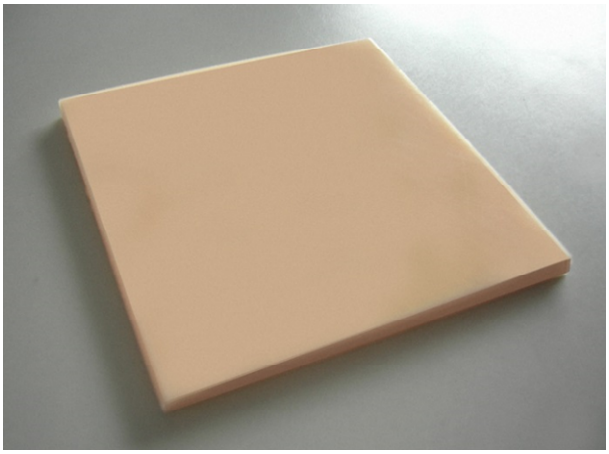
orfit The precision expert

HIGH PRECISION THERMOPLASTIC BOLUS MATERIAL

Thermoplastic Bolus Sheets	Thermoplastic Bolus Pellets
	
Non perforated – Beige color 10 cm x 10 cm x 5 mm Article No.: **8336.SO1/R/53** 15 cm x 15 cm x 5 mm Article No.: **8336.SO1/R/58** 20 cm x 20 cm x 5 mm Article No.: **8336.SO1/R/59** 30cm x 30cm x 5mm Article No.: **8336.SO1/R/60** 45 cm x 60 cm x 2 mm Article No.: **8333.SO1/R** 10 cm x 10 cm x 10 mm Article No.: **8336.SO1/R/53-1CM** 15 cm x 15 cm x 10 mm Article No.: **8336.SO1/R/58-1CM** 20 cm x 20 cm x 10 mm Article No.: **8336.SO1/R/59-1CM** 30 cm x 30 cm x 10 mm Article No.: **8336.SO1/R/60-1CM**	**White color** Bag of 500 g Article No.: **703011/1**
Non perforated – White color 45 cm x 60 cm x 2 mm Article No.: **8333N.SO1/R**	

A. GENERAL PRODUCT INFORMATION

The products referred to in these instructions are medical devices used as bolus material in radiation therapy.

This product may only be used in combination with immobilisation masks produced by Orfit. Orfit prohibits the use of unauthorised third-party products in conjunction with its own products.

B. PRODUCT DESCRIPTION

This Thermoplastic Bolus Material is a specially formulated rigid low melting temperature thermoplastic for bolus applications in radiation oncology applications. It is easy to mould and use and can be stuck on the thermoplastic mask of the patient.

It can also be stuck onto itself after heating to make thicker bolus sheets if needed.
This material is available in pre-cut sheets with a thickness of 2 mm, 5 mm, 1 cm and in pellet form.

C. DOSIMETRIC PROPERTIES

The Thermoplastic Bolus Material has a density of 1.13 g/cm³.

Attenuation (at 6 MV, 10 MV and 15 MV) and skin build-up (SBU) values per mm of material used:

Attenuation (± 0.15 %)			Skin build-up (± 0.1 mm)
6 MV	10 MV	15 MV	mm H_2O equiv.
0.28 %	0.20 %	0.20 %	1.3/mm material

Note: Use these numbers as a guidance only. Perform the measurements again in your department to verify these results.

D. PRECAUTIONS FOR USE

1. The workplace must be well-ventilated.
2. A water bath is filled with water and set at the right temperature of 65°C (149°F). A small amount of liquid soap can be added in order to soften the water.
3. Before sticking this bolus material on a thermoplastic mask, the surface of the mask should be lightly sanded. This sanding will remove the coating layer and will make sure that the bolus material adheres to the mask.
4. The bolus cannot be placed directly on the skin of the patient when it comes out of the water bath, because it is sticky. Place a paper towel on the patient's skin and then place the bolus on the paper towel. Once the bolus sheet is dry, it is no longer sticky and it can be placed directly on the patient's skin without using a paper towel.
5. Check the temperature of the bolus before placing it on the patient's skin to prevent burns.

E. METHOD OF ACTIVATION AND APPLICATION

1. Place the Thermoplastic Bolus Material in a water bath at a temperature of 65°C (149 °F). This is the ideal softening temperature. Use a nylon mesh in the water bath to prevent the bolus material from sticking to the metal parts of the water bath.
   When using a heat gun, do not exceed the temperature of 250°C (482°F) to avoid breakdown of the material.
   Never use an open flame to activate this material.
2. The ideal heating time for the material depends on the size and thickness of the sheet. The material will become transparent on heating. Make sure that the bolus material has become completely transparent before using it. The material in pellet form will become transparent faster than the sheets.
3. Observe the heating time closely and then take the material out of the water. When the temperature of the bolus is acceptable, place it on the patient's mask or on the paper towel on the patient's skin. Assure that the bolus is still mouldable when placing it on the mask or the patient.
4. Mould the material into the desired shape and thickness.
5. Continue moulding until the material has regained its original color and becomes firm. This takes from 1 to 2 minutes, depending on the temperature in the room.

F. STORAGE

Always store the Thermoplastic Bolus sheets and pellets in a dry place at a temperature of min. 10°C (50°F) and max. 40°C (122°F). The sheets and pellets should be stored in their original packaging.
Always keep the original packaging with labels after use of the product to ensure traceability.

G. MAINTENANCE AND WASTE MANAGEMENT

These products can be cleaned and disinfected by means of soapy water or an isopropanol based disinfectant, applied with a soft cloth. If unsure about the cleaning fluid, do not use.
Never use aerosol sprays, corrosive cleaning agents, solvents or abrasive detergents.
Contact your distributor if there are any questions or concerns.
The products can be disposed of with household waste.
This thermoplastic material is biodegradable.

H. ADDITIONAL INFORMATION

For additional information such as distributor contact information, product brochures, Safety Data Sheets and regulatory information, please visit our website www.orfit.com.

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