

# TECHNICAL DATASHEET

## TECHNISCHES DATENBLATT

### UV-filter tube for fluorescent tubes of size T5

Y520E212 T5

#### GENERAL INFORMATION

The UV-filter tube T5 Y520E212 is especially designed for UV photo-sensitive areas and blocks reliably ultraviolet and blue light below 520 nm. With this characteristic the UV-filter tube is suitable for applications in yellow rooms and laboratories in which UV-sensitive materials and products are being used and processed. This can be photoresist processing in micro lithography, fabrication of printed circuit boards and even to protect UV sensitive components in pharmaceutical production and research.

A clear polycarbonate tube forms the outer casing of the filter tube, which has inside a layer of yellow-dyed cellulose triacetate foil. Due to the type of filter material, a reliable UV protection can be achieved even for challenging applications or purposes. The Y520E212 UV-filter tube T5 is commonly used in the field of photolithography, the field of PCB, microelectronics manufacturing, photoresist fabrication, and handling of photoresists and diazofilms or other UV sensitive devices or components.

#### FEATURES

- Reliably blocks photons below 520 nm
- High heat resistance
- Outstanding optical purity
- Long-term UV-stable
- Not suitable for high-output (HO) tubes
- Easy installation
- CE, WEEE and ROHS compliant

#### TECHNICAL DATA

Material:	clear polycarbonate tube and dyed cellulose triacetate foil inside
Diameter:	end cap: 22 mm, tube: 20 mm
Length:	different lengths available (see page 3)
Temperature:	-90 °C to 120°C
Standards:	BS 5454 1989, CE, WEEE and ROHS

#### CHEMICAL CHARACTERISTICS

The UV-filter tube T5 Y520E212 is waterproof and resistant to oils, greases, weak mineral acids, weak organic acids, alcohols and aliphatic hydrocarbons. Chlorinated hydrocarbons, ketones and aromatic solvents will partially dissolve the surface of the filter tube, which may deteriorate the optical properties. The UV-filter tube is not resistant to concentrated acids and alkaline liquids, which attack the sheath of the tube.

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### OPTICAL TRANSMISSION

The transmission characteristics of the T5 Y520E212 are especially designed to the high quality requirements in "yellow rooms" (photo lithography during manufacturing of electronic devices). The graph shown below is semi-logarithmic. At 450 nm the transmission is approx. 0.0001 %, which means that the transmission has been blocked to the millionth part of incident light. If you want to compare this tube with other UV-filter tubes, please ask for a semi-logarithmic illustration. If you check the linear plot (right hand side), you will see nothing than zero entries, because you cannot distinguish 0.1 and 0.0001% in such a kind of plot!

Figure 1 (semi-logarithmic)

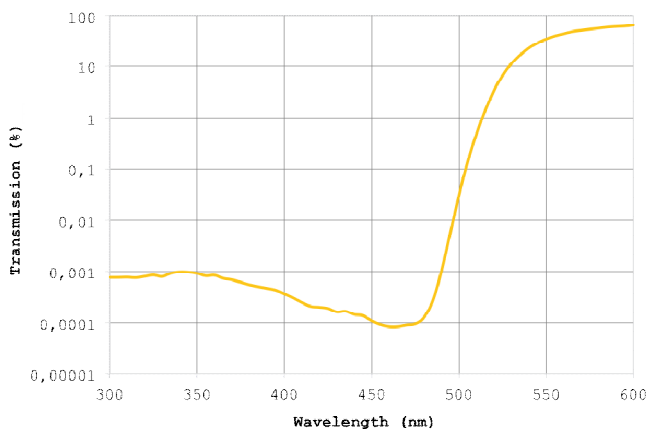
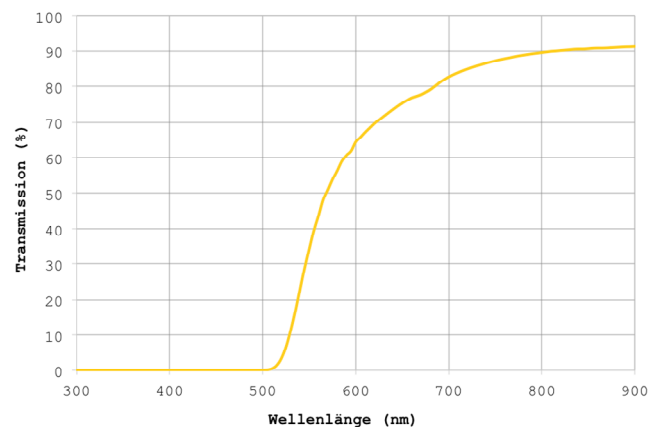


Figure 2 (linear)



The transmission spectrum is not to be understood as a specification, but as an exemplary measurement on a lot.

### FIRE BEHAVIOR

The UV-filter tube T5 Y520E212 is self-extinguishing.

### INSTALLATION

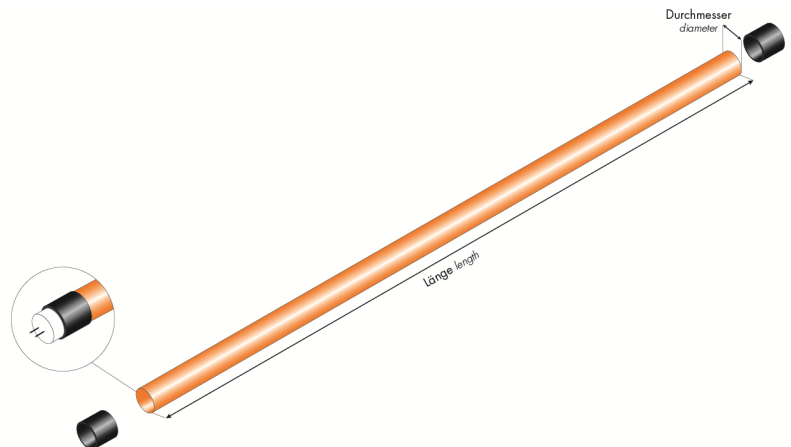
With the UV-filter tube T5 Y520E212 it is possible to get a UV-free light source from a standard T5 fluorescent tube. Remove both end caps from the filter tube and insert your T5 fluorescent bulb with a G5 socket into the filter tube. Subsequently close both sides of the UV filter tube light-proof with the included end caps. After the installation please check if the end caps seal the G5 socket properly, thus the UV filter tube can fulfill its specifications.

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### VERSANDEINHEITEN

Article-No.:	Ø	Length:	Watt:
GEFRT5023	20 mm	212 mm	6
GEFRT5030	20 mm	288 mm	8
GEFRT5052	20 mm	517 mm	13
GEFRT5055	20 mm	549 mm	14
GEFRT5085	20 mm	849 mm	21
GEFRT5115	20 mm	1.149 mm	28
GEFRT5145	20 mm	1.449 mm	35



### INCLUDED IN DELIVERY:

- 1 x Polycarbonate tube with installed UV-filter foil
- 2 x light-tight end cap for illuminant T5 with G5 socket

### Special Instructions

All data and information given are to the best of our knowledge and are based on measurement and experience. It remains in your responsibility to check the suitability of our UV filter tube for the intended use of it. Our products are regularly quality-tested and further developed. We therefore reserve the right to adjust and improve without additional information, the chemical composition or physical characteristics of new knowledge.

If you have any questions concerning special applications, please contact our technical support team.

Please feel free to contact us by e-mail or telephone.

E-Mail: [info@lithoprotect.com](mailto:info@lithoprotect.com)

Tel.: +49 (0) 731 3608 0916

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**durXtreme**

durXtreme GmbH  
Nicolaus-Otto-Str. 39  
89079 Ulm  
Germany