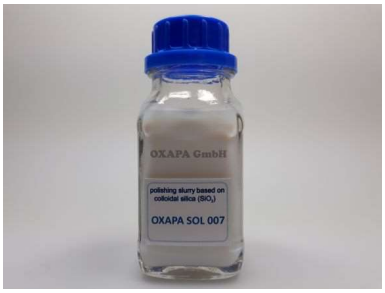
# Polishing Slurry Based on Colloidal Silica ($SiO_2$)

| slurry | pH-values | grain size | stock removal, surface roughness Ra | price (EUR/kg) |
|---|---|---|---|---|
| OXAPA SOL 007 | 8 | 70nm | 0.05-0.08µm/min, 1-2Å | 80 |

The polishing slurry based on colloidal silica OXAPA SOL 007 is used for finish polishing of glass materials with internal crystalline structure. Our tests have proven good results with sapphire, glass ceramics like Sitall, Clearceram, Zerodur, crystalline quartz.

It can be also used with the crystals YAG, YLF, KGW, KYW, $YVO_4$, $GdVO_4$, YSGG, AGS, AGSe, $ZnGeP_2$, Ge, Si, ZnS, ZnSe, CdS, CdSe, Forsterite, Alexandrite, Spinel, $CaF_2$, $BaF_2$, $MgF_2$, LiF, LBO, CLBO, a-BBO, b-BBO, $LiIO_3$, $LiNbO_3$. Nevertheless the application conditions should be well adapted.




# Polishing Slurries Based on Alumina ($Al_2O_3$)

| slurry | pH-values | grain size | stock removal, surface roughness Ra | price (EUR/kg) |
|---|---|---|---|---|
| OXAPA AL1L | 13 | 1µm | 0.30-0.40µm/min, 4-5Å | 83 |
| OXAPA AL1S | 3 | 1µm | 0.30-0.40µm/min, 4-5Å | 111 |
| OXAPA AL03L | 13 | 0.3µm | 0.15-0.25µm/min, 2-3Å | 83 |
| OXAPA AL03S | 3 | 0.3µm | 0.15-0.25µm/min, 2-3Å | 111 |

The polishing slurries based on alumina OXAPA AL 1 and OXAPA AL 03, are used for polishing of optical materials with crystalline structure. The slurries are especially useful in processing of hard crystals like sapphire, YAG, Spinel, Forsterite, Alexandrite. Our tests have proven good results also with ZnSe, ZnS, and glass ceramics like Sitall, Clearceram, Zerodur as well as with crystalline quartz.

We found out also that the alumina slurries can be successfully used with relatively soft materials like Ge, Si, YSGG, AGS, AGSe, $ZnGeP_2$, CdS, CdSe, as well as with IKS-glasses.

They can be also used with the crystals YLF, KGW, KYW, $YVO_4$, $GdVO_4$, $CaF_2$, $BaF_2$, $MgF_2$, LiF, LBO, CLBO, a-BBO, b-BBO, $LiIO_3$, $LiNbO_3$. Nevertheless the application conditions should be well adapted.