3D Printed Moulds

An innovative method to create a soft, flexible, patient-specific bolus.

For some applications, a rigid bolus is effective and well-tolerated by the patient, but other clinical scenarios can benefit from using a soft, flexible bolus. Adaptiiiv software can generate a mould based on a simple bolus or modulated electron bolus structure that is 3D printed and filled with a soft material such as silicone.

This software feature is available as part of the Simple Bolus and Modulated Electron Bolus software modules.

Clinical Benefits

Access to Personalized Care
Silicone bolus is particularly beneficial for complex anatomies and post-surgical sites that require a personalized fit that easily conforms to irregular surface areas.

Clinical Precision
A flexible bolus can adapt to minor patient motion and changes to the surface structure throughout treatment fractions.

Operational Efficiency
Adaptiiiv software can generate a customized bolus mould in a few minutes. The bolus structure used to generate the mould can be verified for dose accuracy in the TPS before printing.

Traditional sheet bolus used on curved surfaces, such as a breast, result in poor conformity and resultant air gaps.

A flexible, patient-specific bolus provides superior fit and adheres to the surface shape of complex anatomies.

For procurement of materials that have been validated for use with the moulds feature, please contact Adaptiiiv or your local distributor.

Silicone type used for validation with Adaptiiiv’s 3D printing software solution: Smooth-On, Inc. Ecoflex™ Series.