CERTIFICATE OF ACCREDITATION

This is to attest that

CTC GLOBAL INC.

2026 MCGAW AVENUE
IRVINE, CALIFORNIA 92614, U.S.A.

Testing Laboratory TL-952

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories.* This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date December 17, 2024

IAS ACCREDITED

International Accreditation Service
Issued under the authority of IAS management

Visit www.iasonline.org for current accreditation information.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

CTC GLOBAL INC.

www.ctcglobal.com

Contact Name Thomas Parsons **Contact Phone** 1-949-533-2034

Accredited to ISO/IEC 17025:2017 *Effective Date December 17, 2024*

Composite Core Physical	
ASTM B987	Standard Specification for Carbon Fiber Thermoset Polymer Matrix Composite Core (CFC) for use in Overhead Electrical Conductors • Visual Inspection • Diameter/Density • Galvanic Layer Thickness • Ultimate Bend Test • Heat Exposure • Heat Stress
ASTM D618	Standard Practice for Conditioning Plastics for Testing
ASTM D2303	Standard Test Methods for Liquid-Contaminant, Inclined-Plane Tracking and Erosion of Insulating Materials • Brittle Fracture Test
ASTM D3916	Standard Test Method for Tensile Properties of Pultruded Glass-Fiber-Reinforced Plastic Rod • Ambient Tensile Properties • Elevated Temperature Tensile Strength
ASTM D4475	Standard Test Method for Apparent Horizontal Shear Strength of Pultruded Reinforced Plastic Rods by the Short-Beam Method
ASTM D5117	Standard Test Method for Dye Penetration of Solid Fiberglass Reinforced Pultruded Stock
CIGRE 426	Guide for Qualifying High Temperature Conductors for Use on Overhead Transmission Lines • Oven Aging/Thermal Cycling • Diameter/Density • Ultimate Bend Test • Tensile Strength • Tensile Elongation • Tensile Modulus of Elasticity • Heat Exposure • Brittle Fracture Test
IEC 62818	Conductors for overhead lines - Fiber reinforced composite core used as supporting member material • Visual Inspection • Oven Aging/Thermal Cycling

	• Diameter/Density • Galvanic Layer Thickness • Ultimate Bend Test • Tensile Strength • Tensile Elongation • Tensile Modulus of Elasticity • Torsion Test • Crush Test • Porosity and Fiber Matrix Repartition • Fiber Volume by TGA • Arrhenius Test
Composite Core Thermal	
ASTM B987	Standard Specification for Carbon Fiber Thermoset Polymer Matrix Composite Core (CFC) for use in Overhead Electrical Conductors • Heat Exposure • Heat Stress
ASTM D3916	Standard Test Method for Tensile Properties of Pultruded Glass-Fiber-Reinforced Plastic Rod • Elevated Temperature Tensile Strength
ASTM D5423	Standard Specification for Forced-Convection Laboratory Ovens for Evaluation of Electrical Insulation • Specimen Drying • Sample Drying • Heat Ageing • Isothermal Ageing • Temperature Cycling
ASTM D7028	Standard Test Method for Glass Transition Temperature (DMA Tg) of Polymer Matrix Composites by Dynamic Mechanical Analysis (DMA)
ISO 11358-1	Plastics — Thermogravimetry (TG) of polymers — Part 1: General principles • Fiber Volume by TGA
Conductor Physical	
ANSI C119.4	American National Standard for Electric Connectors-Connectors for Use between Aluminum-to-Aluminum and Aluminum-to-Copper Conductors Designed for Normal Operation at or Below 93 deg. C and Copper-to-Copper Conductors Designed for Normal Operation at or Below 100 deg. C • Conductor Splice and Dead-End Tensile Test
ASTM B263	Standard Test Method for Determination of Cross-Sectional Area of Stranded Conductors
ASTM B557	Standard Test Methods for Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products • Conductor Strand Tensile
ASTM B609	Standard Specification for Aluminum 1350 Round Wire, Annealed and Intermediate Tempers, for Electrical Purposes

ASTM B857	Standard Specification for Shaped Wire Compact Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Supported (ACSS/TW) (Section 7) • Conductor Lay Length
IEC 61284	Overhead lines - Requirements and tests for fittings • Conductor Splice and Dead-End Tensile Test