



Supported blasting media for the Classic Powershot C

V1.0 / 27.05.2021

This document showcases the differences in our supported blasting media. It is supposed to assist in choosing the best media for your application, when cleaning with the classic Powershot C model.

New generation classic Powershot C models support the use of two blasting media, glass beads and PolyShot PC4, whereas first generation Powershot C may only be used with glass beads.

The process of cleaning parts with glass beads is a common industry standard with reliable process results. However, in 3D printing the use of glass beads is subject to severe limitations regarding the process parameters in order not to negatively influence subsequent steps like coloring.

A gentler and more surface friendly cleaning can be achieved with the proprietary PC4 plastic blasting media. Parts made of process challenging materials and difficult geometries can be processed without the negative side effects of glass. Thanks to a broader range of adjustable process parameters like pressure and process time more vibrant colors are achieved during coloring.



















Overview

	Glass blasting media	PolyShot PC4 blasting media
Description	Glass beads	DyeMansion blasting media, specially developed and purpose-built for the cleaning of 3D-printed parts.
Characteristics	200-300 μm Silicate glassbeads	400 μm Plastic blasting media
Blasting pressure recommendation in Powershot C	2,2 bar	2-5 bar

General recommendation

- ✓ Designed for 3D printing, the properties of PC4 make it the right choice for depowdering components in most applications. To support you in making the right decision for your application please see the media characteristics table on the next side.
- ✓ Regardless of which abrasive is used, it is essential to maintain the correct machine settings that can be found in the operating manual to obtain suitable results.

Most important advantages and characteristics of the different blasting media

Characteristics	Glassbeads	PolyShot PC4	Explanation
No breaking of media			PC4 is more resistant to wear and less vulnerable to breaking. Gentle surface treatment with improved parts quality.
Wide pressure variation			PC4 is applicable for high & low pressure. Beneficial for complex geometries without burn-marks on the parts
Complex geometries			PC4 enables longer blasting times without damaging/burning the surface of the parts
Parts out of process challenging materials			Efficient cleaning of TPE and other materials with high and low pressures using PC4. More control with MJF parts resulting in brighter colors.
Depowdering of small imprints/gaps			Broken glass fragments offer the potential to depowder very small imprints/gaps. PC4 is limited by grainsize and eventually gets stuck in gaps smaller than the media.
No residue from broken blasting media			Shattered glass fragments can remain in the surface of the parts with a negative impact on coloring results. No residue from PC4.
No residual dust			Broken glass media reduces dust remainders on surface however this negatively affects subsequent coloring results. Potential fine dust residue may remain on the surface of PC4 cleaned parts, but has no influence on the following process steps. Results for both media are highly dependant on material, number of parts, total surface and blasting parameters.
Color reproducibility/brightness			Glass may have a negative effect resulting from broken glass fragments in the surface. PC4 enables a more vibrant and reproducible color resulting from a gentle surface treatment.
Media consumption			Significantly less media consumption with PC4 compared to glass.