

2023 MINERAL GLASS AND PLASTICS
LASER PROTECTION WINDOWS

LASER PROTECTION WINDOWS FOR INDUSTRY, MEDICINE, RESEARCH AND DEVELOPMENT.

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Laser protection at the highest technical level is essential for us. The areas of application of laser systems in industry, medicine, research and development, are becoming increasingly versatile and make extensive protection necessary. By continuously developing our filters, we ensure to provide you always with the best product for your needs. Our laser protection windows are suitable for wavelengths from UV to infrared and are tested according to EN 12254. We ensure the correct selection of the laser protection material suitable for your requirements according to EN 60825-4.

EN 12254, according to which our materials are certified, serves as the basis for the right material selection. The following protection levels represent the main range for all common laser wavelengths.

Visit our website to get more informations about all filters and to find your suitable product with our protection level calculator.

Find all of our laser protection windows and the protection level calculator online at



protect-laserschutz.de/en/products



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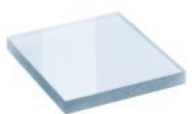








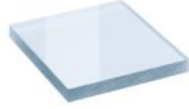
Wavelength Filter No.	Excimer	UV	Nd:YAG (4x)	Nd:YAG (3x)	Blue	Argon	Nd:YAG(2x)	Dye	Dye	Dye	HeNe	Diode (red)	Ruby	Alexandrit	Tr:Saphir	Diode	Diode	Disc	Nd:YAG	Fibre	Telekom	Telekom	Ho:YAG	Er:YAG	CO2			
	193	248	266	355	445	515	532	577	585	595	635	650	694	755	800	808	940	1030	1064	1080	1320	1550	2100	2940	10600			
Mineral glass	0140																											
	0142																											
	0155																											
	0159																											
	0262																											
Plastics	0145																											
	0148																											
	0156																											
	0195																											
	0201																											
	0202																											
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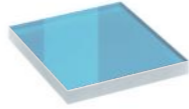
Standard dimensions for laser protection windows

Overview of our standard sizes up to the maximum size. Deviating dimensions and customized solutions are possible. Please contact us for this purpose. We will be happy to consult you!

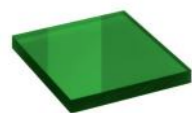

Mineral glass	Plastic
100 x 200 mm	100 x 200 mm
210 x 297 mm	210 x 297 mm
	810 x 950 mm
	1000 x 1800 mm


Filter	Protection level of the filter according to EN 207			Max. size (mm)	size (mm)	Item No.
0140390 VLT ~ 70% Filter color grey Thickness~ 5,5mm 	>	915 – 955	DIR LB5 OD 5+ PF CE	210 x 297	100 x 200	100-G014039-100x200
	>	955 – 1000	DIR LB6 OD 6+ PF CE			
	>	1000 – 1025	DIR LB7 + M LB7Y OD 7+ PF CE		210 x 297	100-G014039-210x297
	>	1025 – 1400	D LB7 + IR LB8 + M LB8Y OD 8+ PF CE			
	>	1400 – 2600	DI LB4 OD 4+ PF CE			
	>	2600 – 2800	DI LB3 OD 3+ PF CE			
	>	2800 – 3000	DI LB4 OD 4+ PF CE			
	>	3000 – 4000	DI LB3 OD 3+ PF CE			
	>	4000 – 9000	DI LB4 OD 4+ PF CE			
	>	9000 – 11000	DI LB5 OD 5+ PF CE			
014059H VLT ~ 70% Filter color grey Thickness~ 7,5mm 	>	940 – 1000	DIR LB4 OD 4+ PF CE	210 x 297	100 x 200	100-G014059-100x200
	>	1000 – 1400	D LB7 + IR LB8 OD 8+ PF CE			
	>	1400 – 1800	D LB5 + I LB4 OD 5+ PF CE		210 x 297	100-G014059-210x297
	>	1800 – 3000	DI LB4 OD 4+ PF CE			
	>	10000 – 11000	DI LB5 OD 5+ PF CE			
0142 VLT ~ 40% Filter color orange Thickness~ 5,2mm 	>	180 – 315	D LB10 + IR LB5 OD 10+ PF CE	210 x 297	100 x 200	100-G0142-100x200
	>	315 – 532	D LB7 + IR LB8 + M LB8Y OD 8+ PF CE			
	>				210 x 297	100-G0142-210x297
0155 VLT ~ 45% Filter color teal Thickness~ 6mm 	>	625 – 645	DIRM LB2 OD 2+ PF CE	210 x 297	100 x 200	100-G0155-100x200
	>	645 – 660	DIRM LB3 OD 3+ PF CE			
	>	660 – 675	DIRM LB4 OD 4+ PF CE		210 x 297	100-G0155-210x297
	>	675 – 690	DIRM LB5 OD 5+ PF CE			
	>	690 – 700	DIRM LB6 OD 6+ PF CE			
	>	700 – 750	DIR LB7 + M LB7Y OD 7+ PF CE			
	>	750 – 1200	D LB7 + IR LB8 + M LB8Y OD 8+ PF CE			
	>	1200 – 1240	DIR LB7 + M LB7Y OD 7+ PF CE			
	>	1240 – 1285	DIRM LB6 OD 6+ PF CE			
	>	1285 – 1340	DIRM LB5 OD 5+ PF CE			
	>	1340 – 1400	DIRM LB4 OD 4+ PF CE			
	>	1400 – 1480	DI LB3 OD 3+ PF CE			
	>	1480 – 1590	DI LB2 OD 2+ PF CE			
>	9000 – 11000	DI LB5 OD 5+ PF CE				


Filter			Protection level of the filter according to EN 207				Max. size (mm)	size (mm)	Item No.
0159	VLT ~ 90%		4750 – 11000	DI LB5	OD 5+	PF CE	210 x 297	100 x 200	100-G0159-100x200
Filter color		clear							
Thickness~		3,7mm						210 x 297	100-G0159-210x297
									
0262	VLT ~ 25%		180 – 315	D LB10 + IR LB5 + M LB6Y	OD 10+	PF CE	210 x 297	100 x 200	100-G0262-100x200
Filter color		red	> 315 – 518	D LB7+ I LB8 + R LB9 + M LB8Y	OD 9+	PF CE			
Thickness~		8,3mm	> 518 – 532	D LB7 + IR LB8 + M LB8Y	OD 8+	PF CE		210 x 297	100-G0262-210x297
									
			800 – 816	DIRM LB2	OD 2+	PF CE			
			> 816 – 854	DIRM LB3	OD 3+	PF CE			
			> 854 – 891	DIRM LB4	OD 4+	PF CE			
			> 891 – 927	DIRM LB5	OD 5+	PF CE			
			> 927 – 1000	DIRM LB6	OD 6+	PF CE			
			> 1000 – 1005	DIRM LB7	OD 7+	PF CE			
			> 1005 – 1060	D LB7 + IRM LB8	OD 8+	PF CE			
			> 1060 – 1400	D LB7 + IRM LB9	OD 9+	PF CE			
			> 1400 – 9000	DI LB4 + R LB3Y + M LB4Y	OD 4+	PF CE			
			9000 – 11000	DI LB5 + R LB3Y + M LB5Y	OD 5+	PF CE			
0360	VLT ~ 67%		730 – 785	DIRM LB1	OD 1+	PF CE	210 x 297	100 x 200	100-G0360-100x200
Filter color		grey	> 785 – 825	DIRM LB2	OD 2+	PF CE			
Thickness~		6mm	> 825 – 862	DIRM LB3	OD 3+	PF CE		210 x 297	100-G0360-210x297
									
			> 862 – 890	DIRM LB4	OD 4+	PF CE			
			> 890 – 915	DIRM LB5	OD 5+	PF CE			
			> 915 – 939	DIRM LB6	OD 6+	PF CE			
			> 939 – 979	DIRM LB7	OD 7+	PF CE			
			> 979 – 1019	D LB7 + IRM LB8	OD 8+	PF CE			
			> 1019 – 1400	D LB7 + IRM LB9	OD 9+	PF CE			
			> 1400 – 2690	DI LB5 + R LB3Y + M LB5Y	OD 5+	PF CE			
			> 2690 – 2753	DI LB4 + R LB3Y + M LB4Y	OD 4+	PF CE			
			> 2753 – 11500	DI LB5 + R LB3Y + M LB5Y	OD 5+	PF CE			

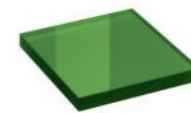
Filter			Protection level of the filter according to EN 12254				Max. size (mm)	size (mm)	Item No.
foil									
0289	VLT ~ 40%		180 – 315	D AB5 + IR AB3	OD 4+	PF CE		Customer specific	270-0289-CUSTOM
Filter color		blue	> 315 – 330	DIR AB4	OD 5+	PF CE			
Thickness~		0,125mm	> 330 – 350	DIR AB3	OD 3+	PF CE			
Note: Foil filter			> 350 – 372	DIR AB2	OD 2+	PF CE			
			> 372 – 390	DIR AB1	OD 1+	PF CE			
			> 770 – 855	D AB1	OD 1+	PF CE			
			> 855 – 945	D AB2	OD 2+	PF CE			
			> 945 – 1400	D AB3	OD 3+	PF CE			

Filter			Protection level of the filter according to EN 12254				Max. size (mm)	size (mm)	Item No.
0145	VLT ~ 85%		180 – 315	D AB10 + IR AB5	OD 10+	PF CE	2000 x 3000	100 x 200	100-K0145-100x200
Filter color		clear	> 315 – 380	DIR AB5	OD 9+	PF CE			
Thickness~		6mm	> 380 – 387	DIR AB4	OD 4+	PF CE		210 x 297	100-K0145-210x297
			> 387 – 392	DIR AB2	OD 2+	PF CE			
			> 392 – 395	DIR AB1	OD 1+	PF CE		2000 x 3000	100-K0145-2000x3000
			> 9000 – 11000	D AB4	OD 4+	PF CE			
0156	VLT ~ 3,5%		Note:	Certified acc. EN208			1000 x 1500	100 x 200	100-K0156-100x200
Filter color		grey	0.01W	2*E-6J 400 – 700	RB1	PF CE			
Thickness~		1,5mm						210 x 297	100-K0156-210x297
								1000 x 1500	100-K0156-1000x1500
0201	VLT ~ 60%		740 – 755	DIR LB1 + M LB1Y	OD 1+	PF S CE	915 x 1220	100 x 200	100-K0201-100x200
Filter color		green	> 755 – 785	DIR LB2 + M LB2Y	OD 2+	PF S CE			
Thickness~		6mm	> 785 – 807	DIR LB3 + M LB3Y	OD 3+	PF S CE		210 x 297	100-K0201-210x297
			> 807 – 830	DIR LB4 + M LB4Y	OD 4+	PF S CE			
			> 830 – 860	DIR LB5 + M LB5Y	OD 5+	PF S CE		915 x 1220	100-K0201-915x1220
			> 860 – 880	DIR LB6 + M LB5Y	OD 6+	PF S CE			
			> 880 – 900	D LB6 + IR LB7 + M LB5Y	OD 7+	PF S CE			
			> 900 – 1065	DR LB7 + I LB8 + M LB8Y	OD 8+	PF S CE			
			> 1065 – 1070	DIR LB6 + M LB6Y	OD 6+	PF S CE			
			> 1070 – 1080	DIR LB4 + M LB4Y	OD 4+	PF S CE			
			> 1080 – 1100	DIR LB3 + M LB3Y	OD 3+	PF S CE			

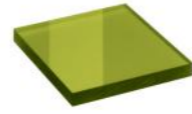
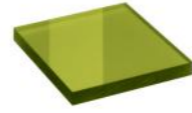
Filter			Protection level of the filter according to EN 12254				Max. size (mm)	size (mm)	Item No.
0195	VLT ~	25%	180 – 315	D AB7 + IR AB2	OD 7+	PF CE	1000 x 1500	100 x 200	100-K0195-100x200
	Filter color	green	> 315 – 430	D AB6	OD 6+	PF CE			
	Thickness~	3,1mm	> 430 – 435	D AB5	OD 5+	PF CE		210 x 297	100-K0195-210x297
			> 435 – 440	D AB4	OD 4+	PF CE			
			> 450 – 460	D AB2	OD 2+	PF CE		1000 x 1500	100-K0195-1000x1500
			> 600 – 630	D AB1	OD 1+	PF CE			
			> 630 – 700	D AB2	OD 2+	PF CE			
			> 700 – 720	D AB1	OD 1+	PF CE			
0202	VLT ~	35%	180 – 315	D AB8 + IR AB3	OD 10+	PF CE	1000 x 1800	100 x 200	100-K0202-4-100x200
	Filter color	green	> 315 – 370	DIR AB5	OD 10+	PF CE			
	Thickness~	4mm	> 370 – 380	DIR AB5	OD 7+	PF CE		210 x 297	100-K0202-4-210x297
			> 380 – 395	DIR AB5	OD 6+	PF CE			
			> 395 – 440	DIR AB5	OD 5+	PF CE		810 x 950	100-K0202-4-810x950
			> 440 – 455	DIR AB4	OD 4+	PF CE			
			> 455 – 465	DIR AB3	OD 3+	PF CE		1000 x 1800	100-K0202-4-1000x1800
			> 465 – 480	DIR AB2	OD 2+	PF CE			
			> 480 – 495	DIR AB1	OD 1+	PF CE			
			> 685 – 755	D AB1 + IR AB1Y	OD 1+	PF CE			
			> 755 – 800	D AB2 + IR AB2Y	OD 2+	PF CE			
			> 800 – 830	D AB3 + IR AB3Y	OD 3+	PF CE			
			> 830 – 852	D AB4 + IR AB4Y	OD 4+	PF CE			
			> 852 – 872	D AB5 + IR AB5Y	OD 5+	PF CE			
			> 872 – 892	D AB6 + IR AB6Y	OD 6+	PF CE			
			> 892 – 905	D AB6 + I AB7Y + R AB6Y	OD 7+	PF CE			
			> 905 – 930	D AB6 + I AB7Y + R AB6Y	OD 8+	PF CE			
			> 930 – 975	D AB6 + I AB7Y + R AB6Y	OD 9+	PF CE			
			> 975 – 1100	D AB6 + I AB7Y + R AB6Y	OD 10+	PF CE			
			> 1100 – 1120	D AB6 + I AB7Y + R AB6Y	OD 9+	PF CE			
			> 1120 – 1140	D AB6 + I AB7Y + R AB6Y	OD 8+	PF CE			
			> 1140 – 1155	D AB6 + I AB7Y + R AB6Y	OD 7+	PF CE			
			> 1155 – 1185	D AB6 + IR AB6Y	OD 6+	PF CE			
		> 1185 – 1215	D AB5 + IR AB5Y	OD 5+	PF CE				
		> 1215 – 1400	D AB4 + IR AB4Y	OD 4+	PF CE				
		> 1400 – 1735	D AB2	OD 3+	PF CE				
		> 2930 – 2990	D AB2	OD 3+	PF CE				
		> 2990 – 3000	D AB2	OD 2+	PF CE				
		> 9000 – 11000	D AB2	OD 2+	PF CE				

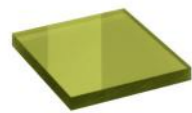
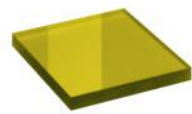

Filter			Protection level of the filter according to EN 12254				Max. size (mm)	size (mm)	Item No.
0205-3	VLT ~	34%	180 – 315	D AB8 + IR AB3	OD 10+	PF CE	915 x 1220	100 x 200	100-K0205-3-100x200
	Filter color	green	> 315 – 355	DIR AB5	OD 10+	PF CE			
	Thickness~	3,5mm	> 355 – 360	DIR AB5	OD 8+	PF CE		210 x 297	100-K0205-3-210x297
			> 360 – 365	DIR AB5	OD 7+	PF CE			
			> 365 – 370	DIR AB5	OD 6+	PF CE		915 x 1220	100-K0205-3-915x1220
			> 370 – 430	DIR AB5	OD 5+	PF CE			
			> 430 – 450	DIR AB4	OD 4+	PF CE			
			> 450 – 460	DIR AB3	OD 3+	PF CE			
			> 460 – 475	DIR AB2	OD 2+	PF CE			
			> 475 – 490	DIR AB1	OD 1+	PF CE			
			> 765 – 805	DM AB2 + IR AB2Y	OD 2+	PF CE			
			> 805 – 840	DM AB3 + IR AB3Y	OD 3+	PF CE			
			> 840 – 870	DM AB4 + IR AB4Y	OD 4+	PF CE			
			> 870 – 900	DM AB5 + IR AB5Y	OD 5+	PF CE			
			> 900 – 940	DM AB6 + I AB6Y + R AB5Y	OD 6+	PF CE			
			> 940 – 985	D AB6 + I AB6Y + R AB5Y + M AB7	OD 7+	PF CE			
			> 985 – 1020	D AB6 + I AB6Y + R AB5Y + M AB8	OD 8+	PF CE			
			> 1020 – 1050	D AB6 + I AB6Y + R AB5Y + M AB7	OD 7+	PF CE			
			> 1050 – 1070	D AB6 + I AB6Y + R AB5Y + M AB6	OD 6+	PF CE			
			> 1070 – 1105	DM AB5 + IR AB5Y	OD 5+	PF CE			
			> 1105 – 1165	DM AB4 + IR AB4Y	OD 4+	PF CE			
		> 1165 – 1725	DM AB3 + IR AB3Y	OD 3+	PF CE				
		> 1725 – 1795	DM AB2 + IR AB2Y	OD 2+	PF CE				

Filter			Protection level of the filter according to EN 12254				Max. size (mm)	size (mm)	Item No.
0205-6	VLT ~	34%	180 – 315	D AB8 + IR AB3	OD 10+	PF CE	915 x 1220	100 x 200	100-K0205-6-100x200
	Filter color	green	> 315 – 355	DIR AB5	OD 10+	PF CE			
	Thickness~	6mm	> 355 – 360	DIR AB5	OD 8+	PF CE		210 x 297	100-K0205-6-210x297
			> 360 – 365	DIR AB5	OD 7+	PF CE			
			> 365 – 370	DIR AB5	OD 6+	PF CE		915 x 1220	100-K0205-6-915x1220
			> 370 – 430	DIR AB5	OD 5+	PF CE			
			> 430 – 450	DIR AB4	OD 4+	PF CE			
			> 450 – 460	DIR AB3	OD 3+	PF CE			
			> 460 – 475	DIR AB2	OD 2+	PF CE			
			> 475 – 490	DIR AB1	OD 1+	PF CE			
			765 – 805	DM AB2 + IR AB2Y	OD 2+	PF CE			
			> 805 – 840	DM AB3 + IR AB3Y	OD 3+	PF CE			
			> 840 – 870	DM AB4 + IR AB4Y	OD 4+	PF CE			
			> 870 – 900	DM AB5 + IR AB5Y	OD 5+	PF CE			
			> 900 – 940	DM AB6 + I AB6Y + R AB5Y	OD 6+	PF CE			
			> 940 – 985	D AB6 + I AB6Y + R AB5Y + M AB7	OD 7+	PF CE			
			> 985 – 1020	D AB6 + I AB6Y + R AB5Y + M AB8	OD 8+	PF CE			
			> 1020 – 1050	D AB6 + I AB6Y + R AB5Y + M AB7	OD 7+	PF CE			
			> 1050 – 1070	D AB6 + I AB6Y + R AB5Y + M AB6	OD 6+	PF CE			
			> 1070 – 1105	DM AB5 + IR AB5Y	OD 5+	PF CE			
			> 1105 – 1165	DM AB4 + IR AB4Y	OD 4+	PF CE			
		> 1165 – 1725	DM AB3 + IR AB3Y	OD 3+	PF CE				
		> 1725 – 1795	DM AB2 + IR AB2Y	OD 2+	PF CE				

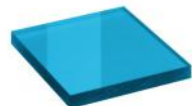
Filter			Protection level of the filter according to EN 12254				Max. size (mm)	size (mm)	Item No.
0206	VLT ~	20%	315 – 450	D LB5 + IR LB6	OD 6+	PF CE	610 x 915	100 x 200	100-K0206-100x200
	Filter color	green	> 450 – 465	DIR LB5	OD 5+	PF CE			
	Thickness~	3,5mm	> 465 – 475	DIR LB4	OD 4+	PF CE	915 x 1220 mm* *Minimum purchase: 5 plates	210 x 297	100-K0206-210x297
			> 475 – 480	DIR LB3	OD 3+	PF CE			
			> 480 – 490	DIR LB2	OD 2+	PF CE		915 x 1220	100-K0206-915x1220
			> 490 – 500	DIR LB1	OD 1+	PF CE			
			620 – 720	DIR LB1	OD 1+	PF CE			
			> 720 – 760	DIR LB2	OD 2+	PF CE			
			> 760 – 795	DIR LB3	OD 3+	PF CE			
			> 795 – 820	DIR LB4	OD 4+	PF CE			
			> 820 – 840	DIR LB5	OD 5+	PF CE			
			> 840 – 860	DIR LB6	OD 6+	PF CE			
			> 860 – 900	D LB6 + IR LB7	OD 7+	PF CE			
			> 900 – 1100	D LB6 + IR LB8	OD 8+	PF CE			
			> 1100 – 1125	D LB6 + IR LB7	OD 7+	PF CE			
			> 1125 – 1165	DIR LB6	OD 6+	PF CE			
			> 1165 – 1400	DIR LB5	OD 5+	PF CE			
			> 1400 – 1800	DI LB3 + M LB1	OD 3+	PF CE			
			2250 – 2450	DI LB3 + M LB1	OD 3+	PF CE			
			2750 – 3000	DI LB3 + M LB1	OD 3+	PF CE			

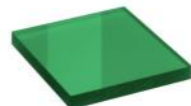

Filter			Protection level of the filter according to EN 12254				Max. size (mm)	size (mm)	Item No.
0221	VLT ~	2,9%	180 – 315	D AB7 + IR AB2	OD 10+	PF CE	2000 x 3000	100 x 200	100-K0221-100x200
	Filter color	blue	> 315 – 364	DIR AB5	OD 8+	PF CE			
	Thickness~	3,3mm	> 364 – 370	DIR AB4	OD 4+	PF CE		210 x 297	100-K0221-210x297
			> 370 – 378	DIR AB2	OD 2+	PF CE			
			> 378 – 390	DIR AB1	OD 1+	PF CE		610 x 915	100-K0221-610x915
			> 520 – 540	DIR AB1	OD 1+	PF CE			
			> 540 – 565	DIR AB2	OD 2+	PF CE			
			> 565 – 575	DIR AB3	OD 3+	PF CE			
			> 575 – 643	DIR AB4	OD 4+	PF CE			
			> 643 – 650	DIR AB3	OD 3+	PF CE			
			> 650 – 657	DIR AB2	OD 2+	PF CE			
		> 657 – 670	DIR AB1	OD 1+	PF CE				
0223	VLT ~	4,4%	180 – 315	D AB8 + IR AB3	OD 10+	PF CE	810 x 950	100 x 200	100-K0223-100x200
	Filter color	red	> 315 – 370	DIR AB5	OD 10+	PF CE			
	Thickness~	2,8mm	> 370 – 425	DIR AB5	OD 6+	PF CE		210 x 297	100-K0223-210x297
			> 425 – 435	DIR AB5	OD 7+	PF CE			
			> 435 – 450	DIR AB5	OD 8+	PF CE		610 x 915	100-K0223-610x915
			> 450 – 545	DIR AB5	OD 10+	PF CE			
			> 545 – 555	DIR AB5	OD 8+	PF CE			
			> 555 – 560	DIR AB5	OD 7+	PF CE			
			> 560 – 570	DIR AB5	OD 5+	PF CE			
			> 570 – 576	DIR AB4	OD 4+	PF CE			
			> 576 – 583	DIR AB3	OD 3+	PF CE			
		> 583 – 593	DIR AB2	OD 2+	PF CE				
		> 593 – 605	DIR AB1	OD 1+	PF CE				
0242-3	VLT ~	57%	180 – 315	D AB7 + IR AB2	OD 7+	PF CE	810 x 950	100 x 200	100-K0242-3-100x200
	Filter color	green	710 – 755	DIRM AB1	OD 1+	PF CE			
	Thickness~	3mm	> 755 – 785	DIRM AB2	OD 2+	PF CE		210 x 297	100-K0242-3-210x297
			> 785 – 805	DIRM AB3	OD 3+	PF CE			
			> 805 – 830	DIRM AB4	OD 4+	PF CE		810 x 950	100-K0242-3-810x950
			> 830 – 860	DIRM AB5	OD 5+	PF CE			
			> 860 – 880	DIRM AB6	OD 6+	PF CE		1000 x 1800	100-K0242-3-1.0x1.8m
			> 880 – 900	D AB6 + IRM AB7	OD 7+	PF CE			
			> 900 – 1070	D AB6 + IR AB7 + M AB8	OD 8+	PF CE			
			> 1070 – 1075	DIRM AB6	OD 6+	PF CE			
			> 1075 – 1080	DIRM AB5	OD 5+	PF CE			
			> 1080 – 1090	DIRM AB4	OD 4+	PF CE			
			> 1090 – 1100	DIRM AB3	OD 3+	PF CE			
			> 1100 – 1115	DIRM AB2	OD 2+	PF CE			
			> 2225 – 11000	D AB2	OD 2+	PF CE			

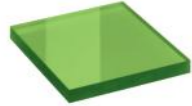
Filter			Protection level of the filter according to EN 12254				Max. size (mm)	size (mm)	Item No.	
0242-6	VLT ~	40%	180 – 315	D AB7 + IR AB2	OD 7+	PF CE	810 x 950	100 x 200	100-K0242-6-100x200	
	Filter color	green	710 – 755	DIRM AB1	OD 1+	PF CE				
	Thickness~	6mm	> 755 – 785	DIRM AB2	OD 2+	PF CE		210 x 297	100-K0242-6-210x297	
			> 785 – 805	DIRM AB3	OD 3+	PF CE				
			> 805 – 830	DIRM AB4	OD 4+	PF CE		810 x 950	100-K0242-6-810x950	
			> 830 – 860	DIRM AB5	OD 5+	PF CE				
			> 860 – 880	DIRM AB6	OD 6+	PF CE		1000 x 1800	100-K0242-6-1.0x1.8m	
			> 880 – 900	D AB6 + IRM AB7	OD 7+	PF CE				
			> 900 – 1070	D AB6 + IR AB7 + M AB8	OD 8+	PF CE				
			> 1070 – 1075	DIRM AB6	OD 6+	PF CE				
			> 1075 – 1080	DIRM AB5	OD 5+	PF CE				
			> 1080 – 1090	DIRM AB4	OD 4+	PF CE				
			> 1090 – 1100	DIRM AB3	OD 3+	PF CE				
			> 1100 – 1115	DIRM AB2	OD 2+	PF CE				
			> 2225 – 11000	D AB2	OD 2+	PF CE				
	0242-8	VLT ~	35%	180 – 315	D AB7 + IR AB2	OD 7+	PF CE	1000 x 1800	100 x 200	100-K0242-8-100x200
		Filter color	green	710 – 755	DIRM AB1	OD 1+	PF CE			
	Thickness~	8mm	> 755 – 785	DIRM AB2	OD 2+	PF CE		210 x 297	100-K0242-8-210x297	
			> 785 – 805	DIRM AB3	OD 3+	PF CE				
			> 805 – 830	DIRM AB4	OD 4+	PF CE		810 x 950	100-K0242-8-810x950	
			> 830 – 860	DIRM AB5	OD 5+	PF CE				
			> 860 – 880	DIRM AB6	OD 6+	PF CE		1000 x 1800	100-K0242-8-1.0x1.8m	
			> 880 – 900	D AB6 + IRM AB7	OD 7+	PF CE				
			> 900 – 1070	D AB6 + IR AB7 + M AB8	OD 8+	PF CE				
			> 1070 – 1075	DIRM AB6	OD 6+	PF CE				
			> 1075 – 1080	DIRM AB5	OD 5+	PF CE				
			> 1080 – 1090	DIRM AB4	OD 4+	PF CE				
			> 1090 – 1100	DIRM AB3	OD 3+	PF CE				
			> 1100 – 1115	DIRM AB2	OD 2+	PF CE				
			> 2225 – 11000	D AB2	OD 2+	PF CE				

Filter			Protection level of the filter according to EN 12254				Max. size (mm)	size (mm)	Item No.
0256	VLT ~	54%	180 – 315	D AB7 + IR AB2	OD 10+	PF CE	1000 x 1800	100 x 200	100-K0256-100x200
	Filter color	green	> 315 – 439	DIR AB5	OD 10+	PF CE			
	Thickness~	4mm	> 439 – 445	DIR AB5	OD 8+	PF CE		210 x 297	100-K0256-210x297
			> 445 – 452	DIR AB4	OD 4+	PF CE			
			> 452 – 460	DIR AB2	OD 2+	PF CE		810 x 950	100-K0256-810x950
			> 460 – 470	DIR AB1	OD 1+	PF CE			
			720 – 745	DIRM AB2	OD 2+	PF CE		1000 x 1800	100-K0256-1000x1800
			> 745 – 765	DIRM AB3	OD 3+	PF CE			
			> 765 – 780	DIRM AB4	OD 4+	PF CE			
			> 780 – 790	DIRM AB5	OD 5+	PF CE			
			> 790 – 805	DIRM AB6	OD 6+	PF CE			
			> 805 – 815	D AB6 + IRM AB7	OD 7+	PF CE			
			> 815 – 1080	D AB6 + IR AB7 + M AB8	OD 8+	PF CE			
			> 1080 – 1085	DIRM AB6	OD 6+	PF CE			
			> 1085 – 1095	DIRM AB5	OD 5+	PF CE			
			> 1095 – 1100	DIRM AB4	OD 4+	PF CE			
		> 1100 – 1110	DIRM AB3	OD 3+	PF CE				
		> 1110 – 1130	DIRM AB2	OD 2+	PF CE				
0259	VLT ~	66%	180 – 315	D AB7 + IR AB2	OD 7+	PF CE	2000 x 3000	100 x 200	100-K0259-100x200
	Filter color	yellow	> 315 – 452	D AB5	OD 9+	PF CE			
	Thickness~	3,1mm	> 452 – 460	D AB5	OD 8+	PF CE		210 x 297	100-K0259-210x297
			> 460 – 465	D AB5	OD 6+	PF CE			
			> 465 – 475	D AB4	OD 4+	PF CE		610 x 915	100-K0259-610x915
			> 475 – 482	D AB3	OD 3+	PF CE			
			> 482 – 490	D AB2	OD 2+	PF CE			
			> 490 – 502	D AB1	OD 1+	PF CE			
0285	VLT ~	40%	180 – 315	D AB7 + IR AB2	OD 10+	PF CE	1000 x 1800	100 x 200	100-K0285-100x200
	Filter color	orange	> 315 – 532	D AB6 + IR AB7 + M AB6	OD 9+	PF CE			
	Thickness~	3mm	> 532 – 540	DIRM AB4	OD 4+	PF CE		210 x 297	100-K0285-210x297
			> 540 – 548	DIRM AB2	OD 2+	PF CE			
			> 548 – 553	DIRM AB1	OD 1+	PF CE		810 x 950	100-K0285-810x950
								1000 x 1800	100-K0285-1000x1800

Filter			Protection level of the filter according to EN 12254				Max. size (mm)	size (mm)	Item No.
0293	VLT ~	25%	180 – 315	D AB8 + IR AB3	OD 10+	PF CE	1000 x 1800	100 x 200	100-K0293-100x200
	Filter color	amber	> 315 – 532	D AB5 + IR AB7 + M AB8	OD 9+	PF CE			
	Thickness~	4mm	> 532 – 541	DIRM AB4	OD 4+	PF CE		210 x 297	100-K0293-210x297
			> 541 – 544	DIRM AB3	OD 3+	PF CE			
			> 544 – 549	DIRM AB2	OD 2+	PF CE		810 x 950	100-K0293-810x950
			> 549 – 555	DIRM AB1	OD 1+	PF CE			
			> 690 – 722	DIRM AB1	OD 1+	PF CE		1000 x 1800	100-K0293-1000x1800
			> 722 – 745	DIRM AB2	OD 2+	PF CE			
			> 745 – 765	DIRM AB3	OD 3+	PF CE			
			> 765 – 780	DIRM AB4	OD 4+	PF CE			
			> 780 – 800	DIRM AB5	OD 5+	PF CE			
			> 800 – 815	DIRM AB6	OD 6+	PF CE			
			> 815 – 830	D AB6 + IRM AB7	OD 7+	PF CE			
			> 830 – 847	D AB6 + IR AB7 + M AB8	OD 8+	PF CE			
			> 847 – 862	D AB6 + IR AB7 + M AB9	OD 9+	PF CE			
			> 862 – 1065	D AB6 + IR AB7 + M AB9	OD 10+	PF CE			
			> 1065 – 1072	D AB6 + IR AB7 + M AB9	OD 9+	PF CE			
			> 1072 – 1077	D AB6 + IR AB7 + M AB8	OD 8+	PF CE			
			> 1077 – 1083	D AB6 + IRM AB7	OD 7+	PF CE			
			> 1083 – 1094	DIRM AB5	OD 5+	PF CE			
			> 1094 – 1102	DIRM AB4	OD 4+	PF CE			
			> 1102 – 1112	DIRM AB3	OD 3+	PF CE			
			> 1112 – 1125	DIRM AB2	OD 2+	PF CE			
		> 1125 – 1150	DIRM AB1	OD 1+	PF CE				
0323	VLT ~	57%	180 – 315	D AB7 + IR AB2	OD 7+	PF CE	610 x 915	100 x 200	100-K0323-100x200
	Filter color	grey	> 315 – 350	DIR AB5	OD 5+	PF CE			
	Thickness~	3mm	> 1380 – 1620	D AB1	OD 1+	PF CE		210 x 297	100-K0323-210x297
			> 1620 – 3000	D AB2	OD 2+	PF CE			
			> 1840 – 2110	D AB2	OD 3+	PF CE		610 x 915	100-K0323-610x915
			> 2110 – 2220	D AB2	OD 4+	PF CE			
			> 2220 – 2240	D AB2	OD 5+	PF CE			
			> 2240 – 2430	D AB2	OD 6+	PF CE			
			> 2430 – 2510	D AB2	OD 5+	PF CE			
			> 2510 – 3000	D AB2	OD 4+	PF CE			

Filter			Protection level of the filter according to EN 12254				Max. size (mm)	size (mm)	Item No.	
0355	VLT ~	30%	180 – 315	D AB7 + IR AB2	OD 9+	PF CE	1000 x 1800	100 x 200	100-K0355-100x200	
Filter color		blue	> 315 – 370	DIR AB5	OD 10+	PF CE				
Thickness~		3mm	> 370 – 375	DIR AB5	OD 6+	PF CE		210 x 297	100-K0355-210x297	
			> 375 – 380	DIR AB3	OD 3+	PF CE				
			> 380 – 390	DIR AB1	OD 1+	PF CE		810 x 950	100-K0355-810x950	
			> 570 – 582	DIR AB1	OD 1+	PF CE				
			> 582 – 592	DIR AB2	OD 2+	PF CE		1000 x 1800	100-K0355-1000x1800	
			> 592 – 603	DIR AB3	OD 3+	PF CE				
			> 603 – 610	DIR AB4	OD 4+	PF CE				
			> 610 – 615	DIR AB5	OD 5+	PF CE				
			615 – 623	DIR AB5	OD 7+	PF CE				
			623 – 663	DIR AB5	OD 10+	PF CE				
			663 – 667	DIR AB5	OD 6+	PF CE				
			667 – 672	DIR AB3	OD 3+	PF CE				
			672 – 675	DIR AB2	OD 2+	PF CE				
	675 – 680	DIR AB1	OD 1+	PF CE						

Filter			Protection level of the filter according to EN 12254				Max. size (mm)	size (mm)	Item No.	
0356	VLT ~	13%	180 – 315	D AB8 + IR AB3	OD 10+	PF CE	1000 x 1800	100 x 200	100-K0356-100x200	
Filter color		green	> 315 – 400	DIR AB5	OD 10+	PF CE				
Thickness~		3mm	> 400 – 430	DIR AB5	OD 7+	PF CE		210 x 297	100-K0356-210x297	
			> 430 – 440	DIR AB5	OD 5+	PF CE				
			> 440 – 445	DIR AB4	OD 4+	PF CE		810 x 950	100-K0356-810x950	
			> 445 – 450	DIR AB3	OD 3+	PF CE				
			> 450 – 455	DIR AB2	OD 2+	PF CE		1000 x 1800	100-K0356-1000x1800	
			> 583 – 593	DIR AB2	OD 2+	PF CE				
			> 593 – 605	DIR AB3	OD 3+	PF CE				
			> 605 – 612	DIR AB4	OD 4+	PF CE				
			> 612 – 618	DIR AB5	OD 6+	PF CE				
			> 618 – 623	DIR AB5	OD 8+	PF CE				
			> 623 – 665	DIR AB5	OD 10+	PF CE				
			> 665 – 670	DIR AB4	OD 4+	PF CE				
			> 670 – 677	DIR AB2	OD 2+	PF CE				
			> 677 – 685	DIR AB1	OD 1+	PF CE				
			> 715 – 745	DIR AB1	OD 1+	PF CE				
			> 745 – 770	DIR AB2	OD 2+	PF CE				
			> 770 – 790	DIR AB3	OD 3+	PF CE				
			> 790 – 807	DIR AB4	OD 4+	PF CE				
			> 807 – 825	DIR AB5	OD 5+	PF CE				
			> 825 – 835	DIR AB6	OD 6+	PF CE				
			> 835 – 855	D AB6 + IRM AB7	OD 7+	PF CE				
			> 855 – 875	D AB6 + IR AB7 + M AB8	OD 8+	PF CE				
			> 875 – 892	D AB6 + IR AB7 + M AB9	OD 9+	PF CE				
	> 892 – 1057	D AB6 + IR AB7 + M AB10	OD 10+	PF CE						
	> 1057 – 1065	D AB6 + IR AB7 + M AB8	OD 8+	PF CE						
	> 1065 – 1074	DIRM AB6	OD 6+	PF CE						
	> 1074 – 1082	DIRM AB5	OD 5+	PF CE						
0381	VLT ~	85%	9000 – 11500	DI LB4	OD 4+	PF S CE	2000 x 3000	100 x 200	100-K0381-100x200	
Filter color		clear								
Thickness~		6mm						210 x 297	100-K0381-210x297	
								2000 x 3000	100-K0381-2000x3000	

Filter			Protection level of the filter according to EN 12254			Max. size (mm)	size (mm)	Item No.	
0422	VLT ~	30%	180 – 315	D AB8 + IR AB3	OD 10+	PF CE	2438 x 1219	2438 x 1219	100-K0422-2438x1219
Filter color		green	> 315 – 435	DIR AB5	OD 6+	PF CE			
Thickness~		3.2mm	> 435 – 450	DIR AB5	OD 5+	PF CE			
Only available in the maximal format									
			> 450 – 460	DIR AB4	OD 4+	PF CE			
			> 460 – 470	DIR AB3	OD 3+	PF CE			
			> 470 – 480	DIR AB2	OD 2+	PF CE			
			> 480 – 495	DIR AB1	OD 1+	PF CE			
			> 675 – 745	DIRM AB1	OD 1+	PF CE			
			> 745 – 780	DIRM AB2	OD 2+	PF CE			
			> 780 – 810	DIRM AB3	OD 3+	PF CE			
			> 810 – 835	DIRM AB4	OD 4+	PF CE			
			> 835 – 860	DIRM AB5	OD 5+	PF CE			
			> 860 – 880	D AB5 + IRM AB6	OD 6+	PF CE			
			> 880 – 900	D AB 5 + IR AB7Y + M AB7	OD 7+	PF CE			
			> 900 – 930	D AB5 + IR AB7Y + M AB8	OD 8+	PF CE			
			> 930 – 1050	D AB 5 + IR AB7Y + M AB9	OD 9+	PF CE			
			> 1050 – 1075	D AB5 + IR AB7Y + M AB8	OD 8+	PF CE			
			> 1075 – 1095	D AB 5 + IR AB7Y + M AB7	OD 7+	PF CE			
> 1095 – 1120	D AB5 + IR AB6Y + M AB6	OD 6+	PF CE						
> 1120 – 1175	DM AB5 + IR AB5Y	OD 5+	PF CE						
> 1175 – 1400	DM AB4 + IR AB4Y	OD 4+	PF CE						
> 1400 – 1755	DIRM AB2	OD 3+	PF CE						
> 1755 – 1800	DIRM AB2	OD 2+	PF CE						

Article: **Laser protection windows mounting frame**

Description: With our ready-to-install mounting frames, mineral glass and plastic windows can be installed in laser protection booths, laser protection walls or in entrance doors. The powder-coated, black metal frames accept laser protection windows of approx. 10 mm thickness. Non-standard sizes and double frames are available on request.

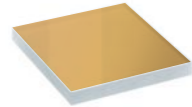
Standard dimensions of laser protection windows for mounting frames:	Mineral glass	Plastic
	100 x 200 mm	100 x 200 mm
	210 x 297 mm	210 x 297 mm

Item No.: **190-RAHMEN-100x200**
Color: black

Item No.: **190-RAHMEN-210x297**
Color: black

Item No.: **190-RAHMEN-SONDER**
Color: black



Anti-glare foil		
Article	Description	Size BxH (mm)
470-BLEND-CUSTOM-11	Anti-glare foil made of special plastic	Customer specific
Color	brown	
Thickness ~	0,5mm	
<p>The use of the anti-glare film is recommended for laser applications where glare can occur in the visible range, such as laser welding.</p> <p>Please observe the installation instructions. The anti-glare film can be applied to existing windows made of mineral glass or plastic. Price is calculated per m² on request.</p> <p>Attenuation at 400-700nm: 90-99%</p>		
		

Article: **Antistatic cleaner for plastics (250 ml)**

Description: Recommended for all plastic windows of PROTECT-Laserschutz GmbH. Tested for long-term damage due to chemical reactions.

Item No.: **970-ZUBE-RAS-250**



Article: **Polishing paste**

Description: QUIXX Scratch Remover. Polishing agent for removing scratches and blind spots from plastic surfaces.

Item No.: **970-POLREP-PASTE-50**



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