



# Fraunhofer

TESTED<sup>®</sup>  
DEVICE

Jung Gummitechnik GmbH

Jugitec Pharma

Report No. JU 1504-756

Statement of  
Qualification

Chemical Resistance

# Statement of Qualification

**Customer:** Jung Gummitechnik GmbH  
Robert-Bosch-Straße 12  
64683 Einhausen  
Germany

## Component tested

**Category:** Materials  
**Subcategory:** Consumables  
**Product name:** Jugitec Pharma  
(manufacturing date: 3/2015; color: black; type: 17BL06 180F;  
charge number: 19884)

## Chemical resistance test

**Standards/Guidelines:** ISO 2812-1  
The norm stated refers to the relevant editions applicable at the time of the tests.

**Testing 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 %  
..... Sulphuric 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:**  
(in acc. with ISO 4628-1/VDI 2083-17)

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
Sulphuric acid 5 %	0	0	0	0
Phosphoric acid 30 %	0	0	0	0
Peracetic acid 15 %	0	0	0	0
Hydrochloric acid 5 %	0	0	0	0
Isopropanol 100 %	1	3	3	4
Sodium hydroxide 5 %	0	0	0	0
Sodium hypochlorite 5 %	0	0	0	0
<b>Classification</b>	<b>0 / excellent</b>			

Chemical resistance has been classified on the basis of a worst-case consideration. In the process, damage was assessed according to the classification system used in ISO 4628-1 and VDI 2083-17:

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

Remark: Only the side of the glove that will face chemicals during the use has been analyzed.

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.

For further information about the test environment and parameters, please refer to the Fraunhofer IPA test report.