AC491 Establishes Provisions for Self-drilling Tapping Screws Used in Aluminum

First ICC-ES Evaluation Report under AC491 issued to ELCO Construction Products


ICC-ES recently completed ESR-4374 for ELCO Construction Products, addressing the Bi-Flex®, Dril-Flex® and Alumi-Flex® Self-Drilling Structural Screws used with several aluminum materials. The report is the first to be issued to demonstrate compliance with the requirements of AC491 and addresses compliance with the 2021, 2018, 2015 and 2012 International Building Code® and International Residential Code®. ELCO Construction Products is part of the DeWALT family of anchors and fasteners.

“We are pleased to offer the construction industry three unique product solutions suited for connections with aluminum”, said Bryan Knapp, Engineer at DeWALT & ELCO. "Supplementing our Bi-Flex®, Dril-Flex® and Alumi-Flex® Self-Drilling Structural Screws with an ICC-ES Evaluation Report was key to enhancing our offering of reliable, code-compliant fastening solutions. It allowed us to provide robust data for applications with aluminum where previous technical guidance was limited and specific criteria such as AC491 did not exist before.”
DeWALT & ELCO Self-Drilling Structural Screws are designed for use with aluminum.

"With this project we have expanded our understanding of the code requirements for screws used in aluminum", said Elyse Levy, ICC-ES Senior Staff Engineer. "We are happy to have been able to help our client provide independently verified technical guidance on this important fastening application."

ESR-4374 includes a Los Angeles Building Code and Los Angeles Residential Code supplement and is available for free public viewing here. AC491 is available for purchase here.

Learn more about ICC-ES Acceptance Criteria development. ICC-ES encourages manufacturers to comply with the most current codes to increase market acceptance.

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About ICC-ES

ICC-ES is the leading evaluation service for innovative building materials, components and systems. ICC-ES Evaluation Reports (ESRs), Building Product Listings and PMG Listings provide evidence that products and systems meet requirements of codes and technical standards worldwide, including the US, Canada, Mexico, Australia, New Zealand, and the MENA region. ICC-ES is a member of the ICC family of solutions.