

Understanding Thermoplastic Materials



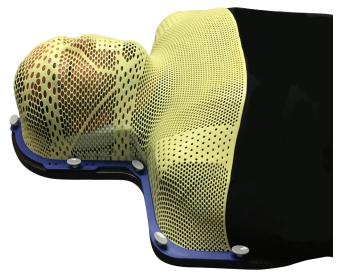
Aquaplast RT[™]

We are the inventors of Aquaplast RT™ which has become synonymous worldwide with superior thermoplastic for patient positioning. Its rigidity, resistance to shrinkage, and easy molding qualities are unparalleled in the industry.

We manufacture all our own thermoplastics and have done so for over 40 years. This allows us to maintain the highest levels of process control and ensures that our customers receive the most reliable products on the market.

- Available in 2.4 mm and 3.2 mm and in three different perforation patterns: standard perforation, micro perforation, and Variable Perf™ patterns.
- Consistent perforation patterns without solid areas results in a uniform contour forming a snug but comfortable mask without the bolus effect often associated with solid thermoplastics.

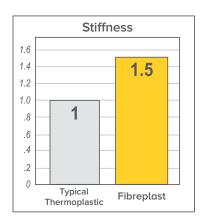




Fibreplast[®]

Our premium proprietary thermoplastic, Fibreplast®, combines our world-renowned Aquaplast $RT^{\mathbb{M}}$ with high strength Kevlar®. Fibreplast® is not only more rigid than other thermoplastics, it shrinks less and therefore increases patient comfort.

- Available in 2.4 mm and 3.2 mm thicknesses.
 Both are offered in standard perforation, micro perforation, and Variable Perf™ patterns.
- Reinforced with Kevlar® to maximize stiffness while reducing the bolus effect associated with competing thermoplastics.
- Most rigid low-temperature thermoplastic available for use in radiotherapy and preferred for stereotactic and proton applications.



Which thermoplastic is right for my patient's treatment?

	Portrait [™] S-frame	U-frame	ORF 3 & 5 Point Masks	PR 3 & 5 Point Masks	BoS™
Integrated Shim™ Allows for easy adjustments, tightening or loosening at each pin point with shims built directly into the mask.					
Assure [™] Open View Open View is designed for use with optical tracking systems and enhances patient comfort					
Variable Perf™ Optimized perforation pattern provides strength where you need it most, while reducing the bolus effect					
Split-frame Split-frame reduces the stretching of the thermoplastic material, resulting in a more rigid mask, and accommodates patients with long hair					
Fibreplast® The most rigid thermoplastic material available					
Aquaplast RT™ The original and most widely recognized thermoplastic material available					

Thermoplastic Styles



Portrait[™] Series

The Portrait™ series of masks are compatible with the Qfix® Portrait™ device and other S-type Devices. Masks are available in Fibreplast® and Aquaplast RT™ in varying thicknesses, 2.4 mm and 3.2 mm. The Portrait™ series offers three perforation patterns: standard, micro, and Variable Perf™ patterns. Optional features include Assure™ Open View, and Split-frame designs.

Assure[™] Open View Masks

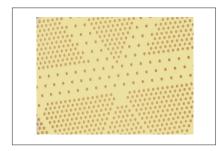
The perfect balance between rigid fixation and patient comfort. Assure™ Open View Masks reduce anxiety and increase patient comfort while allowing real time patient monitoring utilizing optical tracking systems.



Portrait™ Assure™ Open View Fibreplast, Head & Shoulder Mask

Variable Perf™

Variable Perf™ is the perfect balance between rigid fixation and patient comfort. These masks provide a whole new way to maximize the patient positioning performance of your devices. The optimal perforation pattern maximizes rigidity while minimizing the bolus effect.



Detail of Variable Perf™ Fibreplast® Mask

Integrated Shim[™] System

Innovative Integrated Shim™ System provides a 4 mm range of height adjustment utilizing discrete 0.5 mm increments to optimize immobilization. Independent height adjustments can be made for a completely customizable solution.

Split-frames

Split-frames reduce the stretching required of the thermoplastic, thus forming a more rigid mask. These masks also accommodate patients with long hair.



Portrait™ Split-frame Fibreplast®, Head Only Mask

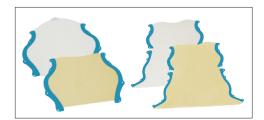


BoS Headframes

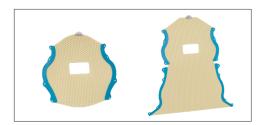
The BoS™ masks are specifically designed for use with the BoS™ device in Proton. They feature an innovative 3D shape that matches the contour of the BoS™ device. Masks are available in Fibreplast® and Aquaplast RT™ in 2.4 mm, and 3.2 mm thicknesses. BoS™ masks offers two perforation patterns, standard or micro patterns. BoS™ masks come in multiple sizes to accommodate different head sizes. Optional features include Assure™ Open View and cranial flap.

Assure[™] Open View Masks

The perfect balance between rigid fixation and patient comfort. Assure™ Open View Masks reduce anxiety and increase patient comfort while allowing real time patient monitoring utilizing optical tracking systems.



Bos™ Headfame Aquaplast RT™ and Fibreplast® Masks, Head Only and Head & Shoulder



Bos[™] Headfame Assure[™] Open View Fibreplast[®] Masks, Head Only and Head & Shoulder

U-frames

U-frame masks are compatible with the Qfix® AccuFix™ Device and other U-type devices. Masks are available in Fibreplast® and Aquaplast RT™ in varying thicknesses, 2.4 mm and 3.2 mm. The U-frame masks offers three perforation patterns: standard, micro, and Variable Perf™ patterns. Optional features include Assure™ Open View, Variable Perf™, Slimline frames, and Split-frame Designs.

Traditional U-frames

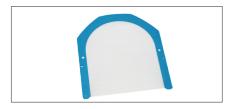
Traditional U-frame masks are available in head-only to provide a variety of patient positioning and immobilization solutions. These masks are especially useful for patients with smaller heads.



Traditional U-frame Mask

Slimline U-frames

Slimline U-frame masks feature a thin frame that maximizes the usable area of the thermoplastic material. These masks are especially useful for patients with larger heads.



Slimline U-frame Mask

Split U-frames

Split-frames reduce the stretching required of the thermoplastic, thus forming a more rigid mask. These masks also accommodate patients that have long hair.



Slimline Split U-frame Mask

Assure[™] Open View U-frames

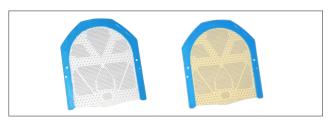
Assure™ Open View offers the ideal combination of immobility and patient comfort. Assure™ Open View Masks reduce anxiety and increase patient comfort while allowing real time patient monitoring utilizing optical tracking systems.



Assure[™] Open View Split U-frame Mask

Variable Perf[™] U-frames

Variable Perf™ is the perfect balance between rigid fixation and patient comfort. These masks provide a whole new way to maximize the patient positioning performance of your devices. The optimal perforation pattern maximizes rigidity while minimizing the bolus effect.



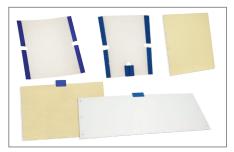
Variable Perf[™] Slimline U-frame Masks in Aquaplast $RT^{\text{\tiny IM}}$ and Fibreplast[®]

Other Thermoplastics

Qfix® offers a variety of 2-, 3-, 4-, and 5-point masks for use with Qfix® PentaFix™ and other systems. Masks are available in Fibreplast® and Aquaplast RT™ in two thicknesses: 2.4 mm and 3.2 mm. The masks have three perforation patterns: standard, micro, and Variable Perf™ patterns. An optional feature is Assure™ Open View.

Aquaplast RT™ & Fibreplast® for the Pelvis

We offer a wide variety of pelvis thermoplastic sheets designed to fit the Qfix® pelvis board, as well as most third party devices.



Thermoplastics for the pelvis.



Multiple point masks for other systems



Custom Bolus and Thermoplastic Pellets

Aquaplast RT[™] Custom Bolus

Ideal for the hard-to-bolus areas such as: chest wall, nose, partoid, groin, ears and any irregular surfaced anatomical feature.

Breast & Torso Thermoplastics

We offer a variety of sizes of Aquaplast RT™ and Fibreplast® solutions for securing the breast and torso.



Breast and Torso Thermoplastic



Integrated Shim[™] for Portrait[™] S-frame

Integrated Shim™ for Portrait™ S-frame advances patient positioning immobilization with thermoplastic masks. Integrated Shim allows for easy adjustments to the thermoplastic mask by tightening or loosening the mask at each pin point independently. The clinician can tighten or loosen the mask without removing the mask from the patient, increasing work flow efficiencies and patient comfort with easy rotation of each pin. The mask can be shimmed at each pin fixation point by discrete 0.5mm increments to tighten or loosen the mask. During the course of treatment if a patient's anatomy changes with weight loss or gain the mask is customizable to each patient without making a new mask and repeating the patient's simulation.

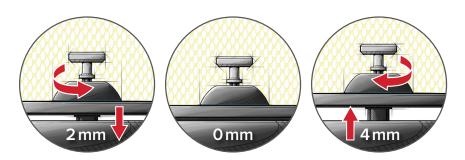
Features:

- Independent shimming at each pin point
- No need to remove the mask to tighten or loosen the mask
- Increased work flow efficiencies
- Increased patient comfort









Integrated Shim™ System

Innovative Integrated Shim™ System provides a 4 mm range of height adjustment utilizing discrete 0.5 mm increments to optimize immobilization. Independent height adjustments can be made for a completely customizable solution.

To adjust shim height, simply:

- Pull up to unlock the pin
- · Rotate the pin to the desired height adjustment
- · Depress the pin to lock
- Eliminates the need for mask removal to adjust shim height

IntegraBite"

Optional IntegraBite* easily molds into the Fibreplast mask; which conforms to the teeth or maxilla further decreasing head and neck rotation, flexion and extension.

- Provides rigid, non-invasive immobilization
- Ensures repeatable positioning and maximum access to the patient from various angles
- Simple, streamlined design makes application and insertion easy



Applicator

Biteplate



Integrated Shim[™] Offerings for Portrait S-frame



Fibreplast[®] Variable Perf[™]

Portrait™ S-frame Head-Only with Integrated Shim™

RT-A889KYSD Fibreplast, Portrait S-frame Head Only with Integrated Shim, 3.2 mm



Fibreplast® Open View

Portrait[™] S-frame Head-Only with Integrated Shim[™]

RT-A876KSDGLF Fibreplast, Portrait Split S-frame Micro Perf Head Only with Integrated Shim, 3.2 mm



Fibreplast®

Portrait™ S-frame Head & Shoulder with Integrated Shim™

RT-A782KSD Fibreplast, Portrait S-frame Head & Shoulder with Integrated Shim, 2.4 mm



Fibreplast[®] Variable Perf[™]

Portrait™ S-frame Head & Shoulder with Integrated Shim™

RT-A892KYSD Fibreplast, Portrait S-frame Variable Perf Head & Shoulder with Integrated Shim, 3.2 mm



Fibreplast® Variable Perf™ Open View

Portrait™ S-frame Head & Shoulder with Integrated Shim™

RT-A892KYSDF Fibreplast, Portrait S-frame Variable Perf Head & Shoulder with Integrated Shim, 3.2 mm



Aquaplast RT™ Variable Perf™

Portrait™ S-frame Head & Shoulder with Integrated Shim™

RT-A892YSD Aquaplast RT, Portrait S-frame Head & Shoulder with Integrated Shim, 3.2 mm

Portrait[™] S-frame

Assure[™] Open View Series





Head & Shoulder S-frame

RT-1782KYSDF	Fibreplast Head & Shoulder S-frame, 2.4 mm, Variable Perf
RT-1892KYSDF	Fibreplast Head & Shoulder S-frame, 3.2 mm, Variable Perf
RT-1778KSDF	Fibreplast Head & Shoulder S-frame, 2.4 mm, Micro Perf
RT-1878KSDF	Fibreplast Head & Shoulder S-frame, 3.2 mm, Micro Perf

Fibreplast® Variable Perf™

Head Only Portrait[™] S-frame – Variable Perf[™]

RT-1889KYSD Fibreplast, Head Only S-frame, 3.2 mm, Variable Perf

Head & Shoulder S-frame for Portrait™ – Variable Perf™

RT-1892KYSD Fibreplast, Head & Shoulder S-frame, 3.2 mm, Variable Perf

Fibreplast®

Head Only S-frame for Portrait™ & Other Systems - Standard Length

RT-1779KSD Fibreplast, Head Only S-frame, 2.4 mm, Standard Perf RT-1889KSD Fibreplast, Head Only S-frame, 3.2 mm, Standard Perf

Head Only S-frame for Portrait™ & Other Systems – Extended Length

RT-1779KSDX Fibreplast, Head Only S-frame, 2.4 mm, Standard Perf RT-1889KSDX Fibreplast, Head Only S-frame, 3.2 mm, Standard Perf

Head Only S-frame for Portrait™ & Other Systems – Long Length

RT-1889KSDL Fibreplast, Head Only S-frame, 3.2 mm, Standard Perf

Head & Shoulder S-frame Mask for Portrait™ & Other Systems

RT-1782KSD Fibreplast, Head & Shoulder S-frame, 2.4 mm, Micro Perf RT-1892KSD Fibreplast, Head & Shoulder S-frame, 3.2 mm, Standard Perf

Head Only Split S-frame with 8 cm Gap for Portrait™

RT-1779KSD-S3 Fibreplast Head Only Split S-frame, 2.4 mm, Standard Perf RT-1889KSD-S3 Fibreplast Head Only Split S-frame, 3.2 mm, Standard Perf

RT-1876KSDGL Fibreplast Head Only Split S-frame, 3.2 mm, Micro Perf, Long Length

Portrait[™] S-frame



Aquaplast RT™ Open Eye & Mouth

Head Only Portrait™ S-frame - Variable Perf™

RT-1889YSDR Aquaplast RT Open Eye & Mouth, Head Only Portrait S-frame, 3.2 mm



Head & Shoulder S-frame for Portrait™ & Other Systems

RT-1892YSDR Aquaplast RT Open Eye & Mouth, Head & Shoulder Portrait S-frame, 3.2 mm



Aquaplast RT™ Variable Perf™

Head Only Portrait™ S-frame - Standard

RT-1889YSD Aquaplast RT Variable Perf, Head Only Portrait S-frame, 3.2 mm



RT-1892YSD Aquaplast RT Variable Perf, Head & Shoulder Portrait S-frame, 3.2 mm

Aquaplast RT™



RT-1779SD Aquaplast RT Head Only Portrait S-frame, 2.4 mm, Standard RT-1889SD Aquaplast RT Head Only Portrait S-frame, 3.2 mm, Standard



Head Only S-frame for Portrait™ & Other Systems – Extended

RT-1779SDX Aquaplast RT Head Only Portrait S-frame, 2.4 mm, Extended RT-1889SDX Aquaplast RT Head Only Portrait S-frame, 3.2 mm, Extended



Head Only S-frame for Portrait™ & Other Systems – Long

RT-1779SDL Aquaplast RT Head Only Portrait S-frame, 2.4 mm, Long RT-1889SDL Aguaplast RT Head Only Portrait S-frame, 3.2 mm, Long



Head & Shoulder S-frame Mask for Portrait™ & Other Systems

RT-1782SD Aquaplast RT Head & Shoulder Portrait S-frame, 2.4 mm RT-1892SD Aquaplast RT Head & Shoulder Portrait S-frame, 3.2 mm



Head Only Split S-frame with 8 cm Gap for Portrait™

RT-1889SD-S3 Aquaplast RT Head-Only Split S-frame, 3.2 mm, Standard, 8 cm Gap

U-frames



Aquaplast RT™ Open Eye & Mouth

Slimline U-frame - Variable Perf™

RT-1889YSR Aquaplast RT Open Eye & Mouth Slimline U-frame, 3.2 mm, Variable Perf



Slimline U-frame – Variable Perf™

RT-1889YS Aquaplast RT Slimline U-frame, 3.2 mm, Variable Perf

Aquaplast RT™

Slimline U-frame - Standard

RT-1779S Aquaplast RT Slimline U-frame, 2.4 mm, Standard RT-1889S Aquaplast RT Slimline U-frame, 3.2 mm, Standard RT-1989S Aquaplast RT Slimline U-frame, 4.8 mm, Standard

Slimline U-frame – Extended

RT-1779SX Aquaplast RT Slimline U-frame, 2.4 mm, Extended RT-1889SX Aquaplast RT Slimline U-frame, 3.2 mm, Extended

Slimline U-frame - Long

RT-1779SL Aquaplast RT Slimline U-frame, 2.4 mm, Long
RT-1889SL Aquaplast RT Slimline U-frame, 3.2 mm, Long
RT-1989SL Aquaplast RT Slimline U-frame, 4.8 mm, Long

Traditional U-frame - Standard

RT-1779 Aquaplast RT U-frame, 2.4 mm, Standard RT-1889 Aquaplast RT U-frame, 3.2 mm, Standard RT-1989 Aquaplast RT U-frame, 4.8 mm, Standard

Traditional U-frame – Extended

RT-1779X Aquaplast RT U-frame, 2.4 mm, Extended
RT-1889X Aquaplast RT U-frame, 3.2 mm, Extended
RT-1989X Aquaplast RT U-frame, 4.8 mm, Extended

Traditional U-frame - Long

RT-1779L Aquaplast RT U-frame, 2.4 mm, Long
RT-1889L Aquaplast RT U-frame, 3.2 mm, Long
RT-1989L Aquaplast RT U-frame, 48 mm, Long

Slimline Split U-frame – Standard – 8 cm Gap

RT-1779S-S3 Aquaplast RT Slimline Split U-frame, 2.4 mm, StandardRT-1889S-S3 Aquaplast RT Slimline Split U-frame, 3.2 mm, Standard

Slimline Split U-frame – 8 cm Gap, Extended

RT-1889SX-S3 Aquaplast RT Slimline Split U-frame, 3.2 mm, Extended

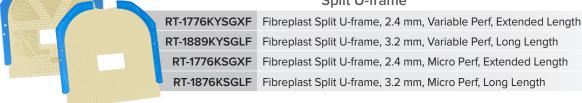
Slimline Split U-frame – 8 cm Gap, Long

RT-1889SL-S3 Aquaplast RT Slimline Split U-frame, 3.2 mm, Long

U-frames

Assure[™] Open View Series







Fibreplast® Variable Perf®

Slimline U-frame – Variable Perf™

RT-1889KYS Fibreplast Slimline U-frame, 3.2 mm, Variable Perf

Fibreplast®

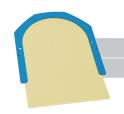
Slimline U-frame - Standard Length

RT-1779KS Fibreplast Slimline U-frame, 2.4 mm, Standard Perf
RT-1889KS Fibreplast RT Slimline U-frame, 3.2 mm, Standard Perf



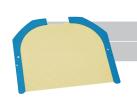
Slimline U-frame – Extended Length

RT-1779KSX Fibreplast Slimline U-frame, 2.4 mm, Standard Perf RT-1889KSX Fibreplast Slimline U-frame, 3.2 mm, Standard Perf



Slimline U-frame – Long Length

RT-1779KSL Fibreplast Slimline U-frame, 2.4 mm, Standard Perf RT-1889KSL Fibreplast Slimline U-frame, 3.2 mm, Standard Perf



Slimline Split U-frame – 8 am Gap – Standard Length

RT-1779KS-S3 Fibreplast Slimline Split U-frame, 2.4 mm, Standard Perf RT-1889KS-S3 Fibreplast Slimline Split U-frame, 3.2 mm, Standard Perf

2006789 EN C

This brochure contains information about products which may or may not be available in particular countries. Each country has specific laws and regulations governing the commercialization of medical devices and the communication of information regarding medical devices in printed and digital media. Products appearing in this brochure or on our website may or may not have received approval, clearance, or marketing authorization by a governmental regulatory body in any particular country, or may have received approval, clearance, or marketing authorization for different indications and restrictions in different countries, or may be for investigational use only. A product's appearance in this brochure should not be construed as a solicitation or promotion for said product, nor any indication which is not authorized by the laws and regulations of the country where the reader resides.

