

Optics from Synthetic Crystalline Quartz

Along with phase retardation plates we manufacture some other optical polarizing elements from synthetic crystalline quartz. From the original raw trapeziform blocks with the approximate size (x=100mm, y=200mm, z=100mm) we prepare orientated blanks for further processing as well as completed polished and coated optical elements like depolarizers for application e. g. in display industry. Our standard products are shown below. Certainly other sizes and orientations are also possible.

orientated blanks from synthetic crystalline quartz

size, mm	orientation	price, USD/kg
x=32.0, y=80-160, z=32.0	optical axis along z +/-15min in both planes	806
x=30.0, y=80-160, z=30.0	optical axis along z +/-15min in both planes	806
x=27.3, y=80-160, z=27.3	optical axis along z +/-15min in both planes	806
x=21.8, y=80-160, z=21.8	optical axis along z +/-15min in both planes	806
x=19.8, y=80-160, z=19.8	optical axis along z +/-15min in both planes	806
x=18.8, y > 140, z=18.8	optical axis along z +/-15min in both planes	806
x=16.8, y > 140, z=16.8	optical axis along z +/-15min in both planes	806

depolarizers from synthetic crystalline quartz

Depolarizers are plane optical windows from crystalline quartz, where the optical axis of the material is parallel to the polished plane surfaces of the window. The depolarizers work in broadband wavelength ranges and usually the VIS wavelength range is used. The linearly polarized incident beam is transformed into „quasi“-random polarized beam after pathing the depolarizer.

size, mm	antireflection coating	price, USD/pc
dia 50 x 1	AR/AR@400-700nm	72
22 x 22 x 9	AR/AR@400-700nm	50
25 x 25 x 6	AR/AR@400-700nm	50
30 x 25 x 6	AR/AR@400-700nm	47
30 x 25 x 8.2	AR/AR@400-700nm	65