

# WARRANTY 3DPG PRODUCTS

Pikus is the leading manufacturer of 3D Printed Poly-Grout products in North America. We offer a wide range of highly customizable products, as well as the option to create your own one-of-a-kind 3D Printed design. At Pikus, we maintain a commitment to produce outstanding products with only the best materials on the market for large-scale 3D printing.

#### Our Commitment to Quality

3D Printing has become one of the fastest and most desirable methods for creating customized site furnishings. It is important to understand the product expectations and characteristics of 3DPG pieces. With 3DPG, surface and cosmetic expectations are especially critical to create a positive experience, regardless of subjectivity. Pikus desires to set such expectations, and define general material limitations while maintaining excellent products and services.

We are committed to maintaining quality and product transparency.

#### **Product Testing and Inspection**

Pikus follows strict, regular testing protocols for each 3DPG Product. Our processes are based on recommendations from SIKA and the BIFMA Organization. Surface inspection begins as soon as the product begins printing, searching for any deformities or mortar issues. Each of our products then goes through rigorous BIFMA and functionality testing. Testing procedures may vary slightly based on product use. It is important to inspect and notify us immediately of any concerns when product arrives onsite. Do not store long term with packaging material intact, as this may impact the surface quality.

We ensure all 3DPG products can easily withstand the environment they are installed in.



ANSI/BIFMA X5.41-2021 Testing

#### **Design Process and Customization**

At the start of each project, all customization details will be sent out for approval, including desired coatings, dimensions, and Pikus Structures™ (i.e. seat backs, plinths, footers, etc.) . Samples are available upon request, however, due to the limited nature of samples it is recommended to view any samples from a distance of 20 feet for a more accurate representation of the final look.

For custom projects, our design team will carefully review all project details and requirements before modeling and rendering your project. Some designs may require slight alterations to allow for printer limitations. This generally occurs when there are sharp corners or if there is an overhang greater than 32° on your design. All custom orders will have renders provided to visualize the final look and product expectations.

General Design Considerations:

- Angles over 32° may have to be slightly altered to accommodate for printer limitations
- Sharp corners need to be slightly rounded out, as our current printing methods cannot achieve rapid directional changes
- Large pieces or overhangs can be achieved with multiple print pieces.

For finishes outside of our standard offerings (see QR code or link for more details), please put in a request with your sales representative. All finishes go through approval processes for quality insurance.



We provide a comprehensive design process to ensure the final product exceeds your expectations.

## Common Cosmetic Characteristics (Excluded from warranty)

The effects of the environment in which your 3DPG is placed may cause various surface marks, which will not affect the structural integrity of your pieces. In general, the surface should appear uniform when viewed from a distance of 20'. The most common effects of weathering and aging include, but are not limited to:



- Slight color variation
  - Due to the natural substances within our mortar, slight variation in color can occur over time. This generally occurs when products are exposed to harsh environments.



Example of original coloration



Example of discoloration due to excessive weathering exposure

- Non-structural hairline cracks
  - These cracks do not compromise the structural integrity of the piece.



Example of hairline cracks in 3DPG

- General use wear
  - This varies based on the purpose of the 3DPG piece
  - Includes scratches, dents, and stains that have built up due to continued use over time.



Example of grease stains on 3DPG from an outdoor grill

- "A" vs "B" Surfaces
  - Typically, horizontal surfaces will be cleaner than vertical surfaces due to the amount of exposure each side receives.
  - The "A" side is typically recognized as the top or bottom of your piece, and has the least amount of variation.
  - The "B" side includes all other sides, and typically has a greater amount of surface variation.
- Irregular print lines and small deformities
  - Due to the current methods of printing, some print lines may appear slightly larger than others.
  - The varying pressure applied throughout printing may cause some print lines to overhang slightly more than others.



Example of irregular print lines

For more examples of such common cosmetic characteristics, please email **create@pikus3d.com**.

These common cosmetic characteristics are excluded from warranty.



## Other Non-Rejectable Items (Excluded from warranty)

Damage from misuse or improper care is not covered in this warranty. Such damage commonly occurs in the following ways:

- Calcium-chloride damage
  - Salt and de-icing chemicals can cause damage.
- Improper surface care
  - Avoid using harsh chemicals, solvents, and pressure washing
- Loading and unloading damage
  - Use special care when offloading. Avoid abrupt movements and utilize all pick points. Use foam to protect the bottom from damage.
- Install damage
- Items installed and later rejected
- Chipping where hardware is installed
  - Use proper procedures when using or installing hardware, including pick points.
- Cracking from improper soil drainage
- · Packing marks as a result of long-term storage

Such damage will void your product warranty.

# Rejectable Defect (Included in warranty)

Any defect that compromises the structural integrity of your 3DPG piece, outside of industry standards or acceptable appearance (from a distance of 20' with the unaided eye) is considered a rejectable defect. Some rejectable defects include the following:

- Structural Cracks
  - Cracks that pose a structural concern or compromise the integrity of the structure for its intended use.
  - To qualify for warranty, cracks must be greater than
     3mm in width or 5" in length
- Excessively large pitting
  - Greater than 1.00" in diameter
- Large chips
  - Chips less than .5" can be repaired with 3DPG mortar.
- Extreme abnormal variation in print lines or pattern
- Rust stains upon arrival
- Visible repairs
  - Minor repairs may be made before shipping. In general, any repairs should look clean and uniform from a viewing distance of 20'.

These damages are covered by warranty. Please contact Pikus directly for all replacements.



Example of cracks compromising structural integrity

#### Warranty Specifications

Pikus warrants all PikusPrinted™ products to be free from defects in material and workmanship for a period of three (3) years from the date of the product invoice. This warranty does not apply to any damage as a result of accident, product alterations, misuse, tampering, negligence, or abuse. Pikus will, at its discretion, repair, replace, or refund the purchase price of any items found defective upon inspection by an authorized Pikus service representative.

Pikus guarantees a warranty on all defective products.

#### Multi-Piece Projects

If a project contains multiple (2+) pieces, only the compromised pieces will be evaluated for replacement. All authorized Pikus service representatives will evaluate subsequent pieces for further damage upon arrival. All damaged 3DPG pieces may be claimed for warranty.

Pikus will replace damaged pieces individually.

#### **Commonly Asked Questions**

How do I order a replacement piece?

- To order a new piece under warranty, please reach out to your sales representative, or contact create@pikus3d.com with the project details and identifying information regarding the replacement piece.
- If a new print is desired, which is not under warranty, please reach out to your sales representative for a new quote.

How long will a replacement piece take to arrive?

- Your new print will be started as soon as it is ordered.
   Average times from print to ship average around a month. Shipment times will vary based on location.
- You will be sent a tracking number as soon as the print is shipped out.

If you have any further questions or concerns, please contact a sales representative at **create@pikus3d.com** or visit our website **www.pikus3d.com** for more information.

Please refer to Pikus resources for warranty information.

### **MAINTENANCE**



## INSTRUCTIONS

#### General 3DPG Surface Maintenance

Duration	Recommended Maintnance
Monthly	Wipe of all grime and debris with a rag and light detergent
Yearly	Re-seal your 3DPG Print using concrete sealer of your choice. Follow manufacturer's recommendations following the first round of sealant.
	Gently clean your 3DPG Print using a hose sprayer. Clean off all grime and debris from your print.
5-10 Years	Repair any chipped edges or small damages using Pikus 3DPG materials.

<sup>\*</sup>Call Pikus 3D if any product recommendations are needed or if you have any questions regarding the care of your 3DPG Product.

#### Fountain Maintenance

Duration	Recommended Maintnance
Daily	Check water levels of your fountain to ensure the pump remains fully submerged.
	Test water chemistry using typical pool/fountain testing kits. Add chemicals as needed per your kits recommendations to bring the water into balance.
Bi-Weekly	Apply algicide to the water. After first application, follow the algicide manufacturer's recommendations.
Monthly	Wipe the inside of the fountain clean with a brushing with a soft white bristle brush and rinsing with water and light detergent. Clear any fountain debris.
6-12 Months	Replace the filter for your fountain with a 4.5"x10" 20 micron filter. Ensure the filter is properly clean. Follow all filter manufacturers recommendations for replacement and cleaning.
Winterization (Complete before a hard freeze)	Shut off all water sources for the fountain.
	Fully open both the autofill and manual valves to the pump and drain all water from each level of your fountain.
	Fully open both the autofill and manual valves to the pump.
	Disconnect and drain the filter. Bring the filter indoors for winter storage.
	Disconnect the 2" pump connections and ensure all water is drained out of the pump and pipes.