



**Fraunhofer**

**TESTED<sup>®</sup>  
DEVICE**

KANEKO CORD CO., LTD.  
G-FLON/UL2586-SB-CR AWG20  
**Report No. KA 1301-629**

DUPLICATE

Statement of  
Qualification

# Statement of Qualification

**Customer:** KANEKO CORD CO., LTD.  
80 Nakagawa Hosoe-Cho  
431-1304 Hamamatu-City, Shizuoka  
Japan

**Test results / Classification:**  
(according to ISO 14644-1)

The G-FLON/UL2586-SB-CR AWG20 series is suitable for use in cleanrooms fulfilling Air Cleanliness Class 2.

**Component tested:**

Category: Energy Supply  
Subcategory: Cable Systems  
Type: G-FLON/UL2586-SB-CR AWG20 series:  
• TP01: GF/2586-AWG20 x 2-SB-CR (Manufacturing date: 01/12/2012)  
• TP02: GF/2586-AWG20 x 6-SB-CR (Manufacturing date: 01/12/2012)  
• TP03: GF/2586-AWG20 x 10-SB-CR (Manufacturing date: 01/12/2012)

**Random check measurements of particle emission (airborne) at representative points**

Test procedure: According to VDI 2083 Part 9.1  
Measuring instruments: Optical Particle Counter:  
Model LasAir II 110 manufactured by PMS with measuring channels of  
0.1 µm, ≥ 0.2 µm, ≥ 0.3 µm, ≥ 0.5 µm, ≥ 1.0 µm and ≥ 5.0 µm  
Test parameters of the test environment:  
• Cleanroom Air Cleanliness Class (according to ISO 14644-1):..... ISO 1  
• Air flow velocity:..... 0.45 m/s  
• Air flow guidance: .....vertical unidirectional air flow  
• Temperature: .....22 °C ± 0.5 °C (71.6 °F ± 0.9 °F)  
• Relative humidity: ..... 45 % ± 5 %  
Test parameters of the test execution:  
• Energy chain (reference): .....igus E3.15.060.032.0  
• Cable length (TP01): ..... l = 1070 mm  
• Cable length (TP02): ..... l = 1115 mm  
• Cable length (TP03): ..... l = 1100 mm  
• Chain bending diameter (TP01 and TP02): ..... d = 120 mm  
• Chain bending diameter (TP03): ..... d = 180 mm  
• Stroke length: ..... s = 820 mm  
• Parameter set 1: ..... v<sub>1</sub> = 0.5 m/s; a<sub>1</sub> = 1.0 m/s<sup>2</sup>  
• Parameter set 2: ..... v<sub>2</sub> = 1.0 m/s; a<sub>2</sub> = 2.0 m/s<sup>2</sup>  
• Parameter set 3: ..... v<sub>3</sub> = 2.0 m/s; a<sub>3</sub> = 4.0 m/s<sup>2</sup>

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The measuring equipment used for the qualification is regularly calibrated and is based on national and international standards. In the case where no national standards exist, the measuring procedure used corresponds with technical regulations and norms valid at the time of the measurement. The documents drawn up for this procedure are available for viewing.

The validity of this certificate applies only to the mentioned product in this particular condition for a duration of 5 years.  
Further information: [www.tested-device.com](http://www.tested-device.com).


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Stuttgart, February 14, 2013

Place, Date

  
i. A.   
Project manager