Can you waterproof a 3D print with spray?

Asked 3D Content Team
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Abstract. Yes, for parts without water pressure: Prusa sprays acrylic varnish inside and out a few times. Flex Seal needs 24 to 48 hours to cure and is not for drinking water.

Keywords: waterproofing, watertight, pla

Table 1. Spray options, coats and cure times

Spray	Class	Coats	Wait between coats	Ready	Maker's water limit
Flex Seal Spray	rubberized sealant	multiple even coats until all cracks and holes are filled	24 to 48 hours	fully cured in 24 to 48 hours	normal hydrostatic pressure such as rainwater, not extreme pressure; not for drinking water
Plasti Dip spray	peelable rubber coating	4 to 5 on average, 10 to 12 mils (thousandths of an inch) in all	30 minutes minimum	4 hours minimum before use	protects against moisture; not for items chewed or put in the mouth
Rust-Oleum LeakSeal Flexible Rubber Coating	rubberized sealant	2: a light coat, then a heavier one	15 to 30 minutes	full cure in 24 hours	not recommended for continuous water immersion
Rust-Oleum Specialty Lacquer, Gloss Clear	acrylic lacquer	two or more light coats	a few minutes; recoat any time	fully dry in 30 minutes	no water or immersion statement
Rust-Oleum 2 in 1 Filler and Sandable Primer	filler primer	two or more light coats	recoat after 10 minutes	touch dry in 10 minutes	none: made to fill minor imperfections under a topcoat, not to seal

1 Can you waterproof a 3D print with spray?

Yes, for parts that hold or shed water without pressure, if you build up enough coats. Prusa Research seals vases by spraying clear acrylic varnish inside and out a few times. Rubberized sprays such as Flex Seal take several coats and 24 to 48 hours to cure, and Flex Seal rules out drinking-water use.

1.1 Spray options, coats and cure times

Figures come from each maker's own directions or technical data sheet, at about 70 °F (21 °C) and 50 percent relative humidity for the Rust-Oleum products. All five makers say cooler air means a longer wait.

1.2 What Prusa's watertight tests found with spray

Prusa Research's first watertight post calls clear acrylic varnish the simplest way to make a vase waterproof: spray the model outside and inside a few times and let it dry. In part 2, the author reports using an acrylic clear coat several times on vases with no problems and advises several layers for anything that must be watertight.

Prusa took no sprayed part underwater. The coating it depth-tested was epoxy, which made a leaking PETG (glycol-modified PET) box fully watertight at 20 m. Neither post tests Flex Seal or Plasti Dip, so their makers' sheets are the only data for those.

1.3 Flex Seal on a 3D print

Flex Seal lists plastic among its surfaces, so a print is within its stated use. Its directions:

- Clean and dry the part, then spray from 8 to 12 inches in an even, sweeping motion.
- Keep the can above 60 °F (about 16 °C).
- Wait 24 to 48 hours before the next coat.
- Add coats until every crack and hole is filled. If light passes through the coating, it needs more.
- Test only after the full 24 to 48 hour cure.

Flex Seal Clear is a thinner spray than the original, and its maker warns it may need more coats. The FAQ rates the coating for normal hydrostatic pressure such as rainwater, not extreme pressure.

Anything under more pressure than rain, such as a plumbing fitting, falls outside that rating. The water pressure page covers O-rings and threaded fittings for those parts.

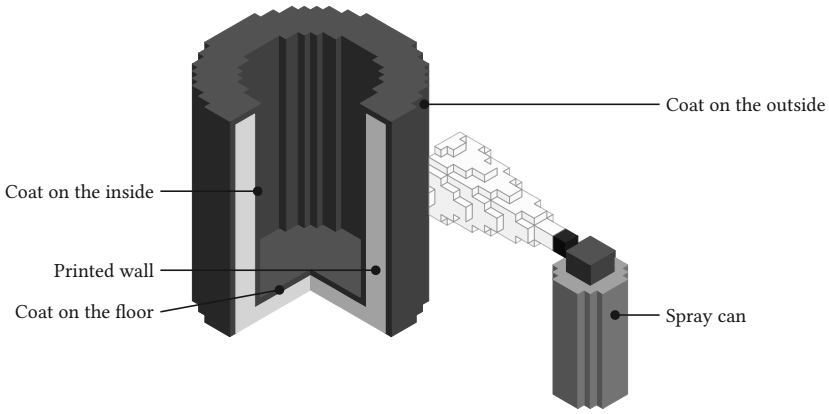


Figure 1. Prusa seals a vase by spraying clear acrylic varnish on the outside and the inside a few times and letting it dry.

1.4 Will a spray stick to PLA, PETG or ABS?

None of these sheets mentions PLA (polylactic acid), PETG or ABS (acrylonitrile butadiene styrene). Flex Seal and Plasti Dip list "plastic" in general.

Rust-Oleum's LeakSeal names PVC (polyvinyl chloride), vinyl and fiberglass. Its lacquer names wood and metal. Both Rust-Oleum sheets say to lightly sand glossy surfaces first.

A primer helps where the maker offers one:

- **Plasti Dip Primer** raises adhesion by about 400 percent, its maker says, and is recommended on plastics for a permanent coat. It makes the coating non-peelable.
- **Rust-Oleum Plastic Primer** lists polypropylene, polystyrene, PVC, fiberglass and vinyl. Spray one thin coat, wait 1 hour before an oil-based topcoat or 4 hours before latex, and allow 5 to 7 days for full adhesion.

Watch the solvent on ABS and ASA (acrylonitrile styrene acrylate). The Specialty Lacquer carries acetone, methyl ethyl ketone and toluene, and Prusa's Knowledge Base says ASA dissolves in acetone. Spray a scrap print first and check that the surface stays firm.

1.5 Is a sprayed print safe for food or drinking water?

Not on the makers' word:

- **Flex Seal** does not recommend its coating for surfaces in direct contact with drinking water.
- **Plasti Dip** advises against items that may be chewed or put in the mouth.
- **Acrylic varnish** is not recommended by Prusa for food-safe models.
- **Rust-Oleum's sheets** make no food-contact statement at all.

A cup, bowl or drinking-water part needs a certified food-contact epoxy, covered on the epoxy sealing page.

1.6 How to spray-seal a print and check it

1. Print the part watertight first. Prusa's order is proper print settings, then a little post-processing. The perimeter counts are the starting point.
2. Clean, dry and lightly sand the surface.
3. Prime if the spray's maker calls for it on plastic.
4. Spray inside and out, with the coat count and recoat wait from the table.
5. Hold the part up to a light. Anywhere light shows through needs another coat.
6. Wait for the full cure, then fill it and leave it overnight on a dry paper towel. The leak test gives the pass criteria.
7. If it still weeps, move to brush-on epoxy, the coating Prusa found sealed a box that had leaked.

References

[1] Watertight 3D printing PT1: Vases, cups and other open models (Prusa Research blog). https://blog.prusa3d.com/watertight-3d-printing-pt1-vases-cups-and-other-open-models_48949/. Accessed October 10, 2026.

[2] Watertight 3D printing part 2: Airtight closable models (Prusa Research blog). https://blog.prusa3d.com/watertight-3d-printing-part-2_53638/. Accessed October 10, 2026.

[3] Flex Seal Spray, directions (Flex Seal Products). https://flexsealproducts.com/products/flex-seal. Accessed October 10, 2026.

[4] Flex Seal FAQs (Flex Seal Products). https://images.thdstatic.com/catalog/pdfImages/83/83a572f0-e254-4b7c-a22d-81442c46ac77.pdf. Accessed October 10, 2026.

[5] Plasti Dip Can and Spray, multi-purpose rubber coating (Plasti Dip International). https://www.plastidip.com/plasti-dip-spray. Accessed October 10, 2026.

[6] Plasti Dip Care and Use Manual (Plasti Dip International). https://images.homedepot-static.com/catalog/pdfImages/bd/bd40ec4b-6e73-45e6-aef0-407eeed002a0.pdf. Accessed October 10, 2026.

[7] LeakSeal Spray, Technical Data SRT-17 (Rust-Oleum). https://www.rustoleum.com/-/media/924AEB1AE7414AF4B5A309223374438D.pdf. Accessed October 10, 2026.

[8] Specialty Lacquer Sprays, Technical Data SPC-10 (Rust-Oleum). https://www.rustoleum.com/-/media/D9273BADDAFD4D368873CF24B40C64CE.ashx. Accessed October 10, 2026.

[9] Plastic Primer Spray, Technical Data SPC-26 (Rust-Oleum). https://www.rustoleum.com/-/media/2209A33F94D145C2A1D557ED68D9E46C.ashx. Accessed October 10, 2026.

[10] 2 in 1 Filler and Sandable Primer, Technical Data ATO-58 (Rust-Oleum). https://www.rustoleum.com/-/media/16048E1E03344C9C9D29F09EDED87B95.ashx. Accessed October 10, 2026.

[11] ASA (Prusa Knowledge Base). https://help.prusa3d.com/article/asa_1809. Accessed October 10, 2026.

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