



# CERTIFICATE OF ACCREDITATION

## ANSI National Accreditation Board

11617 Coldwater Road, Fort Wayne, IN 46845 USA

This is to certify that

**BYK - Gardner**  
c/o BYK-Gardner USA  
9104 Guilford Road  
Columbia, MD 21046, USA

(with satellite locations and capabilities identified on the scope of accreditation)

has been assessed by ANAB and meets the requirements of international standard

## ISO/IEC 17025:2017

while demonstrating technical competence in the field of

## CALIBRATION AND TESTING

Refer to the accompanying Scope of Accreditation for information regarding the types of activities to which this accreditation applies

AC-1534

Certificate Number

  
ANAB Approval

Certificate Valid Through: 04/28/2021  
Version No. 024 Issued: 03/14/2019



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.  
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



**ANSI National Accreditation Board**

**SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017**

**BYK – Gardner**

Dr. Ing Torsten Gruhn, 17025 Quality Manager  
Torsten.Gruhn@altana.com  
Phone: +49 (8171) 3493 341

This scope applies to the following locations:

**Headquarter**

**c/o BYK – Gardner GmbH**

Lausitzerstr.8, 82538 Geretsried, Germany

**Headquarter USA**

**c/o BYK–Gardner USA**

9104 Guilford Rd., Columbia, MD 21046, USA

**BYK-Gardner Service Point Spain**

**c/o Actega Artística S.A**

Calle Balmes 8, Suite: 3º 2ª, 08291 Ripollet, Spain

**BYK–Gardner Service Point France**

**c/o Eckart France S.A.S.**

31 Rue Amilcar Cipriani 93400, Saint Ouen, France

**BYK-Gardner Service Point China**

**c/o BYK (Tongling) Co., Ltd. Shanghai Branch**

Block 6A, Building A, No 88 Hong Cao Road,  
Xuhui District, Shanghai 200233, P.R China

**BYK-Gardner Service Point UK and Ireland**

**c/o BYK Additives Ltd**

450 Bath Road, Longford, Heathrow, UB7 0EB, United Kingdom

**BYK-Gardner Service Point Latin America**

**c/o MAST Serviços de Manutenção e Calibração de Equipamentos Ltda**

Rua Itaporanga, 340-B, Bairro Paraiso, Santo André – SP, 09190-640, Brazil

**BYK-Gardner Service Point Japan**

**c/o TETSUTANI CO., LTD**

Chuo-ku, Osaka, Tokui cho 2-2-2, Japan

**BYK-Gardner Service Point Austria, Hungary, Slovenia**

**c/o FRIEDRICH W. BLOCH GmbH**

Wagramerstrasse 201, 1210 Vienna, Austria

**BYK-Gardner Service Point India**

**c/o Premier Colorscan Instruments PVT. Ltd**

EL 130, Electronic Zone, M.I.D.C. Mahape, Navi Mumbai – 400710 India



**CALIBRATION AND TESTING**

Valid to: **April 28, 2021**

Certificate Number: **AC-1534**

**CALIBRATION**

**Length – Dimensional Metrology**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment	Locations <sup>5</sup>
Thickness byko-test units <sup>1,3</sup>	(0 to 100) μm (>100 to 250) μm (>250 to 3 000) μm	2.9 μm 4.6 μm 11 μm	Certified Shims	All
Thickness micro-Tri-gloss <sup>1,3</sup>	(0 to 100) μm (>100 to 250) μm (>250 to 3 000) μm	9.9 μm 11 μm 15 μm	Certified Shims	All

**Mass and Mass Related**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment	Locations <sup>5</sup>
Density Cups <sup>3</sup>	(8 to 101) ml	0.1 % of reading	Scale, Thermometer	Columbia, MD Geretsried, Germany
Kinematic Viscosity <sup>3,4</sup> Ford Cups DIN Cups ISO Cups	(10 to 100) sec	2.5 % of elapsed time 2 % of elapsed time 2 % of elapsed time	Thermometer, Timer, Certified Oil	Columbia, MD Geretsried, Germany
Rotational Viscosity <sup>3</sup>	(1 to 106 000 000) cP (40 to 141) KU	0.14 cP 0.53 KU	Thermometer, Certified Oil	Columbia, MD

**Photometry and Radiometry**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment	Locations <sup>5</sup>
Gloss <sup>1,2</sup>	(0 to 10) GU (>10 to 94) GU (>94 to 100) GU	0.21 GU 0.61 GU 0.41 GU	Gloss Standards	All
Color / Spectrophotometer <sup>1,2</sup>	(0 to 400) units	0.21 dE*(CIELab)	White and Color Standards	All
Clarity <sup>1,2,6</sup>	(0 to 100) %	0.2 %	Clarity Standards	All

**Photometry and Radiometry**

<b>Parameter/Equipment</b>	<b>Range</b>	<b>Expanded Uncertainty of Measurement (+/-)</b>	<b>Reference Standard, Method, and/or Equipment</b>	<b>Locations<sup>5</sup></b>
Transmission <sup>1,2,6</sup>	(0 to 50) % (>50 to 100) %	0.37 % 0.07 %	Transmission Standards	All
Haze <sup>1,2,6</sup>	(0.1 to 1) % (>1 to 10) % (>10 to 100) %	0.1 % 0.1 % 0.2 %	Haze Standards	All
Wavescan / DOI <sup>1,2</sup>	(0 to 99) units	1.7 units	Orange Peel Standards	All
Optical Radiation – Illuminance <sup>1,3</sup>	(50 to 200) fc (540 to 2 200) lx	10.9 fc 117 lx	Spectroradiometer	Columbia, MD Geretsried, Germany Ripollet, Spain Saint Ouen, France
Optical Radiation - Color Temperature <sup>1,3</sup>	(2 250 to 3 500) K (3 800 to 4 350) K (6 300 to 6 700) K	55 K 74 K 82 K	Spectroradiometer	Columbia, MD Geretsried, Germany Ripollet, Spain Saint Ouen, France

**Thermodynamic**

<b>Parameter / Equipment</b>	<b>Range</b>	<b>Expanded Uncertainty of Measurement (+/-)</b>	<b>Reference Standard, Method and/or Equipment</b>	<b>Locations<sup>5</sup></b>
Thermocouple Simulation <sup>3</sup>	Type K (0 to 500) °C	0.9 °C	Universal Calibrator	Columbia, MD Geretsried, Germany Vienna, Austria Shanghai, P.R China

## TESTING

### Dimensional

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment	Locations <sup>5</sup>
Thickness byko-test units <sup>1,3</sup>	(0 to 100) $\mu\text{m}$ (>100 to 250) $\mu\text{m}$ (>250 to 3 000) $\mu\text{m}$	2.9 $\mu\text{m}$ 4.6 $\mu\text{m}$ 11 $\mu\text{m}$	Certified Shims	All
Thickness micro-Tri-gloss <sup>1,3</sup>	(0 to 100) $\mu\text{m}$ (>100 to 250) $\mu\text{m}$ (>250 to 3 000) $\mu\text{m}$	9.9 $\mu\text{m}$ 11 $\mu\text{m}$ 15 $\mu\text{m}$	Certified Shims	All

### Mechanical

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment	Locations <sup>5</sup>
Density Cups <sup>3</sup>	(8 to 101) ml	0.1 % of reading	Scale, Thermometer	Columbia, MD Geretsried, Germany
Kinematic Viscosity <sup>3,4</sup> Ford Cups DIN Cups ISO Cups	(10 to 100) sec	2.5 % of elapsed time 2 % of elapsed time 2 % of elapsed time	Thermometer, Timer, Certified Oil	Columbia, MD Geretsried, Germany
Rotational Viscosity <sup>3</sup>	(1 to 106 000 000) cP (40 to 141) KU	0.14 cP 0.53 KU	Thermometer, Certified Oil	Columbia, MD

### Optical

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment	Locations <sup>5</sup>
Gloss <sup>1,2</sup>	(0 to 10) GU (>10 to 94) GU (>94 to 100) GU	0.21 GU 0.61 GU 0.41 GU	Gloss Standards	All
Color / Spectrophotometer <sup>1,2</sup>	(0 to 400) units	0.21 dE*(CIELab)	White and Color Standards	All
Clarity <sup>1,2,6</sup>	(0 to 100) %	0.2 %	Clarity Standards	All
Transmission <sup>1,2,6</sup>	(0 to 50) % (>50 to 100) %	0.37 % 0.07 %	Transmission Standards	All
Haze <sup>1,2,6</sup>	(0.1 to 1) % (>1 to 10) % (>10 to 100) %	0.1 % 0.1 % 0.2 %	Haze Standards	All

**Optical**

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment	Locations <sup>5</sup>
Wavescan / DOI <sup>1,2</sup>	(0 to 99) units	1.7 units	Orange Peel Standards	All
Optical Radiation – Illuminance <sup>1,3</sup>	(50 to 200) fc (540 to 2 200) lx	10.9 fc 117 lx	Spectroradiometer	Columbia, MD Geretsried, Germany Ripollet, Spain Saint Ouen, France
Optical Radiation - Color Temperature <sup>1,3</sup>	(2 250 to 3 500) K (3 800 to 4 350) K (6 300 to 6 700) K	55 K 74 K 82 K	Spectroradiometer	Columbia, MD Geretsried, Germany Ripollet, Spain Saint Ouen, France

**Thermal**

Parameter / Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method and/or Equipment	Locations <sup>5</sup>
Thermocouple Simulation <sup>3</sup>	Type K (0 to 500) °C	0.9 °C	Universal Calibrator	Columbia, MD Geretsried, Germany Vienna, Austria Shanghai, P.R China

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (k=2), corresponding to a confidence level of approximately 95%.

Notes:

1. On-site calibration and testing services are available for this parameter; based on strict protocols, the same uncertainties are achieved on-site.
2. Applies to both instruments and standards (standards can only be calibrated in-laboratory)
3. Applies to instruments only
4. Drain time of certified calibration oil
5. The capabilities of all sites are identical using same procedures and equipment, under the same environment conditions.
6. Unit-less measure expressed as a percentage.
7. This scope is formatted as part of a single document including Certificate of Accreditation No. AC-1534.



Vice President

