



Media contact:
Jim Wolsiefer
Phone: (631) 724-8639
E-Mail: jim@silicafume.org

Media Release

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Life-365 Version 2.2.1 Model – Updated to include Estimating Maximum Surface Chlorides with ASTM C1556

Life-365 Service Life Prediction Model™ is a standardized software model developed by a consortium of industry associations established under the American Concrete Institute's (ACI) Strategic Development Council in 1998. In use for over 15-years by the civil engineering community, *Life-365* is used to evaluate the service life of steel reinforced concrete structures by comparing different strategies and techniques for increasing the service life of the structure. A new feature is being introduced to Life-365 (v2.2.1) that includes a module that can estimate the maximum surface chloride concentration using the ASTM C1556 Method (ASTM, 2012).

The most difficult challenge during the early development of Life-365 was establishing estimates of the *maximum surface chloride concentration* that concrete could be exposed to in the field. Exposure varies by locale, environment, and type of concrete structure; efforts at that time focused on compiling salt-loading information from a limited number of resources that had sufficient data to extract estimates. "The default salt-loading values were perhaps the weakest link in previous versions. With this new chloride-profile module it may well be one of Life-365's strongest features, especially for those global and domestic users whose regions were not covered by any of the default values." commented Dr. Mark Ehlen, economist, consultant and software developer of Life-365.

“With the new ASTM C1556 chloride-profile module, the Life-365 SL and LC model becomes a powerful tool for all domestic and global users, who previously had to estimate a best guess for their local salt-loading needed to run the software,” stated Tony Kojundic, of the Silica Fume Association, and member of the technical consortium developing this software.

The core calculations, functionality and existing industry-accepted time-to-corrosion engine running Life-365 v2.2 remain unchanged from previous versions. Those calculations are based on well-defined industry-accepted methods for predicting service life and performing life-cycle cost calculations and all are completely described in the software manual.

Consortium III was formed in February 2012 to continue the development and improvement of Life-365. The members of that consortium include:

BASF ADMIXTURE SYSTEMS

CORTEC

EPOXY INTEREST GROUP - CONCRETE REINFORCING STEEL INSTITUTE (CRSI)

EUCLID CHEMICAL

GRACE CONSTRUCTION PRODUCTS

NATIONAL READY-MIXED CONCRETE ASSOCIATION (NRMCA)

SIKA CORPORATION

SILICA FUME ASSOCIATION (SFA)

SLAG CEMENT ASSOCIATION (SCA)

<http://www.life-365.org>

Life-365 NOW AVAILABLE! Software v2.2

Life-365 is software designed to estimate the service life and life-cycle costs of alternative concrete mixture designs proportions and life-cycle costs of alternative concrete mixture designs proportions and corrosion protection systems. It follows research-based methodology developed by the Life-365 Consortium I and II groups of companies, that gives estimates on the effects of design, chloride exposure, environmental temperature, high-performance concrete mixture proportions, surface barriers, and steel types on the service life and life-cycle cost of steel-reinforced concrete structures.

The simplistic model is a fundamental tool for design consultants of steel-reinforced concrete structures that will be exposed to chlorides, who wish to estimate the service life and life cycle costs of alternative protection systems in their design.

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