First Choice Treatment
For most ophthalmic oncologists, the first-line treatment is plaque radiotherapy whenever applicable, as this is technically straightforward and very effective. When choosing a Ru-106 Eye Applicator, it requires no assembly and just needs to be sterilized before use. Due to the long half-life of 373.6 days, Ru-106 Eye Applicators can be used multiple times over a one-year period.

Ergonomic Design
For more than 30 years, ophthalmologists have favored Ru-106 Eye Applicators due to their superior design. With a thickness of only 1 mm, they are very easy to handle. The applicators are available in 16 different types to provide a match to the individual tumor size and location. They are spherically shaped with a radius of 12 to 14 mm and have special eyelets that are sutured to the sclera.

Beneficial Beta Radiation
Because the beta radiation emitted by Ru-106/Rh-106 has a limited range, there is an advantageous steep dose fall-off. As a result, tumors with a height of up to 5 mm can be treated with a high dose, while sparing sensitive structures such as the optic disc or fovea.

Quality of Life
The conservation of central vision is the primary goal of Ru-106 Eye Applicator brachytherapy. If this is not possible, the treatment will aim to conserve peripheral vision or at least maintain the physical appearance of the eye, depending on the location of the tumor.

Source Strength and NIST Traceable Dosimetry
All plaques come with an extensive individual source certificate. The source strength is stated as the reference dose rate at the axis at a distance of 2 mm from the applicator surface. Its absolute calibration is traceable to the standard of the National Institute of Standards and Technology, USA (NIST). For production reasons, the actual value at the date of shipment can deviate from the reference dose rate (80 mGy/min) in the range of -10%/+60%. To apply for a handling license, users should refer to the user manual and quote the maximum activity.

Accessories
- Reusable Acrylic or Silver Dummies help to optimize the positioning of the applicators. They are available for all types of Ru-106 Eye Applicators.
- The dedicated Safety and Sterilization Container supports proper handling.
- The diaphanoscope, a fiber-optic light source, illuminates the eyeball and makes the tumor visible as a dark spot or shadow on its surface. This supports the proper positioning of the plaque above the tumor.

„Made in Germany“ Quality
Eckert & Ziegler BEBIG is the only global provider of Ru-106 Eye Applicators. Each single applicator is produced, tested and certified in Berlin, Germany, in compliance with high quality standards. Of course, Eckert & Ziegler BEBIG also accepts the return of used applicators.
Ru-106 Eye Applicators

Retinoblastoma

Type | Diam. in mm | Spherical radius in mm | Order code | Related Acrylic Dummy | Related Silver Dummy
--- | --- | --- | --- | --- | ---
CCZ | 11.6 | 12 | Ru6.A01 | ACD.A21 | AGD.A21
CCY | 11.6 | 12 | Ru6.A02 | ACD.A22 | AGD.A22
CCX | 11.6 | 12 | Ru6.A03 | ACD.A23 | AGD.A23
CXS | 11.6 | 12 | Ru6.A033 | ACD.A23 | AGD.A23
CCA | 15.3 | 12 | Ru6.A04 | ACD.A24 | AGD.A24
CCD | 17.9 | 12 | Ru6.A05 | ACD.A25 | AGD.A25
CCB | 20.2 | 12 | Ru6.A06 | ACD.A26 | AGD.A26
CGD | 22.3 | 13 | Ru6.A07 | ACD.A27 | AGD.A27
CCC | 24.8 | 13 | Ru6.A08 | ACD.A28 | AGD.A28
COB | 19.8 | 12 | Ru6.A09 | ACD.A29 | AGD.A29
COD | 25.4 | 14 | Ru6.A10 | ACD.A30 | AGD.A30
COE | 19.8 | 12 | Ru6.A11 | ACD.A31 | AGD.A31
COC | 25.4 | 14 | Ru6.A12 | ACD.A32 | AGD.A32
CIA | 15.3 | 12 | Ru6.A13 | ACD.A33 | AGD.A33
CIB | 20.2 | 12 | Ru6.A14 | ACD.A34 | AGD.A34
CIB-2 | 20.2 | 12 | Ru6.A15 | ACD.A35 | AGD.A35

Unique Plaque Design

The core of the Ru-106 Eye Applicator consists of a foil coated with Ru-106/Rh-106. This core is safely encapsulated within pure silver sheets. The silver backing acts as a radiation shield and absorbs approximately 95% of the beta radiation.

Safety and Sterilization Container

This specialized container combines an aluminum insert and an outer stainless steel shield for steam sterilization and the transportation of eye plaques within the clinic. The validated sterilization parameters are as follows: temperature: 134 °C, pressure: 3 bar, and time: 3.5 min. The holding time can be extended up to 30 min.

The mentioned products are not available in all markets. Please contact your local Eckert & Ziegler BEBIG representative for more information.