Material Parameters–Recommended Settings

Titan/Titan Pro Laser Cutter | RF 50W

Purpose & Scope:

This document provides recommended material parameters for the Titan/Titan Pro RF 50W 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	2000	70	70	0.5	300	/
Birch Ply	3mm	Cutting	25	10	90	2	/	2
Birch Ply	6mm	Cutting	10	10	90	2	/	2
Birch Ply	10mm	Cutting	8	10	90	2	/	2
Birch Ply	15mm	Cutting	1	10	90	2	/	4
Birch Ply	18mm	Cutting	x	x	x	x	/	4
Cherry Wood	/	Engraving	2000	70	70	0.5	300	/
Cherry Wood	3mm	Cutting	40	10	90	2	/	2
Cherry Wood	8mm	Cutting	25	10	90	2	/	2
Cherry Wood	11mm	Cutting	8	10	90	2	/	2
Cherry Wood	15mm	Cutting	6	10	90	2	/	4
Cherry Wood	20mm	Cutting	2	10	90	2	/	4
MDF	/	Engraving	2000	80	80	0.5	300	/
MDF	3mm	Cutting	10	10	90	2	/	2
MDF	10mm	Cutting	8	10	90	2	/	2
MDF	15mm	Cutting	2	10	90	2	/	4
MDF	20mm	Cutting	x	x	x	x	/	4
Acrylic	/	Engraving	2000	70	70	0.5	300	/
Acrylic	3mm	Cutting	30	10	90	2	/	2
Acrylic	6mm	Cutting	10	10	90	2	/	2
Acrylic	10mm	Cutting	4	10	90	2	/	2
Acrylic	15mm	Cutting	3	10	90	2	/	4
Acrylic	20mm	Cutting	2	10	90	2	/	4

Material	Thickness（mm）	Processing	Speed（mm/s）	Min Power（%）	Max Power (%)	Air pressure value	DPI	Focus Lens
EVA Foam	/	Engraving	2000	50	50	0.5	300	/
EVA Foam	10mm	Cutting	20	10	90	2	/	2
EVA Foam	20mm	Cutting	10	10	90	2	/	4
EVA Foam	30mm	Cutting	8	10	90	2	/	4
Cork	/	Engraving	2000	50	50	0.5	300	/
Cork	3mm	Cutting	100	10	90	2	/	2
Bamboo	/	Engraving	2000	80	80	0.5	300	/
Bamboo	3mm	Cutting	30	10	90	2	/	2
Cotton Fabric	/	Engraving	2000	40	40	0.5	300	/
Cotton Fabric	1mm	Cutting	100	10	90	2	/	2
Cotton Fabric	3mm	Cutting	100	10	90	2	/	2
Cardboard	/	Engraving	2000	70	70	0.5	300	/
Cardboard	3mm	Cutting	100	10	90	2	/	2
Cardboard	5mm	Cutting	40	10	90	2	/	2
Leather	/	Engraving	2000	50	50	0.5	300	/
Leather	1.5mm	Cutting	80	10	90	2	/	2
Leather	3mm	Cutting	20	10	90	2	/	2
Denim	/	Engraving	2000	40	40	0.5	300	/
Denim	1mm	Cutting	100	10	90	2	/	2
Rubber	/	Stamp Engraving	2000	2	90	2	400	/
Rubber	2.3mm	Cutting	30	10	90	2	/	2
Delrin	/	Engraving	2000	50	50	0.5	300	/
Delrin	1mm	Cutting	85	10	90	2	/	2
Delrin	3mm	Cutting	25	10	90	2	/	2
Delrin	5mm	Cutting	10	10	90	2	/	2
Melamine	/	Engraving	2000	60	60	0.5	300	/

Material	Thickness（mm）	Processing	Speed（mm/s）	Min Power（%）	Max Power (%)	Air pressure value	DPI	Focus Lens
Melamine	1mm	Cutting	25	10	90	2	/	2
Mother of Pearl	/	Engraving	2000	40	40	0.5	300	/
Mother of Pearl	3mm	Cutting	40	10	90	2	/	2
Paper	/	Engraving	2000	50	50	0.5	300	/
Paper	0.6mm	Cutting	100	10	90	2	/	2
Mylar	/	Engraving	2000	50	50	0.5	300	/
Mylar	1.5mm	Cutting	70	10	90	5	/	2
Anodized Aluminum	/	Engraving	2000	40	40	0.5	300	/
Coated Metals	/	Engraving	2000	40	40	0.5	300	/
Ceramic	/	Engraving	2000	60	60	0.5	300	/
Glass	/	Engraving	2000	90	90	0.5	400	/
Marble	/	Engraving	2000	60	60	0.5	300	/
Tile	/	Engraving	2000	60	60	0.5	300	/

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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