3D Printed Moulds

An innovative and superior method to create flexible, patient-specific bolus.

For many applications, a rigid 3D printed bolus is effective and well tolerated by the patient. However, some clinical scenarios may benefit from a soft, highly flexible patient specific bolus. Adaptiiv has listened to customer feedback and created innovative new technology that now allows users to easily create moulds that can be 3D printed and filled with flexible material to produce patient-specific bolus.

This feature is now available in the Simple Bolus and Modulated Electron Bolus modules.

Advantages of Adaptiiv’s 3D Printed Moulds:

• Allows the use of flexible materials, such as skin-safe silicone.
• Introduces a regulatory cleared process to create and produce flexible bolus with high accuracy.
• Preserves the superior patient fit provided by rigid 3D printed bolus compared to traditional methods – but offers the comfort and pliability of a soft material.
• Allows use of a bolus that copes with minor patient motion or changes between treatment fractions.
• Provides a solution particularly useful for head and neck or skin cases, or other complex anatomies requiring custom fit bolus.

"Adaptiiv has enabled us to confidently tackle situations where we would normally struggle to apply bolus. The benefit has already been seen in reduced setup times, improved patient comfort, and reproducibility. The ability to print the precise bolus required for electrons or photons is a powerful tool in an RT department."

CIARAN MALONE, MEDICAL PHYSICIST
SAINT LUKE’S RADIATION ONCOLOGY NETWORK
DUBLIN, IRELAND

Flexible material validated by Adaptiiv: Silicone*

For procurement of materials that have been validated for use with Adaptiiv’s 3D printed moulds software feature, please contact Adaptiiv or your local distributor.

*Silicone validated for use with Adaptiiv’s 3D printing software solution: Smooth-On, Inc. Ecoflex™ Series.

Adaptiiv has FDA 510(k) clearance to market a 3D printing software solution intended for use in radiation oncology.