



Fraunhofer

**TESTED[®]
DEVICE**

BAUER KOMPRESSOREN GmbH

B-VIRUS FREE-459

Report No. BA 2603-1737

DUPLICATE

Statement of
Qualification

Single product
UVC radiation intensity

Customer	BAUER KOMPRESSOREN GmbH Stäblistrasse 8 81477 Munich Germany
Tested product	
Category:	Cleanroom Facilities
Subcategory:	Filtration Systems
Product name:	UVC reaction tube B-VIRUS FREE-459 (manufacturing date: 2026; color: silver/gray/white; model number: B-VIRUS FREE S; serial number: 26-684383)

Determination of UVC radiation intensity	
Standards/guidelines:	DIN EN 14255-1; DIN 5031-10 The norms stated generally refer to the version valid at the time of the tests.
Test equipment:	Data capture: Radiometer RMD (Model 814400)Opsytec Dr. Gröbel
Test environment:	Temperature:22 °C ±0.5 °C
Test procedure parameters:	- Measuring range:wavelength from $\lambda = 200\text{ nm}$ to $\lambda = 280\text{ nm}$ - Running-in time before start of measurement:..... 10 min - Measuring time per measuring point:10 s - Active throughflow:.....none

Test result / Classification	The UVC radiation intensity of the UVC reaction tube B-VIRUS FREE-459 was measured according to DIN EN 14255-1. The average irradiance measured was 50 mW/cm² (equates to 50 mJ/cm²*s). For the tested reaction tube, the following values were obtained according to DIN 5031-10 for an inactivation of influenza as a typical human-pathogenic virus:
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Inactivation of influenza					
Rate [%]	Required dose [mJ/cm²]	Irradiance [mJ/cm²*s]	V _{eff} [l]	t _{Limit} [s]	F _{max} [m³/h]
90	3.5	50	2.6	0.07	134
99	10.5			0.21	45
99.9	31.5			0.63	15

According to literature data from Bianco et. al., 2020¹, the following values are obtained for the inactivation of SARS-CoV-2 as a human pathogenic virus in the tested reaction tube:

Inactivation of SARS-CoV-2 (according to Bianco et. al., 2020 ¹)					
Rate [%]	Required dose [mJ/cm²]	Irradiance [mJ/cm²*s]	V _{eff} [l]	t _{Limit} [s]	F _{max} [m³/h]
99.9	3.7	50	2.6	0.07	127
total kill	16.9			0.34	28

¹Bianco, Andrea; Biasin, Mara; Pareschi, Giovanni; Cavalleri, Adalberto; Cavatorta, Claudia; Fenizia, Claudio et al. (2020): UV-C irradiation is highly effective in inactivating and inhibiting SARS-CoV-2 replication. In: medRxiv. DOI: 10.1101/2020.06.05.20123463

The measuring devices used for the qualification tests are calibrated at regular intervals; their results can be traced back to national and international standards. In cases where no national standards exist, the test procedure implemented complies with the technical regulations and norms applicable at the time of the test. The relevant documentation can be viewed on request at any time.

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Business unit Testing and Certification	BA 2603-1737 Report No. current document	Stuttgart, June 26, 2026 Place, current date
Nobelstrasse 12 70569 Stuttgart Germany	on behalf of  Dr.-Ing. Frank Bürger, head of business unit Testing and Certification	