/	2.5
Cardboard	/	Engraving	1000	12	12	1	300	2.5
Cardboard	3mm	Cutting	100	60	60	8	/	2.5
Cardboard	5mm	Cutting	40	45	45	8	/	2.5
Leather	/	Engraving	900	15	15	1	300	2.5
Leather	1.5mm	Cutting	80	60	60	8	/	2.5
Leather	3mm	Cutting	25	60	60	8	/	2.5
Denim	/	Engraving	1000	18	18	1	300	2.5
Denim	1mm	Cutting	100	40	40	8	/	2.5
Rubber	/	Stamp Engraving	800	60	60	8	300	2.5
Rubber	2.3mm	Cutting	15	90	90	8	/	2.5
Delrin	/	Engraving	600	50	50	1	300	2.5
Delrin	1mm	Cutting	85	90	90	8	/	2.5
Delrin	3mm	Cutting	30	90	90	8	/	2.5
Delrin	5mm	Cutting	8	75	75	8	/	2.5
Melamine	/	Engraving	1000	15	15	1	300	2.5

Material	Thickness (mm)	Processing	Speed (mm/s)	Min Power (%)	Max Power (%)	Air pressure value	DPI	Focus Lens
Melamine	1mm	Cutting	30	90	90	8	/	2.5
Mother of Pearl	/	Engraving	1000	15	15	1	300	2.5
Mother of Pearl	3mm	Cutting	45	90	90	8	/	2.5
Paper	/	Engraving	1000	8	8	1	300	2.5
Paper	0.6mm	Cutting	200	8	8	8	/	2.5
Mylar	/	Engraving	1000	20	20	1	300	2.5
Mylar	1.5mm	Cutting	75	90	90	8	/	2.5
Anodized Aluminum	/	Engraving	1000	25	25	1	300	2.5
Coated Metals	/	Engraving	1000	30	30	1	300	2.5
Ceramic	/	Engraving	600	30	30	1	300	2.5
Glass	/	Engraving	1000	40	40	1	300	2.5
Marble	/	Engraving	600	40	40	1	300	2.5
Tile	/	Engraving	800	40	40	1	300	2.5

Disclaimer:

These parameters are provided as recommended values only. Actual results may vary due to material differences, environment, and machine condition. Always perform a small test before production.

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