

FilaFind.com - Material Supplier Database Submission Process

Thank you for your interest in helping produce the first global consumer 3D printing filament database application where consumers can discover and purchase filaments around the world. My goal is to make this tool useful to consumers and producers alike, pushing the industry forward and bringing awareness to the immediate tangible potential of 3D printing today.

The database is stored in a human-readable format, which is then parsed using software to produce a datastructure more suitable to the application's needs for filtering and sorting. It is currently a simple database, but as it grows there is potential to include more material properties that consumers could use to make better educated material choices for their next project.

Below I will outline the material property specification, as well as some detailed sections on available parameters for three special ranges (**tags**, **bed_material**, and **color**). I have also included **example_materials.zip** which contains a **.xls** and a **.csv** version of the data input I need to input into the system for it to parse properly and display on the web application. Finally, I share with you options currently available for submitting the data for review/verification/and inclusion in the database.

If you have any questions please reach out to me at contact@markedmethod. Thank you for your interest in helping build this platform. I hope it at least gets the word out for all the hard work suppliers around the world are doing to bring cutting edge materials to the consumer level.

Material Property Specification:

Name	Type	Range	Description
version	integer	1 - 10	revision of material
name	string	40 chars	unique name of material
technology	string	FDM, etc.	type of technology [FDM, DLP, SLA, etc.]
composition	string	ABS, etc.	abbreviated polymer components
cost	float	1.00 - 200.00	price expressed in USD \$ / kg net material
manufacturer	string	e.g. "Dremel"	supplier brand name
website	string	e.g. "http://..."	root url for your filament store
color	string	see details	see detail in section AA
opacity	integer	see details	1 = opaque; 2 = translucent; 3 = transparent
tags	string	see details	see detail in section BB
filament_diameter	float	1.75, 2.85, etc.	nominal mean filament diameter
filament_extrusion_to_flow_multiplier	float	0.50 - 2.00	multiplier to apply to filament_diameter to ensure a 1:1 filament volume in to volume out
temp_extrude_default	float	100 - 400	default most reliable extrusion temp in degC
temp_min_extrude	float	100 - 400	lowest extrusion temp in degC for normal print speeds
temp_max_extrude	float	100 - 400	highest extrusion temp in degC for normal print speeds
temp_bed	float	25 - 140	ideal heated bed temp in degC to promote maximum surface adhesion strength
min_nozzle_diameter	float	0.25 - 1.00	minimum nozzle diameter in mm allowable for driving material through without clogs
extruder_fan_speed	integer	0 - 255	pwm value for driving extruder cooling fan
bed_material	string	see details	see detail in section CC
buy_now	string	e.g. "http://..."	url of specific material purchase page

Section AA - Color Specification

Color should be specified in the form of an HTML color code expressed in lower-case hexadecimal characters. e.g. "red" becomes "ff0000" I recommend using a color-picker utility [like this for chrome](#) to get a color from your images that most represents your product's appearance. I have plans to include transparency and texture in the future for the button preview, but not yet.

Section BB - Tag Specification

Tags are specifications that highlight why a particular material is special or unique. I allow up to 3 tags per material, separated by commas. Since I have to reign in the variability in the market I have currently restricted the acceptable tags to below options. If you believe you need a different tag please notify me and see if it is meaningful to add at this point in time. Currently available tags are:

bulk	heat-resistant	flexible	food-safe
composite	metal	strong	organic
wood	dissolvable in D-limonene	stiff	odor-neutral
ceramic	dissolvable in water	impact-strength	glow-in-the-dark
carbon-fiber	ductile	resilient	magnetic
hydrophillic	tough	stretchy	transparent
translucent	sparkly	neon	black-light
photochromatic	thermosensitive	low-friction	

Section CC - Bed Material Specification

One of the most significant problems with consumer 3D printing is the difficulty in getting materials to initially stick, and then continue to stick properly to a build surface. This specification is like tags in that I allow up to 3 bed materials to be listed, separated by commas. If you believe you need a different bed material please notify me and see if it is meaningful to add at this point in time.

blue tape	glass	glue stick	kapton tape
abs slurry	acrylic	hair spray	buildTak

Section DD - Submitting Data for Specification

Please note, it may take some time before your materials get added. The benefit of this is it allows you to potentially catch some errors before they are added to the database. If you submit an error and would like it updated please include the material spec in question in a reply email to me. Don't forget to bump the version up if you make such changes so keeping track of modifications is possible. This will be important if you release new formulations or other changes that affect the end product the consumer will be working with.

Please send data in either .xls, .xlsx, or .csv format to contact@markedmethod.com