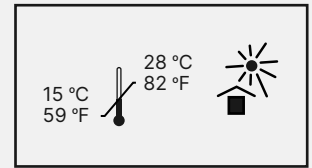


Resin Handling

Storage

Exposure of photopolymer plastics to any type of solar radiation or light should be strictly avoided. Resin-filled cartridges should always be stored between 15 °C und 28 °C irrespective of whether their seal has been broken. The storage instructions are printed on the packaging and the cartridge.



The resin has an expiry date printed on the packaging and the cartridge. Primeprint detects when the expiry date of the resin in the cartridge or vat has been exceeded and notifies the user.

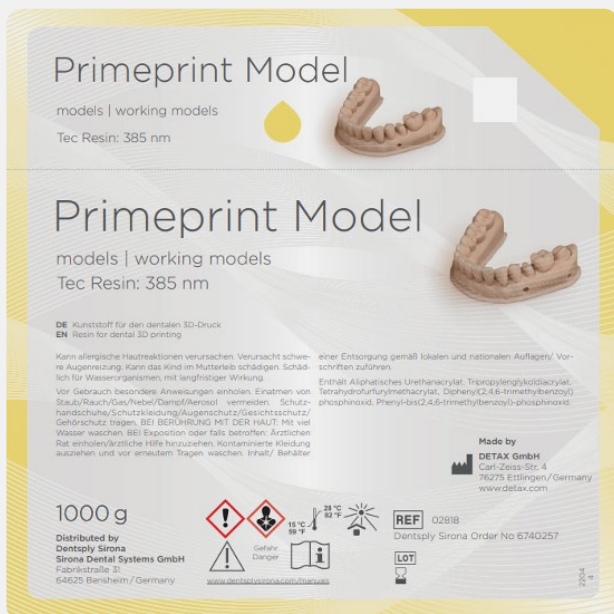


Figure 1: Packaging label



Figure 2: Cartridge label

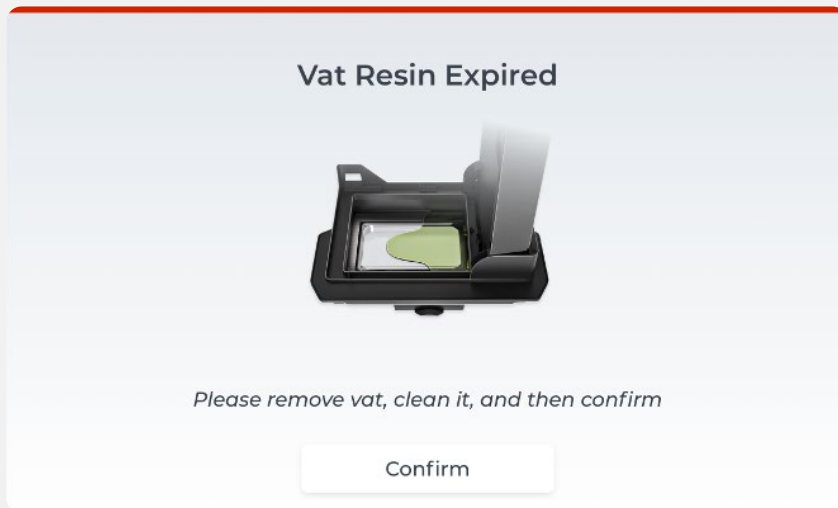


Figure 3: Message on the display



Figure 4: Message on the display

Opened cartridges

Once the seal label has been opened, the ventilation opening is exposed. The cartridge must be stored with its ventilation opening facing upward, as resin can otherwise leak.

→ Avoid applying pressure to the cartridge.

Material units

Store the material unit only with a cartridge inserted. Do not expose the material unit to sunlight and take basic steps to prevent UV light incidence on the material unit filled with resin.

Comissioning

There are a few steps to follow when installing a new cartridge. Primeprint will guide the user through the necessary steps.

1. Shake the cartridge for about 10 seconds so that the contents are well mixed.
2. The valve must be pressed in once to relieve the outlet valve for the first time. To do this, stand the cartridge upright and briefly press the valve in. The valve tappet should then move back to its original position.
3. Remove the seal label (S) from the cartridge.
4. Insert the cartridge into the material unit. With an RFID tag on cartridge and Primeprint material unit, the unit automatically pairs these two components. The name of vat assigned ex works can be found on the white sticker on the right side of the material unit vat. The name corresponds to the numerical value assigned to the RFID code.

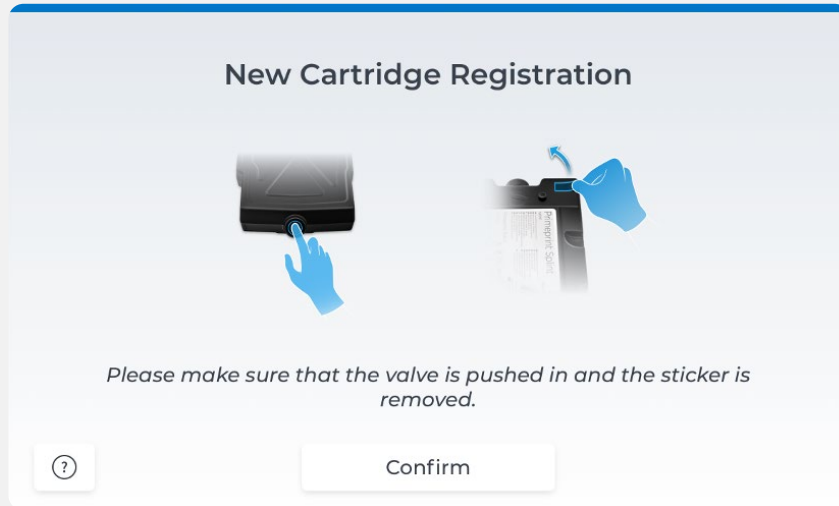
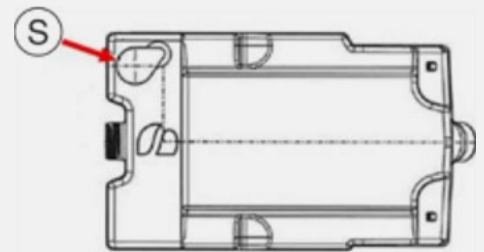


Figure 5: Message on the display

Shelf lifetime

After opening the cartridge, the resin can be used for 24 months. Primeprint detects when the shelf life has been exceeded and notifies the user. To achieve reliable printing results, the printing resin is heated to a defined minimum temperature and the resin is automatically conditioned in the tank for every printing process. The resin in the cartridge is mixed through the intelligent design of the cartridge when the cartridge is tilted up in the unit. The minimum resin temperature for printing is currently about 30°C. Resin temperatures above 30°C do not affect the printing result.

If a combination of cartridge and material unit has not been used in Primeprint for more than 1 month, a notice to shake the cartridge appears on the display and an increased conditioning of the resin in the tray takes place compared to the normal printing process.

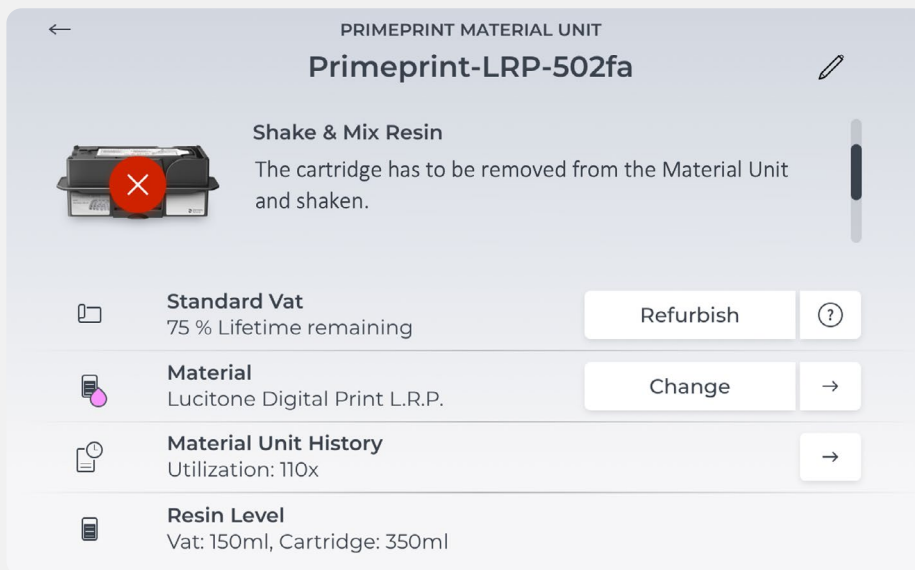


Figure 6: Message on the display

Disposal

Liquid resin is classified as hazardous waste and must therefore not be disposed of down the drain or in household waste. Disposal of the resin and isopropanol must be carried out in accordance with local/regional/national and international regulations. Information on disposal is included in the Safety Data Sheet of the resin and can be obtained from local authorities. In some cases, small containers can be disposed of free of charge if the safety data sheet is submitted. Cooperation with disposal service providers is also often possible. Contaminated packaging must be treated in the same way as the material.

Cured resin can be disposed of in normal waste. Curing of the resin can be induced by exposure to sunlight. Resin bound in isopropanol can also be cured under the exposure to sunlight and then filtered out of the isopropanol. Gloves and paper towels contaminated with resin can also be cured under the exposure to sunlight and then disposed of with household waste.