

## ELIMINATE WET ONYX ISSUES WITH DRYWISE



### CHALLENGES OF ONYX

#### Moisture Absorption and Print Degradation:

Onyx, being hygroscopic, absorbs up to 2% moisture by weight. When printed wet, the absorbed moisture compromises the material's strength, dimensional accuracy, and surface finish, leading to weaker parts and poor-quality prints.

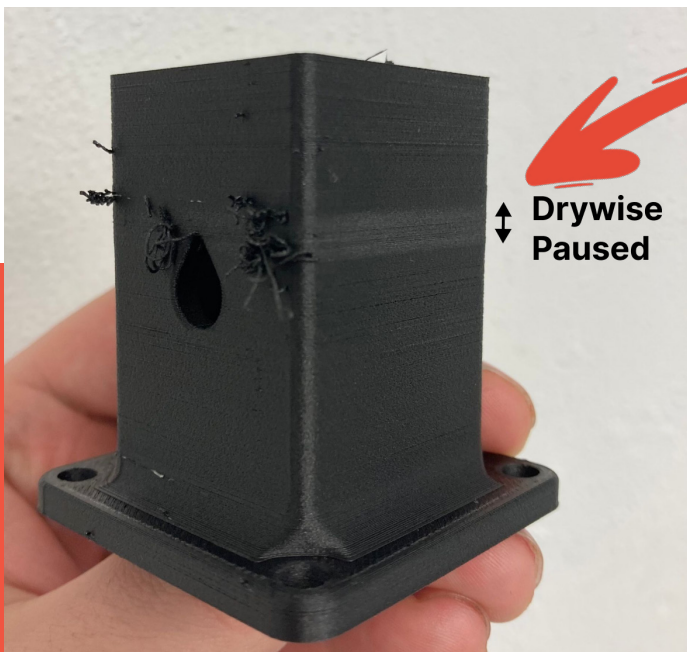
#### Material Waste and Time Loss:

Although Markforged recommends keeping Onyx dry in desiccant boxes, mishandling or environmental exposure can still cause moisture absorption. When this happens, users are often advised to purge or discard the material, resulting in significant waste and production delays.

### DRYWISE AS A SOLUTION

**Drywise is an industrial filament drying and quality control machine. It features in-line drying technology with sensors for precise process control.**

- ✓ Custom Onyx, Onyx FR and Onyx ESD profiles tailoring the drying parameters to the specific needs of the Onyx materials.
- ✓ Quick to set-up with its drying while 3D printing saving users valuable time.
- ✓ Full regeneration of Onyx without compromising material properties.
- ✓ Reduced material waste and enhanced reliability.



**Near-instant full regeneration of wet Onyx material!**

### DRYWISE IS COMPATIBLE WITH

- **Printers:** Markforged X7, X3, Mark Two, Onyx Pro, Onyx One.
- **Materials:** Onyx, Onyx FR, Onyx ESD. Others may be profiled\*. More materials are constantly added. Check [Drywise.co](http://Drywise.co)/materials for the updated list.

### Case study 1

3D Promakim, a leading Markforged reseller in Turkey, was losing over €12,000 annually due to moisture-compromised Onyx spools. Even with specialized storage bags, partially used spools absorbed humidity, and customs inspections during import further exposed materials to moisture. After implementing Drywise, they achieved zero material waste, saving both time and money. With Drywise’s precise drying capabilities, they eliminated waste and maintained superior print quality across all projects.

### Case study 2

Printpool, a 3D printing service based in Oxford, UK, faced significant moisture challenges with partially used Onyx spools, resulting in £2,000-£3,500 of waste annually. With Drywise, even moisture-damaged spools were fully regenerated, leading to zero material waste and superior print quality. The quick setup and real-time drying improved process efficiency and saved valuable time, allowing for faster project turnarounds.

“Before Drywise, material handling was a time-consuming challenge, with off-the-shelf solutions leading to unreliable results. Drywise streamlined our workflows, saved significant costs, and bolstered our confidence in delivering top-tier print projects on schedule. We now are offering Drywise as the go-to solution for every Markforged customer”

**Tolga Bolol,**  
BD Specialist, 3D Promakim

### Return on Investment

Drywise offers a clear return on investment for Markforged users. Once 8-10kg of Onyx is regenerated instead of discarded, the system cost is recouped. Additional savings come from reduced need for Pelican boxes, less time spent handling filament, and energy savings compared to traditional drying methods, making Drywise a cost-effective addition to any workflow.





Device	Active In-line filament dryer
Technology	Fused filament fabrication filament pre-processing
Interface	4,3" capacitive touch panel. Guiding LED lights
Filament path	Guided input and output filament path
Filament diameter	2.85mm or 1.75mm
Drying technology	Heated air and filament path, regulated by a sensor-driven feedback loop. Max temperature 200°C.
Sensors	Filament movement, heat and humidity sensors.
Compatible materials	<a href="https://drywise.co/materials">drywise.co/materials</a>
Dimensions	(inc. Desiccant container 590*500*145) (23"x20" x6")
Net Weight / Shipping Weight	10.5kg (23lbs) / 12kg (26,5lbs)

### PRE-DEFINED DRYING SETTINGS

Drywise features pre-defined drying profiles, fine-tuned for each material's unique properties, taking the guesswork out of drying. Unlike budget dryers, users don't need to know how wet the material is or how long to dry it — Drywise handles these uncertainties, ensuring consistent, reliable results and quality assurance with every print.

### DRYING PROCESS CONTROL

Drywise uses advanced sensor technology — including filament movement, heater, and humidity sensors — combined with material profiles to drive a precise drying algorithm. This ensures optimal drying settings, maximizing efficiency while preventing any damage to the material.

