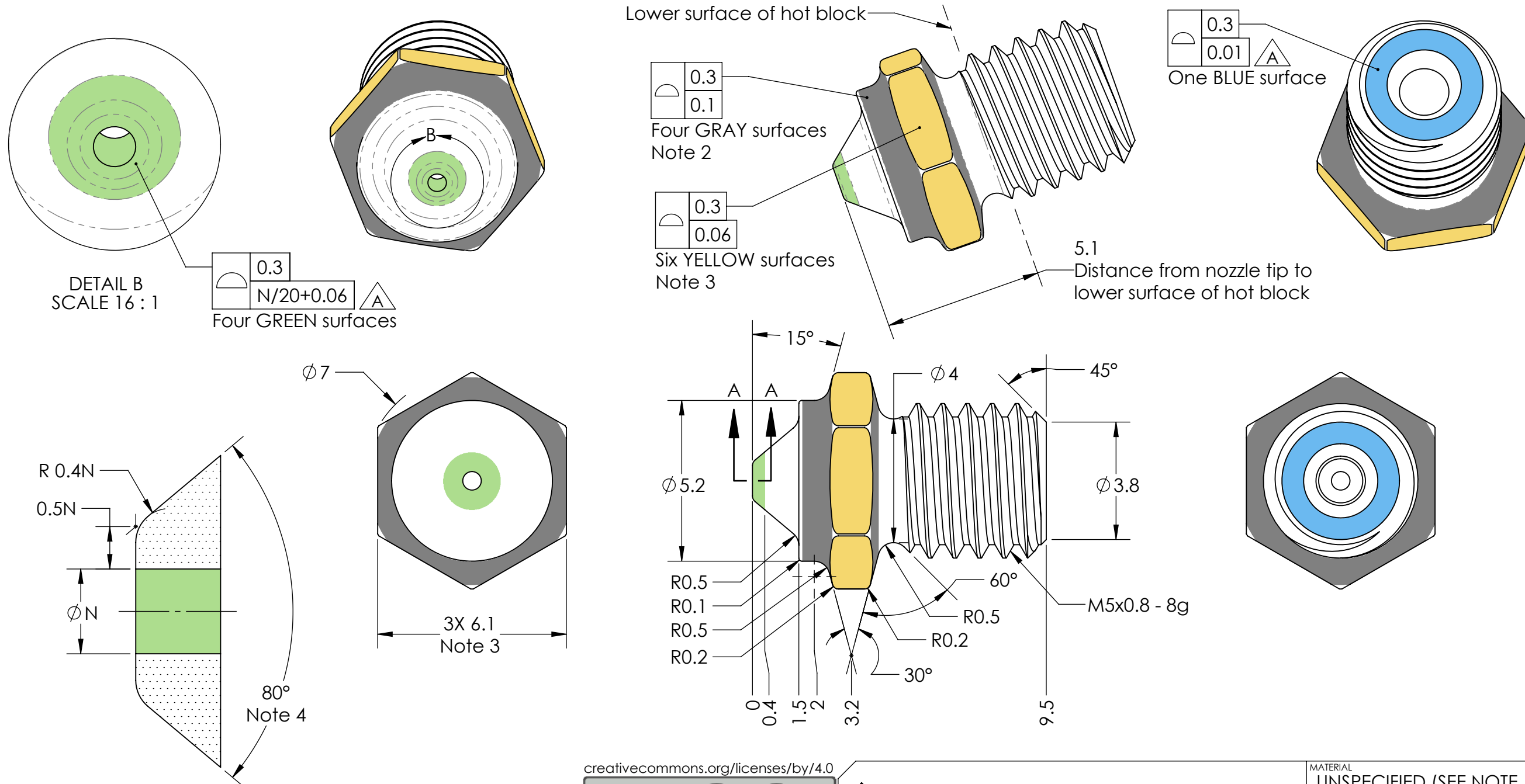


- This drawing specifies external geometry for FFF nozzles of the **Free and Open Source Insulated Nozzle (FIN)** standard and explains the standard's design intent. The standard does not specify materials or internal geometries of the nozzle. Slice Engineering encourages manufacturers to experiment with materials and internal geometry to satisfy all applications
- Four GRAY surfaces contact and retain a silicone rubber boot (not shown), which provides thermal insulation and prevents molten plastic from fouling the wrench flats. After every nozzle change, apply Slice Engineering's Plastic Repellent Paint in and around the nozzle-boot interface to help prevent plastic residue bonding the boot with the nozzle
- The specified 6.1 basic dimension across wrench flats (YELLOW surfaces) and tolerances provide compatibility with most 6 mm and 1/4 inch 6-point sockets. Slice Engineering recommends selecting a material with a minimum hardness of Rockwell C 25 (Brinell 250) to prevent edge deformation when torqued to 1.5 Nm with a 1/4 inch 6-point socket. Alternatively, a 6.4 basic width across wrench flats with the same tolerances may be used to accommodate softer materials if compatibility with a 6 mm 6-point socket is not required. Slice Engineering's silicone boot designs will accommodate a basic dimension across wrench flats in the range of 6 to 6.4
- The specified 80° tip cone angle accommodates $\varnothing N$ (orifice diameter) up to $\varnothing 1$. For $\varnothing N$ greater than $\varnothing 1$, reduce the tip cone angle as necessary
- Interpret dimensions and tolerances per ASME Y14.5-2018. Drawing views are projected with third-angle projection
- Single-segment feature control frames (FCFs) and the upper segment of composite FCFs apply simultaneously
- FCF segments denoted by a letter-in-triangle (example: $\triangle A$) apply simultaneously with FCF segments denoted by the same letter-in-triangle
- Ra shall not exceed 4% of the form requirement. ASME B46.1-2009 Table 3-2 specifies cutoff values
- Dimensions are given in millimeters. Default tolerances: $\oplus \varnothing 0.1 \text{ (M)}$ for screw threads. $\square 0.3$ for surfaces
- Tolerances apply after application of any specified plating or coating

REVISION HISTORY		
REV	DCN	DATE
00		2024-02-15
A		2024-06-05



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MATERIAL UNSPECIFIED (SEE NOTE 1)	DESCRIPTION FIN STANDARD SPECIFICATION
FINISH UNSPECIFIED (SEE NOTE 1)	ITEM NUMBER NOT APPLICABLE
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	REV A
	SHEET 1/1