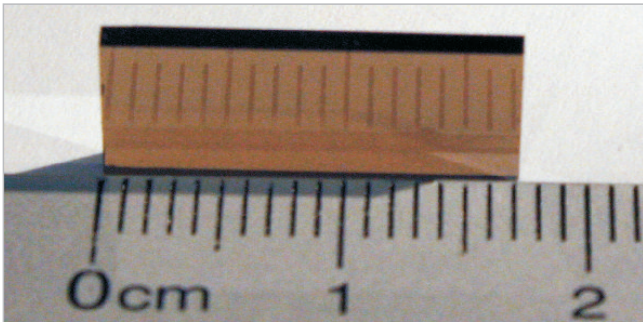


## Large-size Single-crystal Diamond for High-end Applications

Augsburg Diamond Technology synthesizes single-crystal diamond for a wide range of mechanical, optical, electrical and thermal applications. Applying chemical vapor deposition, all crystals are grown on the specially developed multilayer substrate Ir/YSZ/Si. Hence, diamond crystals with an edge length of at least 20 mm are achievable. Depending on the specific application, individual characteristics regarding transparency or shading can be offered.

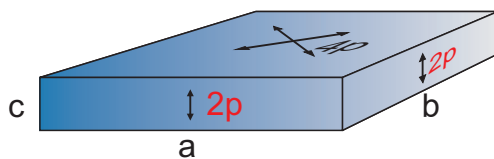
### Virtues of the diamonds of AUDIATEC:

- Excellent homogeneity (free of joints or growth sector inhomogeneities)
- Large dimensions for new applications at affordable prices
- Short-term availability also for large edge lengths
- Customized crystals (minimized waste during further processing by customer)

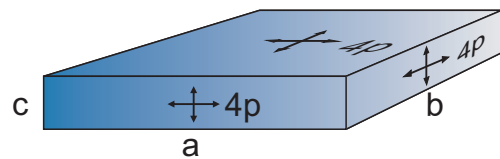


Diamond crystals are available in various geometric shapes:

Geometric form A



Geometric form B



$a < 20$  mm,  $b < 7$  mm,  $c < 2$  mm, further dimensions on request  
 $2p$  surfaces correspond to crystallographic (110) surfaces,  $4p$  to (100) surfaces

### Specifications:

- Edge lengths up to 20 mm; larger dimensions on request
- Nitrogen Concentration:  $< 1$  ppm standard
- Boron Concentration:  $< 10^{16}$  cm<sup>-3</sup>
- Top surfaces: as-grown or polished ( $R_a < 5$  nm)
- Lateral surfaces: laser cut
- Various geometries that can be achieved by laser cutting
- Deviation of  $4p$  crystal surfaces and sample surface  $< 2^\circ$  on request