

The following requirements must be met for a firm to qualify as an Accredited Gem Lab (AGL). These requirements will be reviewed and updated based on current needs and technological developments. Please note that these requirements must be met by a Retail or ICGA firm member holding or applying for the AGL designation:

- a. The firm must have a Certified Gemologist® (CG) or Certified Gemologist® Appraiser (CGA or ICGA) in its employ to directly supervise the gem laboratory;
- b. The firm must have the laboratory located within the premises of the member firm and have physical space dedicated to the proper use of the gem testing equipment;
- c. The firm must have the laboratory equipped with the following testing instruments, tools, and reference material, as a minimum:
 - i. An adequate and current gemological library which may be physical, digital, or online
 - ii. Color master diamond comparator set, consisting of at least five (5) master diamonds that have been graded by GIA or AGS Laboratories, and meet the requirements as a qualified master set. For more information and qualifications, please reference the Color Master Requirements at [AGS.org/AccreditedGemLab](https://www.AGS.org/AccreditedGemLab).
 - iii. Color comparison set for colored gemstones and fancy colored diamonds such as Gem Dialogue®, Munsell Color®, GIA®, GemeWizard®, ColorCodex™, or similar
 - iv. Darkfield binocular microscope (minimum 10x with overhead fluorescent light attachment)
 - v. Carat scale capable of weighing accurately to 0.002 carats (1/50 point) with calibration capabilities
 - vi. Dichroscope
 - vii. Internet connection
 - viii. Lighting source: Daylight equivalent (approximately 6500 degrees Kelvin) or standardized color grading environment (GIA DiamondDock® or similar)
 - ix. Measuring device (Leveridge gauge or millimeter gauge)
 - x. Metals tester
 - xi. Photography equipment (cell phone or digital camera acceptable)
 - xii. Polariscope
 - xiii. Refractometer with polarizing plate and RI fluid
 - xiv. Laboratory-grown diamond screening and detection equipment (recommended standards are listed in the Addendum on the following page)
 - xv. Ultra-violet light, both longwave and shortwave

It is also recommended, but not required that the firm have:

- i. Diamond tester (thermal and electrical conductivity meters to screen for diamond simulants)
- ii. Fiber Optic Light Source
- iii. Non-Contact Optical Scanner
- iv. Spectroscope
- v. Gemstone Identification Filters
- vi. The most current edition of *The Practical Guide to Jewelry Appraising* by Cos Altobelli, ECGA; and
- vii. Carat scale attachments/hydrostat for determining specific gravity

An Accredited Gem Lab® must be operated in a professional and ethical manner, in accordance with the Membership Standards of the American Gem Society. Any member who operates a laboratory in such manner as to bring discredit upon the Society, by unwarranted discrediting of a competitor's merchandise, or by any other unethical conduct, shall be subject to probation, suspension, or expulsion from the Society or any other action recommended by the Grievance & Review Subcommittee.

An Accredited Gem Lab® is subject to audit without notice for compliance for the above elements. If the audit identifies non-compliant elements, the titleholder that oversees the AGL (AGL Principal) will have one (1) year from the date of Notice of Non-Compliance to rectify any issues that would cause non-compliance.

If you have any questions regarding this document, please contact membership@ags.org. To apply for the AGL® designation, please visit [AGS.org/AccreditedGemLab](https://www.AGS.org/AccreditedGemLab) to access the application.

The following table outlines the recommended standards for laboratory-grown diamond screening and detection equipment needed to qualify as an AGS Accredited Gem Lab®.

	Parameter	Definition	Recommendations
Primary Sample	Diamond False Positive Rate	Ratio of laboratory-grown diamonds and diamond simulants incorrectly classified as natural diamond to the total number of laboratory-grown diamonds and diamond simulants	0%
	Referral Rate	Ratio of natural diamonds being referred for further testing to the total number of natural diamonds	5% or less
	Diamond Accuracy	Ratio of natural diamonds correctly classified as natural diamonds to the total number of natural diamonds	95% or more
	Laboratory-grown Diamond Referral Rate	Ratio of laboratory-grown diamonds being referred for further testing to the total number of laboratory-grown diamonds	100% if listed
Smalls Sample	Diamond False Positive Rate	Ratio of laboratory-grown diamonds and diamond simulants incorrectly classified as natural diamond to the total number of laboratory-grown diamonds and diamond simulants	0% if listed
	Referral Rate	Ratio of natural diamonds being referred for further testing to the total number of natural diamonds	5% or less, (recommended)
	Diamond Accuracy	Ratio of natural diamonds classified as natural diamonds to the total number of natural diamonds	95% or more
	Laboratory-grown Diamond Referral Rate	Ratio of laboratory-grown diamonds being referred for further testing to the total number of laboratory-grown diamonds	100% if listed

The above recommendations are based on key metrics used for the testing of diamond verification instruments by Project ASSURE. The results of all instruments tested are available in the ASSURE Directory. When choosing a diamond verification instrument to purchase, please visit the ASSURE Directory to help make a decision based on the accuracy metrics listed for each instrument. Project ASSURE provides a third party assessment of all instruments submitted.

For the most up-to-date information, please visit the ASSURE website at naturaldiamonds.com/council/assure-diamond-verification. Testing is ongoing on new equipment and the instruments list on the ASSURE Directory may be updated from time to time.

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