

METOLIGHT® UV-Filter

METOLIGHT UV filter foils and UV filter sleeves are used to filter out the UV component from daylight or fluorescent lamps, thus providing a UV-free light.

Invisible UV rays from the sun and UV rays from artificial light sources, e.g. from fluorescent tubes, can cause considerable damage to certain materials, work and production processes. Straylight, in particular of fluorescent tubes without UV filters or daylight, is a frequently underestimated and often too late recognized source of error, which can cause considerable production or material damage. Here, METOLIGHT UV filters for covering windows and fluorescent lamps provide the solution

METOLIGHT® SF UV-Filter foils

METOLIGHT filter foils SFC-10, SFLY5, SFG-10 are clear or yellow / amber-tinted PET films for covering window surfaces and acrylic glass troughs of fluorescent lamps in the working area of photosensitive products or exhibits. They safely block UV light components, depending on the color of the film, from below 400 nm (clear) to 470 nm (yellow) or 520 nm (amber). The PET-based films, 90 µm in thickness, are protected against fading, are mounted between 2 window panes or fixed to the panes or troughs with the UV-resistant adhesive tape SKF-19. The films are delivered as rolls, 122 cm wide, 10 m long or as a blank. Longer rollware is available on request. The coating on both sides is not solvent resistant and not suitable for LED-light

We offer these filter foils:

METOLIGHT SFC-10, clear, blocks light below 400 nm, ideally where color changes are undesirable to the human eye, e.g. in museums, galleries, archives, libraries, offices, department stores, shops, showcases, counters, etc.

METOLIGHT SFG-10, amber, blocks light below 520 nm, suitable for highly sensitive resists, varnishes, paints, resins

METOLIGHT SFLY-5, yellow, blocks light below 470 nm, suitable for many resists, films, paints, paints

For laser areas, we offer differently tinted green filter foils (matching your laser systems).



METOLIGHT® ASR UV-Filter Sleeves

METOLIGHT- ASR filter sleeves are polycarbonate tubes with UV filter foils inside or coated UV blockers. Available in T5 (16 mm) and T8 (26 mm) diameter in all commercial lengths for fluorescent lamps. They limit the light spectrum of commercially available fluorescent lamps in order to be able to use them in various working areas for UV-curing products (for example, circuit board coating, resin processing). They are simply pushed over existing fluorescent lamps and centered at the lamp ends by means of the supplied end caps. At the same time, they serve as bursting protection and thus increase the working safety. They replace expensive yellow room CFL-tubes and amortise themselves in a short time by the use of cheap, commercially available white CFL tubes

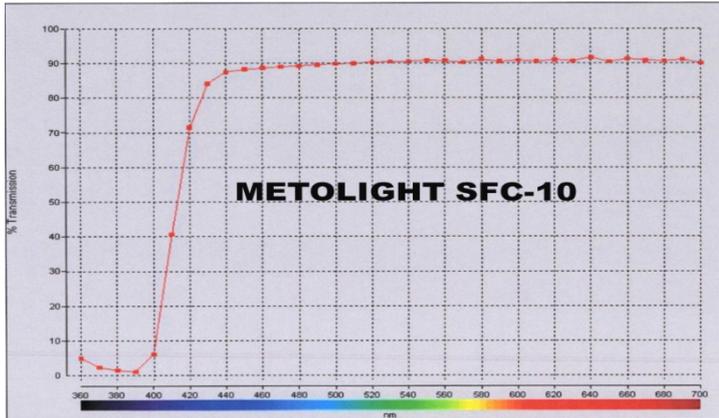
The filter sleeve METOLIGHT UV400 is very close to the fluorescent lamps, almost like a protective skin. It does not need end caps and only increases the outer diameter of the lamp by just under 1.5 mm. It is therefore suitable for use in luminaires with limited space inside. It is ideally suited for museums, libraries, galleries, archives, shops, department stores, for UV barrier below 400 nm protects the goods while offering full colour to the human eye.

For the darkroom area special filter tubes with a barrier effect of less than 625 nm have been developed in cooperation with Fuji, AGFA and KODAK. For the laser range there are tubes in different green tones, adapted to the different laser types and films.

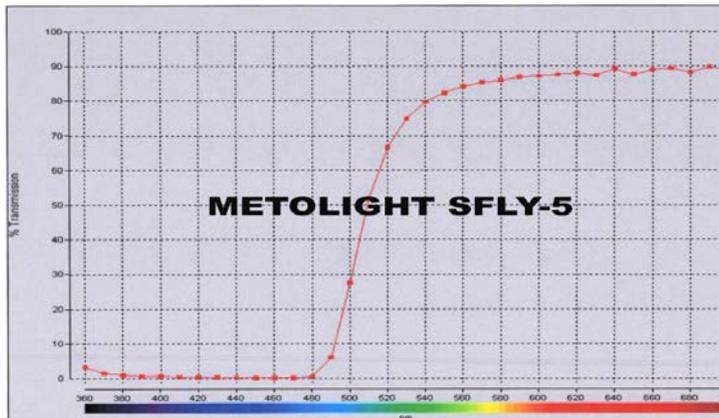
The filter tubes ASR-R10 is suitable for dark rooms when all wavelengths below 625 nm are disabled. They were developed in close collaboration with Agfa and Kodak, because inadequate and sometimes wrong lighting in the darkroom was and is still today a frequently underestimated and late recognized, expensive source of error. A single 150 cm ASR-R10 offers far more light than three conventional "hanging lights". 1 fluorescent tube with ASR-R-10, 120 cm is enough to illuminate surfaces up to 5m².



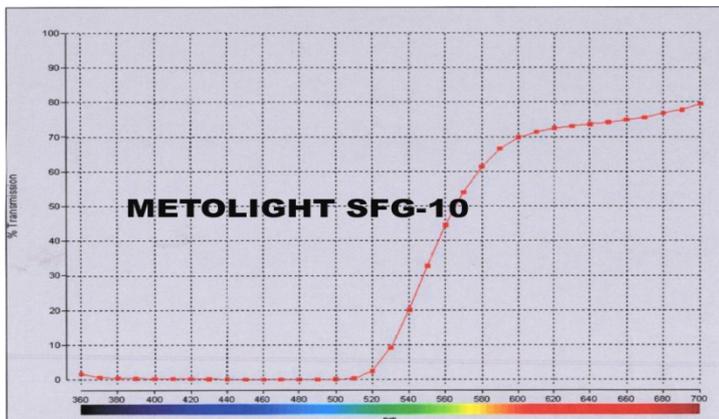
Filter curves of METOLIGHT UV-Foils and -Sleeves



The clear UV filter foil SFC-10 or the corresponding filter tubes ASR-C10 and UV-400 block the UV spectrum of the light spectrum below 400 nm. The human eye does not detect color changes. Thus, this filter film or the filter tubes is ideal for use in museums, libraries, archives, galleries, but also in shops or offices. The filter tube METOLIGHT UV-400 also offers the advantage that it easily fits into any lamp holder, even when using screens. It fits like a thin skin closely around the fluorescent lamp and increases the outer diameter by just under 1.5 mm.



The filter film SFLY-5 or the corresponding tube ASR-LY5 appear yellow for the human eye. They filter light below 470 nm from the light spectrum, leaving only yellow-red hues. They are recommended for use in yellow rooms when processing UV-curing inks, laquers, resins. They offer a brighter light compared to the ASF-G10 or ASR-G10 tube. However, we recommend a test especially when processing UV polymerizing products. Many of these products have, besides the main sensitivity at approximately 360 to 380 nm, a further sensitive range which can be above 470 nm.



The filter foil SFG-10 or the corresponding tube ASR-G-10 appears to the human eye amber. They block all light below 520 nm from the light spectrum, so that only yellow-red colors remain recognizable. They are used in yellow rooms, eg. pcb coating, chip industry, solar industry, beauty-industry, where reliable and broadband coverage of the UV component is important. In comparison to the film / sleeve LY-5 the filter effect up to over 520 nm is suitable for the processing of almost all UV-sensitive products.

Note: UV filter sleeves are only partially suitable for HO tubes because they become too hot and reduce the durability of the UV filter tubes due to the significantly higher UV levels. Please also use electronic starters instead of any existing mica starters for magnetic ballasts.

Protection Sleeves METOLIGHT® ASR-PR

METOLIGHT ASR-PR protection sleeves are plastic tubes that are pushed over commercially available fluorescent tubes. They serve as bursting and splinter protection and thus increase safety at work. The robust, clear polycarbonate sleeve withstands high as well as low temperatures (-90 °C to 125 °C), is fire resistant up to 500 °C, non-toxic, ensures unchanged clear light.

It is insensitive to inorganic acids and most organic acids, to fats and oils (sensitive to ammonia and its compounds and solutions). Protection sleeves ASR-PR are recommended for use in all lamps where there is a risk that the fluorescent tube may burst due to unintentional touch or impact.



Sizes of METOLIGHT®-UV-Filter Sleeves

Lamp power	Tube type		Outer diameter
	T5 – 16 mm Length	T8 – 26 mm Length	
6 Watt	220 mm		18 rsp. 21 mm
8 Watt	280 mm		18 rsp. 21 mm
13 Watt	520 mm		18 rsp. 21 mm
14 Watt	549 mm		18 rsp. 21 mm
15 Watt		450 mm	18 rsp. 32 mm
18 Watt		600 mm	18 rsp. 32 mm
21 Watt / 39 Watt	849 mm		18 rsp. 21 mm
28 Watt / 54 Watt	1149 mm		18 rsp. 21 mm
35 Watt / 49 / 80 Watt	1449 mm		18 rsp. 21 mm
38 Watt		1050 mm	18 rsp. 21 mm
36 Watt		1200 mm	28 rsp. 32 mm
58 Watt		1500 mm	28 rsp. 32 mm
70 Watt		1800 mm	28 rsp. 32 mm

Notes:

The UV filter sleeves ASR are suitable for all commercially available fluorescent tube lengths with T5 / T8 diameter. The tubes are made of polycarbonate, the end caps of Trirex 3020U. The sleeves are suitable for use in the temperature range from - 90 °C to + 120 °C.

The T5 filter tubes are not fully recommended for use with HO tubes because they become too hot. In general, when using filter sleeves, the fluorescent tubes are to be operated on an electronic ballast, but at least with electronic starters, since with conventional ballasts and mica starters, the tubes become too hot.

The UV filters degrade over time. It is therefore recommended to check the filter effect at least every 6 months using a suitable UV meter. The filter foils are not suitable for direct LED-light.

Conditionally suitable for use in water proof, air tight light fixtures and HO-CFL tubes.

Standards: RTI 125, UL94, glow wire test 850°C, IEC695-2-1, BSS454 1989, CE, WEEE and RoHS

Defective CFL-tubes with a conventional ballast must be replaced as temperatures of more than 250 °C can be reached as a result of persistent shortstarting, which can result in the burning of tubes and end caps. Electronic ballasts allow you to extend the lifetime of fluorescent lamps to over 10,000 hours.

UV-Filter foils:

UV filter films are coated on both sides with UV blockers. They are not abrasion resistant and may not be cleaned with solvents, alcohol or similar liquids as well as with microfibre cloths, since these damage the UV protection. We recommend to mount the filter films between 2 glass panes (or acrylic glass, polycarbonate).

UL-card

For the base of film and sleeves

Color	Min. Thick. (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	IEC GWIT	IEC GWFI
CL, NC	1.0	-	-	-	125	-	-	-	-
	1.5	HB	-	-	125	115	125	-	-
	6.0	V-0	-	-	125	115	125	-	-
CTI: -	IEC CTI: -	HVTR: -	D495: -			IEC Ball Pressure (°C): -			
Dielectric Strength (kV/mm): -	Volume Resistivity (10 ¹¹ ohm-cm): -		Dimensional Stability (%): -						
ISO Tensile Strength (MPa): -	ISO Flexural Strength (MPa): -		ISO Heat Deflection (°C): -						
ISO Tensile Impact (kJ/m ²): -	ISO Izod Impact (kJ/m ²): -		ISO Charpy Impact (kJ/m ²): -						
(f1)	Suitable for outdoor use with respect to exposure to Ultraviolet Light, Water Exposure and Immersion in accordance with UL 746C.								
Report Date: 5/23/1995	Underwriters Laboratories Inc®								
UL94 small-scale test data does not pertain to building materials, furnishings and related contents. UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in components and parts of end-product devices and appliances, where the acceptability of the combination is determined by ULI.									

The above statements are based on our present knowledge. Our statements should not be interpreted as a guarantee of characteristics. The use of our products by our customers is subject to different conditions, therefore none of our customers are relieved of the responsibility of testing our products by themselves. A liability for consequential damage will not be accepted in any case. For damage resulting from the use of this information we can only be held responsible if there is evidence of malice or negligence on our part. This data-sheet replaces any previous data sheets.

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