

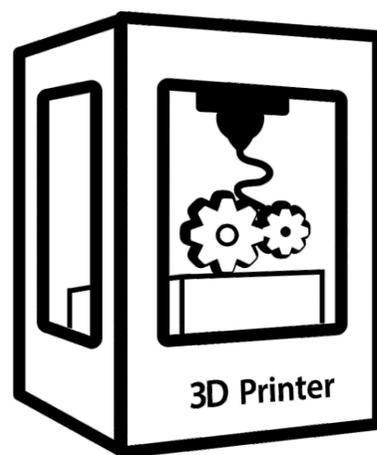
3D Printing Series - Introduction -

3D Printing

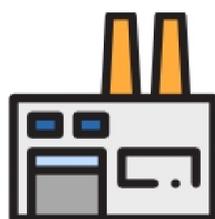
3D printing is a rapid prototyping technology that uses adhesive materials such as powdered metal or plastic to construct objects by stacking them layer by layer.

Not only used in mold manufacturing, but also the direct manufacturing of products, especially **high-value applications** (such as hip joints, teeth & some aircraft parts), which means the popularization of the "3D printing" tech.

PLA, ABS, TPE, PC, PA, metal, and carbon fiber are the most commonly used materials in the field of 3D printing; **each material has its characteristics**, in order to **achieve higher quality & effective** use of products materials increase productivity, and it is necessary to have a deep understanding of the density of raw materials and products.



Density & Quality



When talking about the properties of 3D printing materials, it is necessary to test the overall density. It is not only due to the number of pores and their distribution, but also has a significant impact on the strength, elastic modulus, wear resistance, and other important properties of the material.

The impact of raw material quality on 3D printing?

1. Production cost and quality considerations:
According to the Archimedes' principle: $D=W/V$ The particle size and density of materials will affect the production length of the line.
2. Plastic impurities with lower purity will become noticeably obtrusive.



What MatsuHaku Do:

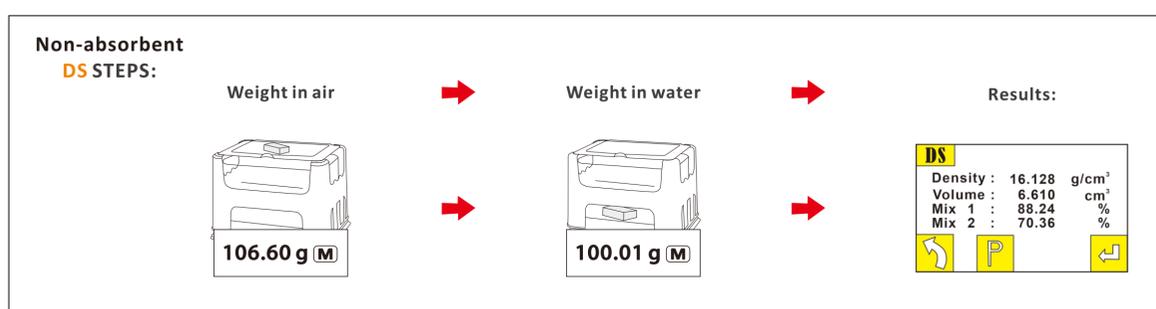
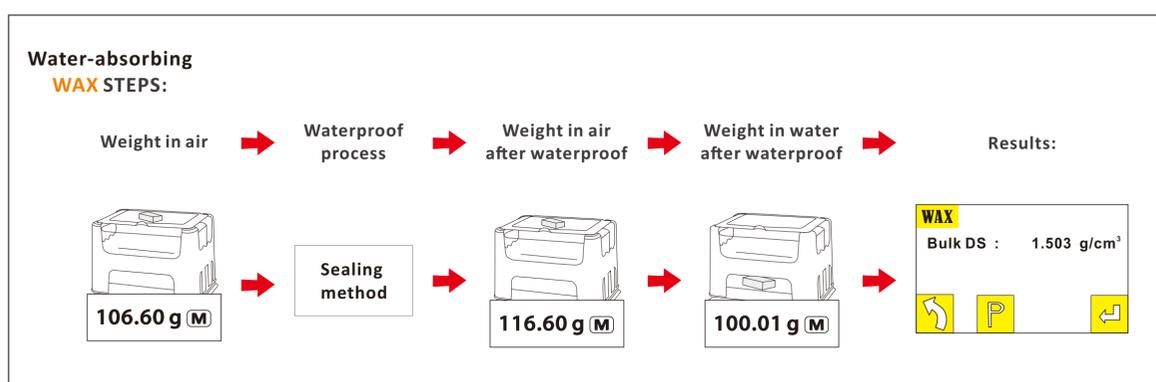
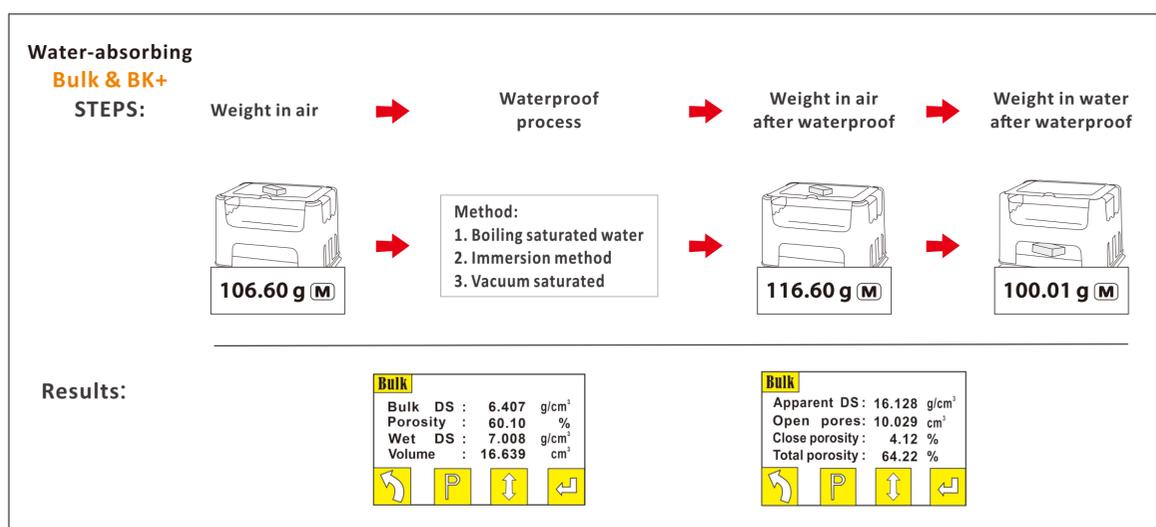


Based on the density of 3D printing materials, we specially launched the models which specifically test the performance of water-absorbing and non-absorbent materials.

Taking **water-absorbing**, ceramic 3D printing products can also directly read **Bulk density, Wet density, Porosity, Absorption, Apparent DS, Open pores, Close porosity, and Total porosity**.

Non-absorbent materials and other **polymer 3D printing products** can also directly display product **Density, Volume and Mixing ratio** mode detects the mixing ratio of the polymer wire.

If you want to **confirm the quality**, the very important point is to **know the density of it**.



MatsuHaku Density Tester Keep You Aware Of

1. **Reduce** the cost and the **Defect** loss
2. Fit the international **Standard**
3. Make sure the quality **Stable**



**With MatsuHaku Density Tester
Quality control is more easier than you thought**