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Standard Guide for In-Situ Structural Silicone Glazing Evaluation¹

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INTRODUCTION

SSG is popular because of its unique method of retaining glass or other panels in smooth exterior walls, interrupted only by narrow sealant joints. The first four-sided SSG in commercial construction is on the former corporate headquarters building of SHG Incorporated (formerly known as Smith, Hinchman & Grylls) in Detroit, MI, built in 1971. Since then, buildings containing two- or four-sided (or, occasionally, other numbers of sides of nonrectangular-shaped panels) SSG walls have been constructed within most cities, some as tall as 80 stories.

While SSG popularity increases, the sealant industry remains concerned over potential failures due to the increasing number of buildings containing structural glazing that are aging; unknown structural sealant durability; and the level of understanding of the principles of SSG by glazers. This guide addresses these concerns by providing suggestions for in situ evaluations of completed installations of any age.

1. Scope

1.1 It is recommended to periodically evaluate the existing condition of structural sealant glazing (hereinafter called SSG) installations in situ to detect problems before they become severe or pervasive. Evaluation of existing SSG installations are required by certain building codes and local ordinances. This guide provides a program to evaluate the existing conditions, lists typical conditions, which might be found, and suggests times when such evaluations are appropriate. The committee with jurisdiction over this standard is not aware of any comparable standards published by any other organizations.

¹ This guide is under the jurisdiction of ASTM Committee C24 on Building Seals and Sealants and is the direct responsibility of Subcommittee C24.10 on Specifications, Guides, and Practices.

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