

TECHNICAL BULLETIN – M 550 D

ACIDSIL SR

Acid Resistant Mortar

Product Description

ACIDSIL SR Acid Resistant Mortar is a halogen-free silicate type mortar made with selective size graded silica fillers. The liquid binder is a two-component silicate solution designed for both reduced set time and excellent resistance to steam.

Application

ACIDSIL SR Mortar is shipped in 46 lb (21 kg) pails or 600 (273 kg) drums of solution and 53 lb (24 kg) bags of filler. It will keep indefinitely if stored at temperatures above freezing.

Each batch of mortar will require blending one (1) part of ACIDSIL Z Solution with one (1) part of ACIDSIL SR Solution. Pre-blend only enough ACIDSIL Z + SR solution required for an 8–12-hour shift consumption. Add 4.5 parts by weight of ACIDSIL SR Powder to 1-part Blended Solution and mix thoroughly. The working life of the mixed batch is approximately 20-30 minutes depending on the temperature. (Thinning the mortar by addition of water or excess binder will interfere with the hardening action and lower the resistance of the finished mortar joint).

The working life of ACIDSIL SR Mortar depends upon the temperature. Best results are obtained by mixing small batches of mortar. After mixing, the mortar should be spread evenly over the bottom of the pan. When the mortar fails to adhere to brick, it has begun to set and must be discarded. Nothing can be added to partially set mortar to renew its original consistency.

ACIDSIL SR Mortar is handled in the same manner as ordinary building cement. It never should be applied to wet or frozen brick, or to acid-soaked surfaces. Joints between brick should be made as thin as possible, preferably 1/8" wide. For corrosive services, the use of thin joints is more important than straight mortar lines.

When working at temperatures below 50°F (10°C), the hardening action may be hastened by heating the brick and ACIDSIL SR Mortar components to about 80°F (27°C) prior to installation. Maintain the temperature in the vessel at a minimum of 50°F (10°C) until the mortar has set.

Safety

ACIDSIL SR Powder should be handled carefully to avoid excessive dust. Dust respirators should be worn during the mixing operation. Since the ACIDSIL SR Solution is caustic, gloves, eye goggles, and long-sleeved shirts should be worn to protect the skin. Material Safety Data Sheets should be read before use.

Typical Physical Data

Bulk Density	156 lb/ft ³	2,499 kg/m ³
Coefficient of Thermal Expansion	3.87 x 10 ⁻⁶ in/in/°F	6.96 x 10 ⁻⁶ mm/mm/°C
Compressive Strength	4,500 psi	31 MPa
Tensile Strength	500 psi	3.5 MPa
Modulus of Rupture	1,500 psi	10 MPa
Water Absorption	8 %	8 %
Color	Gray	Gray

The Physical Data derived by using ASTM test methods: C-905 Bulk Density, C-579 Compressive Strength, E-228 CTE, C-580 MOE, C-307 Tensile Strength and C-143 Water Absorption.

Note

The information contained in this bulletin is believed to be accurate and reliable but is not to be construed as implying any warranty or guarantee of performance. Data are subject to reasonable variations and should not be used for specification purposes.

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