



Keeping Up Credentials

Spring has sprung, after an unusually harsh winter for most of us. Spring brings warmer weather, blooming flowers and outside opportunities. It's a time of renewal. Here at NGC Testing Services, renewal means continuous improvement, ensuring quality, completing calibrations and other quality programs, as well as renewing and maintaining our important accreditations, such as IAS and NVLAP.

Laboratory accreditations are more than just letters; they reflect upon our laboratories' practices and ensure that test results are accurate. In this issue, we explain what is

behind all those accreditation letters, and list worldwide accreditation organizations with mutual recognitions. There are a lot of letters overall, as you will see. Also in this edition, speaking of letters, we look at R-Value testing, one of the many tests we offer. We will focus on the very important flame-spread testing we conduct here, and explain why it is important for life safety. As always, let us know if we can help in your test projects or answer any questions.

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DIDYOUKNOW?

ASTM E 84 is an important test to protect life safety....

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Focus On: R-Value Test

Thermal conductance is the time rate of steady state heat flow through a unit area of a material induced by a unit temperature difference. Experimentally, to measure the thermal conductance of a material, place a test specimen between two parallel plates at constant but different temperatures and measure the steady state one-dimensional heat flux through the specimen.

The inverse of thermal conductance is thermal resistance. Thermal resistance is the ability of a material to resist the flow of heat. In the building and construction industry, R-Value is a measure of thermal resistance. Under steady state conditions, it is the ratio of a temperature difference (ΔT) across a material and the heat flux (Q) flowing through it.

$$R = \Delta T / Q$$

Here at NGC Testing Services, we test in accordance with ASTM C 518 to determine R-Value of materials utilizing the principles as illustrated.

Precisely Maintained Hot Plate

Heat Flux Transducer

Test Specimen

Heat Flux Transducer

Precisely Maintained Cold Plate

What Do These Letters Mean?

ACCREDITATIONS/LISTINGS

Any laboratory you utilize should be accredited. Be sure to check a lab's scope of accreditation (list of tests it is accredited for) by looking under its lab code for that accreditation or listing. At NGC Testing Services, we are proud of our accreditations, which we believe are most preferred in the industry for the testing services we provide.

Gaining and maintaining accreditations requires a significant amount of effort, which includes establishing a comprehensive quality system, collection of data and periodic in-depth, on-site assessments.

NGC Testing Services Laboratories' Accreditations include:

NVLAP Accredited

Lab Code: 200291-0

NVLAP or the National Voluntary Laboratory Accreditation Program is administered by the National Institute of Standards and Technology (NIST), part of the U.S. Department of Commerce.

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ACCREDITATIONS/LISTINGS CONTINUED

IAS Accredited

Testing Laboratory 216
IAS or International Accreditation Service (IAS)
is a subsidiary of the International Code Council (ICC)

City of New York, MEA

Acceptance Laboratory
No. 102-01-L

California State Fire Marshal (OSFM)

Approved Testing Laboratory

Florida Building Commission

Approved Product Testing Laboratory

UL's Third Party Test Data Program (TPTDP)

Acoustical Testing
File DA1294

ISO/IEC 17025 Compliant

This is the basic requirement utilized by most laboratory accreditation organizations. Issued by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), it is the single most important standard for calibration and testing laboratories around the world. Laboratories that are accredited to this international standard have demonstrated that they are technically competent and able to produce precise and accurate test and/or calibration data.

Mutual Recognition Arrangements

In addition, there are Mutual Recognition Arrangements (MRA) among accreditation bodies around the world that include NVLAP and IAS, our primary accreditations. Two MRAs are APLAC (Asia Pacific Laboratory Accreditation Cooperation) organization and ILAC (International Laboratory Accreditation Cooperation). The following are lists by country and corresponding accreditation bodies that have signed a Mutual Recognition Arrangement through APLAC and/or ILAC:

APLAC MRA

Australia: NATA
Canada: SCC, CALA, QMP-LS
People's Republic of China: CNAS
Hong Kong China: HKAS
India: NABL, NABCB
Indonesia: KAN
Japan: JAB, IA, Japan, VLAC
Republic of Korea: KOLAS
Malaysia: Standards Malaysia
Mexico: ema
Mongolia: MNAS
New Zealand: IANZ
Pakistan: PNAC
Papua New Guinea: PNGLAS
Philippines: PAO
Russian Federation: AAC Analytica
Singapore: SAC
Sri Lanka: SLAB
Chinese Taipei: TAF
Thailand: DMSc, DSS, NSC-ONAC
USA: A2LA, ACLASS, IAS, A-S-B, NVLAP, P.J.L.A, AIHA-LAP
Vietnam: BoA
Australasia: JAS-ANZ
Brunei Darussalam Gulf Region: GAC
Peru: INDECOPI

ILAC MRA

Argentina: OAA
Australia: NATA, JAS-ANZ
Austria: Akkreditierung Austria
Belgium: BELAC
Bosnia and Herzegovina: BATA
Brazil: CGCRE
Canada: SCC, CALA, QMP-LS
Chile: INN
China: HKAS
People's Republic of China: CNAS
Costa Rica: ECA
Croatia: HAA
Cuba: ONARC
Cyprus: CYS, CYSAB
Czech Republic: CAI
Denmark: DANAK
Ecuador: OAE
Egypt: EGAC
Finland: FINAS
France: COFRAC
Germany: DAkkS
Greece: ESYD
Guatemala: OGA

Hungary: NAT
India: NABL, NABCB
Indonesia: KAN
Ireland: INAB
Israel: ISRAC
Italy: ACCREDIA
Jamaica: JANAAAC
Japan: JAB, IA, Japan, VLAC
Kazakhstan: NCA
Republic of Korea: KOLAS
Kyrgyz Republic: KCA
Luxembourg: OLAS
Malaysia: Standards Malaysia
Mexico: ema
Mongolia: MNAS
Netherlands: RvA
New Zealand: IANZ
Norway: NA
Pakistan: PNAC
Papua New Guinea: PNGLAS
Paraguay: ONA
Peru: INDECOPI
Philippines: PAO
Poland: PCA

Portugal: IPAC
Romania: RENAR
Russian Federation: AAC Analytica
Serbia: ATS
Singapore: SAC
Slovakia: SNAS
Slovenia: SA
South Africa: SANAS
Spain: ENAC
Sri Lanka: SLAB
Sweden: SWEDAC
Switzerland: SAS
Chinese Taipei: TAF
Thailand: BLQS-DMSc, NSC-ONAC, BLA-DSS
Former Yugoslav Republic of Macedonia: IARM
Tunisia: TUNAC
Turkey: TURKAK
United Arab Emirates: DAC
United Kingdom: UKAS
Uruguay: OUA
USA: A2LA, ACLASS, FQS, IAS, L-A-B, NVLAP, P.J.L.A, ASCLD/LAB, AIHA
Vietnam: BoA

DID YOU KNOW?

ASTM E 84 is one of the most widely accepted fire-testing methods. Commonly known as the



“tunnel test,” it checks the “Surface Burning Characteristics of Building Materials.” It was introduced in the early 1920s to evaluate “white wash” coatings. Currently, virtually all materials in buildings and other structures that require acceptance from national code bodies undergo the tunnel test. Typically, results are designated by code bodies as class A, B and C.

In November 1942, the Boston Coconut Grove nightclub went up in flames when synthetic palm tree decorations caught fire, killing 492. In February 2003, the pyrotechnics of headlining band Great White ignited the Station nightclub in West Warwick, R.I., killing 100 and injuring 230. In both cases, the same type of flame spread escalation that is attempted to be recreated in the tunnel test was noted. With this in mind, ASTM E 84 is an extremely important safety test.

The tunnel itself has been designated the “Steiner Tunnel,” named after Albert J. Steiner, an engineer who developed this and other fire-test methods. The 2 ft. x 24 ft. long horizontal tunnel is a closely controlled environment to ensure repeatable test results. Red oak flooring and cement board are utilized as reference standards in its calibration. In addition to ASTM E 84, this test method is also known as NFPA 255, UL 723 and UBC 8 1.

At NGC Testing Services, we conduct this and other important fire-testing procedures. Please call 716.873.9750 for details.

Please stay in touch!

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