

CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

SGS North America Incorporated 135 Technology Drive Christiansburg, VA 24073

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

This certificate is valid only when accompanied by a current scope of accreditation document. The current scope of accreditation can be verified at <u>www.anab.org</u>.





R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 04 June 2023 Certificate Number: L1191-1

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).



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

SGS North America Incorporated 135 Technology Drive

135 Technology Drive Christiansburg, VA 24073 Christina R. Paugh 540-961-4300

TESTING

Valid to: June 4, 2023

Certificate Number: L1191-1

Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Material Identification	ASTM E 1252 6.2; 6.3; 6.4; 6.5.2; 6.5.3; 6.5.4; 7.2; 7.3; 7.4; 7.6; 7.7; 7.9; 8.1; 9 ID 880 ID 892 ID893 ID894 ID 898	Liquids, solids vapors, polymers	Fourier Transform Infrared Spectroscopy (FTIR) Transmission, ATR, Microscope
Molecular Weight Monitoring	ASTM D2857 ISO 1628-1	Plastics, polymers, resins	Dilute Solution Viscometry (IV) Capillary viscometers
Elemental Content	ASTM D1976 ID 1760 ID1775 ID 45684	Plastics, polymers, rubber, paints, pigments	Inductively Coupled Plasma (ICP) Optical emission spectrometry (OES)
Assay for Purity	USP-NF - Benzalkonium Chloride Solution NF Monograph (Assay) ID 30816	Benzalkonium Chloride	Titration Titrimetry Liquid Chromatography (HPLC)
Moisture Content	ASTM D6869 ID 6521 ID 1025	Plastics, polymers, resins, rubber	Karl Fischer Oven Method
Specific Gravity (Density)	ASTM D792 ASTM D1505 Method C ID 926 ID 1009	Plastics, polymers, resins, rubber, paints, pigments, adhesives, sealants, coatings	Density by displacement kit, density by gradient column





Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Screening for Leachable Organic Compounds	ID 3177 ID 3216	Plastics, polymers, resins	Liquid Chromatography (HPLC) with Photodiode array detector (PDA) and Evaporative Light Scattering detector (ELSD) Gas Chromatography (GC) with Mass Spectrometry (MS)
Residual Lactide, Glycolide, Caprolactone Monomer	ID 1100	Plastics, polymers	Gas Chromatography (GC) with Flame ionization detector (FID)
Molecular Weight Distribution	ID 37605	Plastics, polymers, resins, paints, pigments, rubber, adhesives, sealants, coatings	Size-Exclusion Chromatography (SEC/GPC) with Multi-angle light scattering detector (MALS), Refractive index detector (RI)
Melting and Crystallization Temperatures, Enthalpy of Fusion and Crystallization, and Glass Transition Temperature	ASTM D3418 ID 917	Solids, powders, liquids	Differential Scanning Calorimeter (DSC)
Microscopic Imaging with Dimensional Morphology Surface Analysis for Elemental Composition	ID 52642	Solids	Scenning Electron Microscopy Energy Dispersive X-ray Spectroscopy (SEM-EDS)
Ash (Inorganic) Content	ASTM D5630 ID 934	Solid, powder, polymers, plastics	Muffle Furnace

Mechanical

Specific Tests and/or	Specification, Standard,	Items, Materials or	Key Equipment or
Properties Measured	Method, or Test Technique	Product Tested	Technology
Tensile and Flexural Strength, Stress, Strain, and Modulus	ASTM D638 ASTM D790 ID 941 ID 939	Plastics, polymers, coatings	Mechanical Testing System (MTS)





Mechanical

Specific Tests and/or	Specification, Standard,	Items, Materials or	Key Equipment or
Properties Measured	Method, or Test Technique	Product Tested	Technology
Izod & Charpy Impact Testing	ASTM D256 ASTM D6110 ASTM D4812 ISO 180 ID 45902	Plastics, polymers	Pendulum Impact Tester

Note:

- 1. This laboratory offers commercial testing service.
- 2. This scope is formatted as part of a single document including Certificate of Accreditation No. L1191-1.

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