**Table 5**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| MELT | DRIVE | DIAMETER | ORIFICE | MATERIAL | TEMP |
| V6 | Direct | 1.75 mm | 0.6 mm | PLA | 190 C |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Flow Rate (mm3/min)** | **Speed**  **(mm2/min)** | **Trial 1** | **Trial 2** | **Trial 3** | **Trial 4** | **Trial 5** | **Avg.**  **Value** | **Deviation**  **Avg. Value** |
| **200** | 83 | 1 |  |  |  |  |  |  |
| **400** | 166 | 1 |  |  |  |  |  |  |
| **600** | 249 | 1 |  |  |  |  |  |  |
| **800** | 333 | 333 |  |  |  |  |  | 1 |
| **1000** | 416 |  |  |  |  |  |  |  |
| **1200** | 499 |  |  |  |  |  |  |  |
| **1400** | 582 |  |  |  |  |  |  |  |
| **1600** | 665 |  |  |  |  |  |  |  |
| **1800** | 748 |  |  |  |  |  |  |  |
| **2000** | 832 |  |  |  |  |  |  |  |
| **2200** | 915 |  |  |  |  |  |  |  |
| **2400** | 998 |  |  |  |  |  |  |  |
| **2600** | 1081 |  |  |  |  |  |  |  |
| **2800** | 1164 |  |  |  |  |  |  |  |
| **3000** | 1247 |  |  |  |  |  |  |  |

**Notes/Observations:**

* Spring Tension: (~58.70 mm for 3mm) (~58.90 mm for 1.75mm)
* 800 flow, gradient evident

**Specifications:**

* Unknown 1.75mm Red PLA

**Failure Mode:**

* 1: Best extrusion, constant, even (despite air bubbles)
* 2: Failure mode beginning to show, somewhat constant extrusion (minor)
* 3: Does not function well, motor skips steps (not enough torque? Not enough power?) loud grinding­ noise, small spinning (major)
* X: Complete failure, does not extrude at all (fail)