

KUBE PIR Transmissive Window Films

For front-windows, lens covers and protective hoods of PIR motion detectors, thermal imaging cameras and non-contact thermometers

Features:

- High transmission in the 7 to 14µm central passive infrared (PIR) band
- Excellent visible light absorption available for low false alarm rate / VdS conformity
- Replaces expensive IR windows such as Irtran
- RoHS and TSCA conform
- Suitable for vacuum forming of 3D parts
- Materials exhibit no substantial loss of specification over 10 years



All KUBE PIR transmissive window films are manufactured in Switzerland.

Opaque (natural colour of the material)

Thickness [mm]	Kube Type	Roll width [mm]	IR-Trans [%]	Visible 555nm [%]		UV	Fla	Ad	Remarks
				Stray	Coll				
0.05	2076	500	88	92	73	N	N	Y	SS
0.10	2077	500	83	87	61	Y	N	N	SS
0.14	2057	1050	81	92	50	Y	Y	N	
0.22	2058	500	70	84	43.5	YY	Y	Y	SS
0.22	2058a	500	75	84	43	Y	Y	Y	
0.30	2059	500	65	77	28	Y	Y	Y	
0.50	2140	500	62	68	11	Y	N	N	SS
1.00	2062	*	41	62	20	YY	N	N	

* Sheets with dimension 1m x 2m

White

Thickness [mm]	Kube Type	Roll width [mm]	IR-Trans [%]	Visible 555nm [%]		UV	Fla	Ad	Remarks
				Stray	Coll				
0.09	2023a	760	81	30	0.8	N	Y	Y	
0.11	2023	500 / 35	68	57	4.5	YY	N	Y	SS
0.11	2023d	500	60	46	1.9	YY	N	Y	
0.11	2023e	500	74	62	7.4	YY	N	Y	
0.13	2023b	760	68	54	2.8	YY	Y	N	
0.22	2018	500	56	45	1.6	YY	Y	Y	SS
0.22	2018c	500 / 55	55	43	1.5	Y	Y	Y	
0.22	2018d	500 / 55	59	43	1.5	Y	Y	Y	
0.25	2019	500	50	47	1.8	YY	Y	Y	suitable for vacuum forming
0.27	2025	370	39	35	1.1	YY	Y	Y	suitable for vacuum forming
0.31	2120a	500	51.5	51	2.2	Y	N	N	
0.33	2027a	500	51	44	1.8	YY	Y	Y	suitable for vacuum forming
0.50	2130	500	44	41	1.4	YY	N	N	SS

Super – White

Very high IR transmission due to micro-air-bubble technology instead of pigments

Thickness [mm]	Kube Type	Roll width [mm]	IR-Trans [%]	Visible 555nm [%]		UV	Fla	Ad	Remarks
				Stray	Coll				
0.10	2111	760	85	28	0.9	Y	N	Y	
0.22	2110	760/670/130	73	22	0.6	Y	N	Y2	SS
0.22	2110a	670 / 130	73	32	1.2	Y	N	Y2	SS textured
0.27	2114	760	49	11	0.2	Y	Y	Y2	paper-like texture & color

Beige / Ivory

Thickness [mm]	Kube Type	Roll width [mm]	IR-Trans [%]	Visible 555nm [%]		UV	Fla	Ad	Remarks
				Stray	Coll				
0.11	2036	500	64	37	1.5	YY	Y	Y	SS
0.11	2037	500	65	46	2.0	YY	Y	Y	ivory
0.13	2035	1000	69	54	2.9	YY	Y	N	
0.14	2034	500	65	50	2.1	YY	Y	N	

Gray

Thickness [mm]	Kube Type	Roll width [mm]	IR-Trans [%]	Visible 555nm [%]		UV	Fla	Ad	Remarks
				Stray	Coll				
0.11	2022	500	68	21	2.4	YY	N	Y	
0.22	2020	500	58	12	0.9	YY	Y	Y	SS

Black (also used as white light filter behind fresnel lenses)

Thickness [mm]	Kube Type	Roll width [mm]	IR-Trans [%]	Visible 555nm [%]		UV	Fla	Ad	Remarks
				Stray	Coll				
0.10	2041	760	72	16	6	Y	Y	Y	SS for white light filtering

Brown

Thickness [mm]	Kube Type	Roll width [mm]	IR-Trans [%]	Visible 555nm [%]		UV	Fla	Ad	Remarks
				Stray	Coll				
0.11	2038	500	51	5	0.2	Y	Y	Y	SS

Special products (different colours)

Thickness [mm]	Kube Type	Roll width [mm]	IR-Trans [%]	Visible 555nm [%]		UV	Fla	Ad	Remarks
				Stray	Coll				
0.22 white/red	2115	700	69	7	0.1	Y	N	Y	SS visible light blocking layer white front / red rear side
0.05 silver	2056	250	65	2	<0.1				one side semiconductor coated to block visible light

Film samples (sheet size A5)

- individual choice, or
- assorted set, includes film types marked SS (Sample Set) in "Remarks" column

Film orders

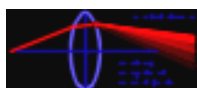
- cut by the meter
- as original roll
- special cuts or punched on request

Price List on www.kube.ch/downloads/pdf/kube_window_films_prices.pdf

Glossary

Thickness	is nominal, typically within $\pm 10\%$, maximum $\pm 15\%$ of the indicated thickness
Roll width	tolerances are +30mm / -0mm
IR-Trans	Infrared transmission in the central 7 to 14 μm (microns) PIR band
Stray	Transmission of visible light at 555nm wavelength, considering reflection losses
Coll	Transmission of a collimated beam of 555nm wavelength, considering reflection and stray light losses. The test arrangement corresponds to a motion detector with 22mm focal length lens. The number indicates the portion of a narrow beam that reaches the sensor
UV	N Not recommended for extended use under daylight conditions Y UV and light protection adequate for indoor use YY Recommended products for outdoor use
Fla	N No special flammability protection Y Flame retardant to IEC 695-2-1
Ad	N No special surface treatment Y Surface treatment to ease adhesion of glue, inside as rolled except where noted Y2 Treated on both sides
SS	Type included in Film Sample Set

Technical information For more details refer to:



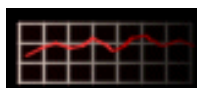
Optical, thermal and mechanical properties

www.kube.ch/downloads/pdf/kube_plastics_properties.pdf



Processing of injection moulding granulates

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Long term stability and answers to FAQ

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How to fix, glue and weld

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Flammability

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Material safety data sheet

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