Radiation Resistant Glasses

The radiation resistant glasses are mainly the derivatives of the standard glasses modified by introduction of some oxides of rare earths like e. g. CeO_2. It makes the glasses more stable against radiations with high frequency (e. g. x-ray), whereas the transmission of the glasses in the work range of the wavelength spectrum decreases less than the transmission of the standard glasses. The table of the available radiation resistant glasses and the suitable polishing slurries is given below.

code n_d-ν_d	glass	n_d	ν_d	n_e	ν_e	CTE ppm/K	density g/cm^3	CeO_2 %	OXAPA polishing slurry	OXAPA polishing pad	OXAPA polishing pitch
520636	К108	1.51975	63.6	1.52170	63.4	7.6	2.52	1.5	OXAPA BS		
523568	К515	1.52344	56.8	1.52564	56.5	9.0	2.59	2.0	OXAPA BS		
584408	ЛФ107	1.58397	40.8	1.58736	40.6	9.1	3.23	1.5	OXAPA PBS		
597399	ЛФ109	1.59655	39.9	1.60010	39.6	10.7	3.30	1.9	OXAPA PBS		
613370	Ф101	1.61294	37.0	1.61688	36.7	7.4	3.57	0.3	OXAPA PBS	**for all** hard 8 interm. 5 soft 4 soft 19	**for all** PP15-45
621366	Ф113	1.62072	36.6	1.62474	36.3	8.1	6.60	1.2	OXAPA PBS		
625356	Ф108	1.62495	35.6	1.62911	36.3	9.9	3.61	0.3	OXAPA PBS		
648339	ТФ101	1.64766	33.9	1.65219	33.6	8.5	3.86	1.0	OXAPA PBS		
673322	ТФ102	1.67268	32.2	1.67762	32.0	7.6	4.09	0.4	OXAPA PBS		
691548	СТК112	1.69064	54.8	1.69364	54.5	6.3	3.43	1.5	OXAPA LBS		
755275	ТФ105	1.75523	27.5	1.76171	27.3	8.3	4.77	0.2	OXAPA PBS		
809253	ТФ110	1.80906	25.3	1.81661	25.1	7.8	5.20	0.5	OXAPA PBS