

Operating instructions for the use of Xioneer VXL EX



1. General information

Xioneer VXL EX was developed specifically to dissolve the **Xioneer VXL 70, VXL 90, VXL 111, VXL 130** and **VXL 150** support materials in water. The detergent, dissolved in water, produces a mild alkaline which usually, together with the dissolved support material, can (in limited quantities) be disposed of via the wastewater. Please check your local regulations.

The temperature and the recirculation of the solvent bath have a great impact on the dissolving speed. A stirred and heated bath is always required. The quantity, design and position of the support material will also have an influence on the dissolving speed. Dissolving from cavities will take more time than dissolving parts that are easily accessible.

Please find below operating instructions for the correct handling and use of **VXL EX**.

2. Operating instructions

Despite its low corrosiveness, please follow the safety data sheet for the correct and safe use of **VXL EX**. Please always wear appropriate protective gloves, eye protection, and respiratory protection when using **VXL EX**.

When dissolving the support material, please pay attention to the softening point of the model material. To avoid deformation, it is important to keep the dissolving temperature 20 – 30 °C below the softening temperature (= glass transition temperature Tg) or heat deflection temperature (= HDT). Temperatures above can lead to deformations within the model due to residual stresses from the print job. If you do not know the Tg or HDT of your filament, please contact your filament manufacturer for information or test the material in advance.

The support materials **VXL 70, VXL 90, VXL 111, VXL 130** and **VXL 150** show very good adhesion to model materials such as PLA, PVB, PET(G), PCTG, ABS, ASA, TPU, TPC, PA, PC, PPS, PEEK, PEKK or ULTEM. This is required to prevent delamination from the model material. You can use appropriate tools to remove parts of the support structure to reduce the time needed for dissolution. ***Wear protective gloves*** to avoid cuts and ***use tightly closing eye protection***. Do not remove any support material mechanically from delicate structures to avoid damage to the model. Therefore, always finish with a solvent bath for the purpose of completely removing the supports.

How to proceed:

- Start using tap water to fill your dissolving device. Never put any powder in an empty tank.
- Use 4 l of tap water to dissolve 100 g of **VXL EX** (2.5 %).
- Heat the bath to the necessary temperature and start the recirculation process.
- You can add your models as soon as the bath has reached the correct temperature and **VXL EX** has been dissolved in water.
- The dissolving process usually takes between 0.5 and 24 hours, depending on the amount of **VXL supportmaterial** being dissolved and the geometry of the model. Check the dissolving process periodically. You will soon get a feeling for how much time is needed to dissolve which geometrics.
- 100 g of **VXL EX** can dissolve at least 100 g of support material. The more support material is dissolved, the slower the process of dissolution will be. Substitute a new solution for the old one.
- Please remove the model from the bath after the support material is fully dissolved. **IMPORTANT:** Afterwards, please rinse the model thoroughly under warm, running water to remove the remaining detergent and let dry completely. Depending on the geometrics you should rotate the model every few minutes to make sure the detergent can drain off.
- If white residues appear on the surface, please put the model into a warm (30 – 50 °C) water bath for at least one hour. To speed up the process you can add rinsing agent for dish washers.
- Before disposing the solution, it must be neutralized. For this, we recommend 5 – 10 g citric acid per litre of used up solution. When foam formation occurs, the solution has reached a neutral pH area.
- Please comply with local wastewater regulations to dispose of the solution including the dissolved support material. You can acquire our waste profile datasheet by contacting wecanhel@xioneer.com

Storage:

Store **VXL EX** in a tightly closed container to avoid agglutination and ensure proper functioning.

3. Safety data sheet

Be sure to completely read and understand the Safety Data Sheet!

The data below only reflect an excerpt:

Hazard pictograms:



Signal word:

Warning

Hazard statements:

H319: Causes serious eye irritation.

Precautionary statements:

P101: If medical advice is needed, have product container or Label at hand.
P102: Keep out of reach of children.
P280: Wear protective gloves/eye protection/ Face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P337+P313: If eye irritation persists get medical advice/attention.
P501: Dispose of contents/container to an approved waste disposal plant.

4. Contact details:

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