LulzBot Filament Testing Report

Manufacturer: Polymaker
Filament Type: PC-Max
Tested By: Bam
Date: 5/12/16

Ease of use: 10/10
Appearance: 10/10
Color consistency: 10/10
Print temperature Range (C): (250-270/80-100)
Variance in diameter: (2.83-2.86)
Minimum bend radius: NA, can tie in knot
Prints using current Lulzbot profiles/temps: No, but preliminary profiles are in experimental branch

Manufacturers Specifications:

Polycarbonate Content > 70 %
Printing Temperature: 250-270°C
Auto ignition temperature: 454°C

General Notes:

- The filament printed extremely well with the recommended print settings at both 0.38mm layer height and 0.15mm LH.
- The filament has a nice glossy finish and great inter-layer adhesion printing at 260C with no fan.
- This PC showed zero warping printing a spool arm full build volume on a mini
- No PEI treatment necessary, this sticks well to PEI as low as 80C
- Great packaging, feels very high end. The spool comes with a small booklet with tech specs and print setting recommendations, very nice.
- The spool is great, clear with clearly marked filament name, print speeds and temps and an awesome dial gauge to indicate how much filament is left in grams.
- Retail pricing will be $39.99/0.75kg
- Glass transition temperature is over 110C, making this a replacement for ABS in any high heat applications.

Health or environmental risks:

At combustion, CO_2, CO released

Health: Molten material will produce thermal burns on skin and cause eye damage.
Carcinogenicity: No info available
Environmental: Not Available

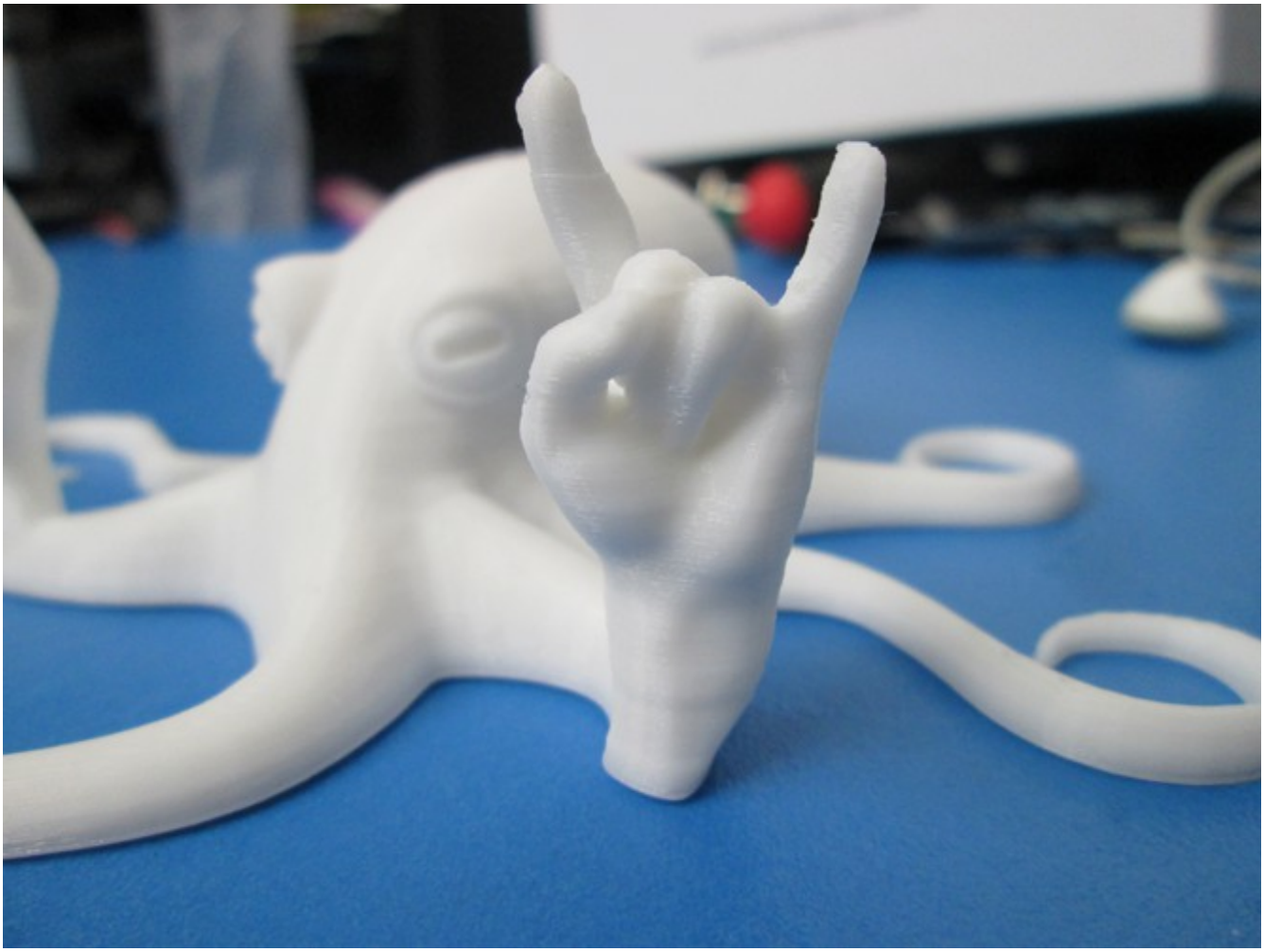
Environmental precautions and protective procedures - Prevent entry into waterways, sewers, basements or confined areas.

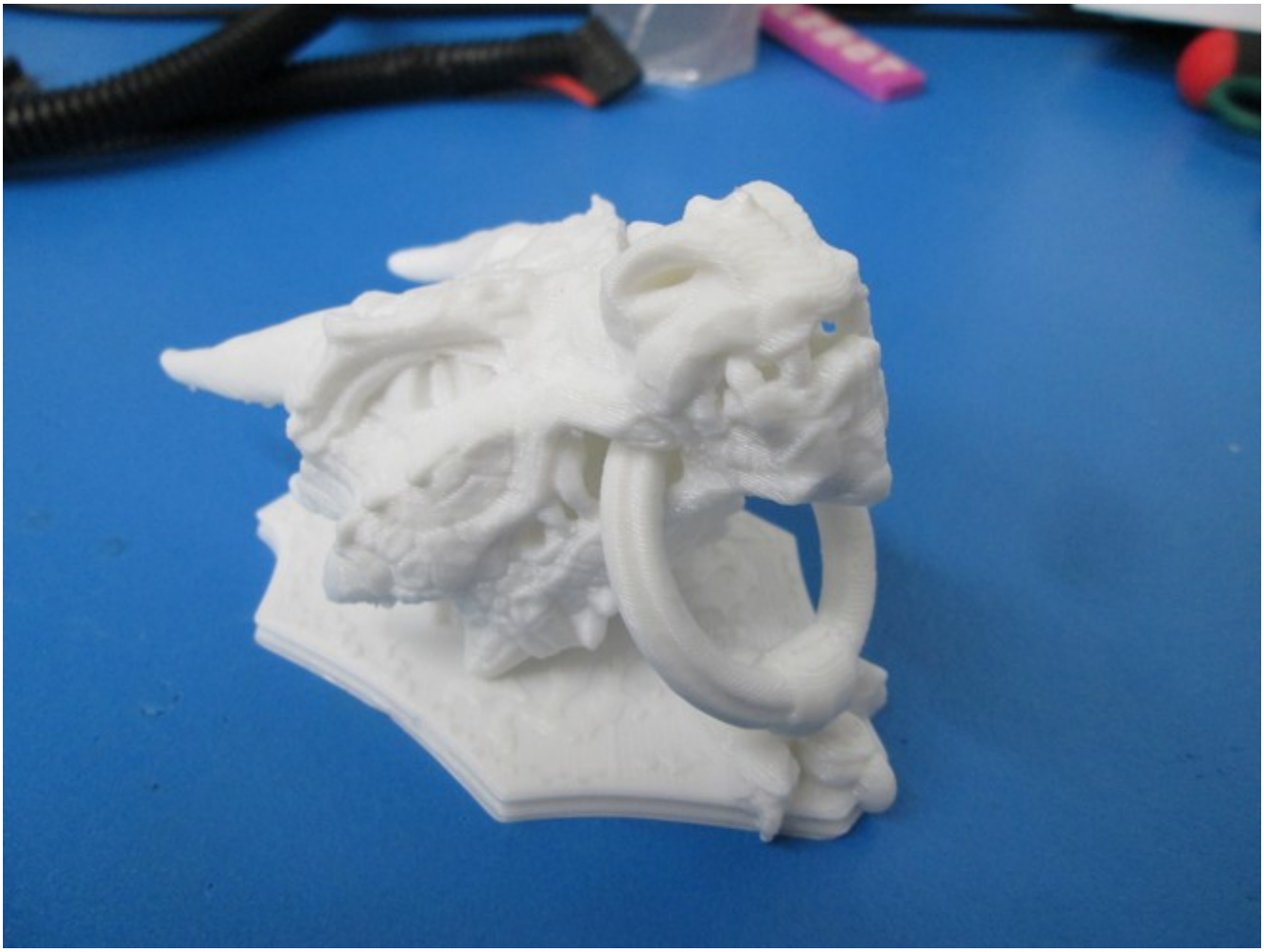
Use in well ventilated area.

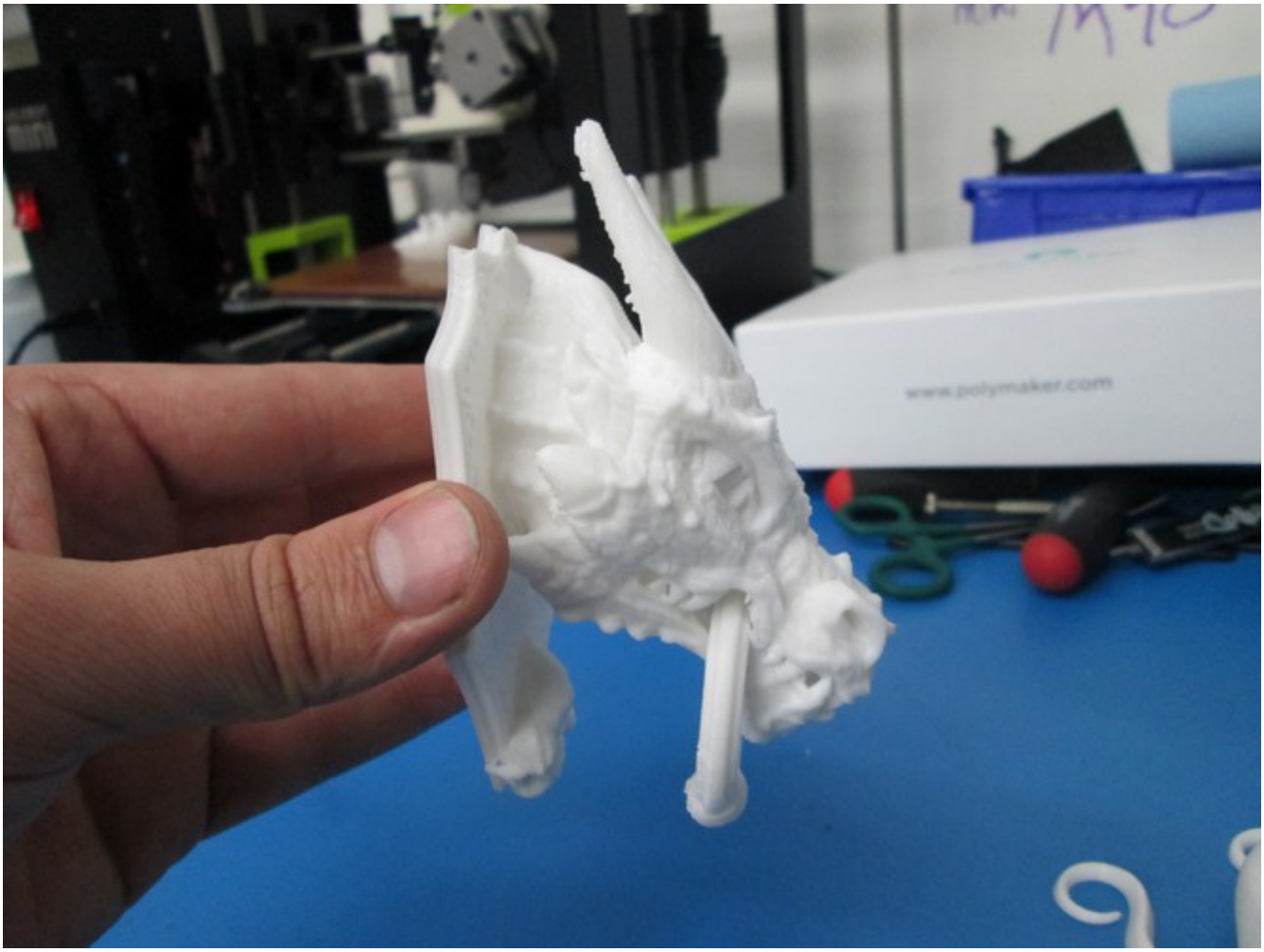
Disposal Options:

Disposal method - Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Disposal precaution - Consider the requirements of any applicable waste treatment management regulation.

Recommendation:
I recommend that we carry this filament and promote it as a default material for high strength applications. This has been the best experience I've ever had with any type of filament by far. The packaging is the best I've seen from any manufacturer, the filament remaining sticker on the spool is simple and genius. Most impressively, this polycarbonate shows no warping while maintaining the heat resistance and strength that people expect from PC. I am beyond impressed with this filament and will be buying some personally as soon as it is released.






www.polymaker.com