

3D Printing - Evaluating Particle Emissions of a 3D Printing Pen

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URL

jove.com/video/61829

Materials

Name	Company	Catalog Number	Comments
3D printing pen	lovebay		bought on: www.amazon.de
ABS black	Filamentworld	ABS175XBLK	bought on: www.filamentworld.de
ABS blue	Filamentworld	ABS175XSB	bought on: www.filamentworld.de
ABS glow in the dark	Formfutura	ABS175XGID	bought on: www.filamentworld.de
Alcian Blue	Sigma Aldrich, Germany		
Collodion	Electron Microscopy Services GmbH, Germany		
CPC	TSI Inc.	Model 3775	other particle tracking measurement devices can be used
Hydrogen peroxide	Merck KGaA		30%, suprapur
Imaging camera	Olympus, Germany	Veleta G2 camera	
iTEM software	Olympus, Germany		
MilliQ water	Merck KGaA		Milli-Q® System
Nitric acid			69%, In-house cleaned by distillation
PLA black	Filamentworld	PLA175XBLK	bought on: www.filamentworld.de
PLA blue	Filamentworld	PLA175XSBL	bought on: www.filamentworld.de
PLA clear	Filamentworld	PLA175XCLR	bought on: www.filamentworld.de
PLA red	Filamentworld	PLA175XRED	bought on: www.filamentworld.de
PLA white	Filamentworld	PLA175XWHT	bought on: www.filamentworld.de
PLA wiht Aluminium	Formfutura	GPLA175XTSI	bought on: www.filamentworld.de
PLA wiht CNTs	3DXTech	3DX175XPLAESD	bought on: www.filamentworld.de
PLA with Copper	Formfutura	MFL175XCOP	bought on: www.filamentworld.de
PLA with Steel	Proto-Pasta	PP175X500SST	bought on: www.filamentworld.de
SMPS	TSI Inc.	Model 3938	other particle tracking measurement devices can be used
TEM	Jeol GmbH, Germany	Jeol 1400 Plus	
TEM grids alternative (plastic coated): Formvar-Film auf 400 mesh Cu-Netzchen	Plano GmbH, Germany	SF162-4	

TEM grids: 400 mesh 3.5 mm copper grids	Plano GmbH, Germany		
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