



Fraunhofer

TESTED[®]
DEVICE

AKA LIGHTING GmbH
PE powdercoating PO-658-9010-001
Report No. AK 2507-1654

DUPLICATE

Statement of
Qualification

Single product
Chemical Resistance

Customer	AKA LIGHTING GmbH Siemensstrasse 6 71101 Schönaich Germany
Tested product	
Category:	Cleanroom Facilities
Subcategory:	Lighting Systems
Product name:	Polyester powdercoating P0-658-9010-001 (manufacturing date: 4/2025; color: RAL9010; article number: PO-658-9010-001)

Chemical resistance test	
Standards/guidelines:	VDI 2083 Part 17; ISO 2812-1; ISO 4628-1 The norms stated generally refer to the version valid at the time of the tests.
Test equipment:	- Microscope - Camera
Test environment parameters:	Temperature:.....22 °C ±0.5 °C
Test procedure parameters:	Immersion method - Chemicals:.....Formalin 37 %Ammoniac 25 %Hydrogen peroxide 30 %Sulfuric acid 5 %Phosphoric acid 30 %Peracetic acid 15 %Hydrochloric acid 5 %Isopropanol 100 %Sodium hydroxide 5 %Sodium hypochlorite 5 % - Incubation time: 1 h, 3 h, 6 h, 24 h

Test result / Classification

The chemical resistance of Polyester powdercoating P0-658-9010-001 was classified according to ISO 4628-1 and VDI 2083 Part 17 with the following result:

Chemical resistance	1 h	3 h	6 h	24 h
Formalin 37 %	0	0	0	0
Ammoniac 25 %	0	0	0	0
Hydrogen peroxide 30 %	0	0	0	0
Sulfuric acid 5 %	0	0	0	0
Phosphoric acid 30 %	0	0	0	0
Peracetic acid 15 %	1	2	3	5
Hydrochloric acid 5 %	0	0	0	0
Isopropanol 100 %	0	0	0	0
Sodium hydroxide 5 %	0	0	0	0
Sodium hypochlorite 5 %	0	0	0	0

The classification is based on a worst-case consideration. In the process, damage was assessed according to the classification system used in ISO 4628-1 and VDI 2083 Part 17:

0 = excellent 3 = weak
1 = very good 4 = very weak
2 = good 5 = none

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.

Detailed information and parameters of the test environment can be found in the Fraunhofer IPA test report.

Fraunhofer Institute for Manufacturing Engineering and Automation IPA

Business unit Testing and Certification

Nobelstrasse 12
70569 Stuttgart
Germany

AK 2507-1654

Report No. first document

--

Report No. current document

on behalf of

Dr.-Ing. Frank Bürger, head of business unit Testing and Certification

Stuttgart, February 6, 2026

Place, date of first document issued

--

Place, current date

