

TECHNICAL BULLETIN – M 501 A

PERMANITE® S (Silica Filled)

Acid Resistant Mortar

Product Description

PERMANITE® S Acid Resistant Mortar is a two-component mortar designed to provide exceptional chemical resistance, and excellent strength retention at elevated temperatures.

The liquid binder, **PERMANITE Resin**, is a furfuryl resin that has superior resistance to solvents and acids at operating temperatures up to 375°F (191°C).

The filler, **PERMANITE S Powder**, is a carefully selected, size graded silica with special additives to enhance trowel-ability and prevent “bleeding” or mortar running out of brick joints.

Application

A standard unit of **PERMANITE S Mortar** consists of one (1) 45 lb. (20 kg) pail of resin and three (3) 45 lb. (20 kg) bags of powder. **PERMANITE Resin** can also be shipped in 500 lb. (227 kg) drums.

PERMANITE Mortar is made by adding the appropriate amount of PERMANITE Powder to a measured quantity of PERMANITE Resin and mixing until thoroughly blended. Mortar of suitable consistency for laying acid brick will require 3 parts of powder to 1 part of resin.

Best results are obtained by mixing small batches of mortar. Joints between brick should be made as thin as practical, preferably 1/8” (3 mm). Once the mortar has started to set, it cannot be reworked and must be discarded. To clean tools, wipe with MEK or sandblast.

Safety

PERMANITE Resin is flammable. Therefore, flames, sparks, and ignition sources should be kept at a distance. Provide adequate ventilation and wear proper safety equipment. Material Safety Data Sheets must be read before use.

Typical Physical Data

Bulk Density	112 lb/ft ³	1,800 kg/m ³
Compressive Strength	5,000 psi	35 MPa
Coefficient Thermal Expansion	1.3*10 ⁻⁵ in/in/°F	2.4*10 ⁻⁵ mm/mm/°C
Modulus of Rupture	1,000 psi	7 MPa
Tensile Strength	600 psi	4 MPa
Water Absorption	0.9 %	0.9 %
Shrinkage	<0.5 %	<0.5 %
Color	Black	Black

The above physical data was derived by using ASTM Test Specifications C-905, C-579, C-580, C-307, C-143.

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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