

SAUEREISEN

SULFUR BASE MORTARS BASOLIT NO. 600 CARBON BASOLIT NO. 610

Sauereisen Nos. 600 and 610 Sulfur Based Mortars are used in the construction of floors, trenches, sumps and tanks in steel mills, mines, metal finishing and chemical processing plants. They are also used as a capping compound for concrete test cylinders and in assembly of abrasive grinding wheels.

Outstanding characteristics

No. 600 and No. 610 mortars are manufactured in both ingot/briquette and flake forms. The No. 600/610 mortars melt rapidly, set quickly - within minutes, and meet most production requirements.

No. 600 is silica-filled, while No. 610 is carbon-filled for those applications where hydrofluoric acid exposure is encountered. Refer to Sauereisen Chemical Resistance Chart for suitability in specific chemical service.

No. 600/610 mortars can be used in accordance with ANSI/ASTM C386, "Standard Practice for Use of Chemical-Resistant Sulfur Mortar."

No. 600/610 comply with the requirements of ANSI/ASTM C617, "Standard Method of Capping Cylindrical Concrete Specimens."

AREA PREPARATION

Temperature of Working Area

Maintain a temperature of 50° on air, brick, substrate, during mixing, application, and cure.

Surface Preparation

All surfaces in contact with No. 600/610 should be clean, dry, and free of dust, dirt, grease, oil, and other contaminants that may inhibit bond of No. 600. Surface prep should be in accordance with membrane requirements.

PHYSICAL PROPERTIES	No. 600	No. 610
Bond strength (ASTM C321)	150 psi (10.5 kg/cm ²)	45 psi (3.2 kg/cm ²)
Compressive strength (ASTM C579)	9,000 psi (632.7 kg/cm ²)	6,500 psi (457 kg/cm ²)
(ASTM C617)	8,000 psi (562.4 kg/cm ²)	6,500 psi (457 kg/cm ²)
Density (modified ASTM D71)	136.5 pcf (2.19 gm/cm ³)	123.7 pcf (1.98 gm/cm ³)
Dielectric constant 60 HZ @ 84°F (29°C) maximum	2.92 average	--
Maximum Service Temperature	190°F (88°C)	190°F (88°C)
Power factor 60 HZ @ 84°F (29°C) maximum	0.004 average	--
Tensile strength (ASTM C307)	605 psi (42.6 kg/cm ²)	675 psi (47.5 kg/cm ²)

Physical properties were determined on specimens prepared under laboratory conditions using applicable ASTM procedures. Actual field conditions may vary and yield different results; therefore, data are subject to reasonable deviation.

APPLICATION

Melting

No. 600/610 must be melted to a free flowing state for use. Place a quantity of No. 600/610 into a suitable clean, dry, steel, temperature-controlled kettle and melt to a smooth, free flowing liquid at 265°F to 290°F. Stir occasionally while melting or when adding more material.

If heated above 300°F, the material thickens. To reduce viscosity and lower the temperature to optimum range, remove the heating element and/or add additional No. 600/610 material. Overheated material is still usable after temperature has decreased to 260°F - 290°F, provided temperature has not exceeded 300°F.

Installation

Floors - Using a suitable pouring container, apply a thin layer of No. 600/610 over membrane to prevent damage prior to brick installation. Set the masonry units on No. 620 wood spacers and align brickwork, maintaining 1/4 inch wide vertical joints.

Pour molten No. 600/610 into verticle joints until completely filled.

Walls - Set the masonry units on No. 620 wood spacers and form 1/4 inch wide horizontal and vertical joints. Install a single layer at a time and fill joints before proceeding with successive layers. When the exposed joints are to be No. 600/610, they must be taped with muslin strips saturated in Sauereisen No. 14 to retain the molten mortar until it congeals. Muslin may be stripped, resaturated and reused as soon as No. 600/610 Mortar congeals. The pour should stop when the joint is approximately 1/2 inch below the top surface of the masonry unit to provide a key for subsequent courses.

No.600/610 - APPLICATION

Temperature of Capping Plate

Maintain an optimum temperature of 85°F to 90°F on the capping plate to prevent thermal shock and potential cracking when molten material is poured into the capping plate.

Capping Plate Preparation

Capping plates should be lightly coated with mineral oil prior to No. 600 application.

Melting

Use a suitable melting pot for sulfur-base compounds equipped with automatic temperature controls. Empty quantity of No. 600 into melting pot and regulate temperature between 265°F and 290°F. Melt material in this temperature range to a smooth, free-flowing liquid.

If heated above 300°F, the material thickens. To reduce viscosity and lower the temperature to optimum range, remove the heating element and/or add more No. 600/610 material. Overheated material is still usable after temperature has decreased to 265°F-290°F, provided temperature has not exceeded 300°F.

Installation

Pour the molten No. 600 into the capping plate with a ladle. Place the concrete cylinder immediately into the sulfur cement and allow to remain until the compound solidifies (approximately one minute). After the compound has solidified, remove the capped cylinder from the mold.

COVERAGE

Estimating Table - material quantities per square foot

Common floor and tank brick quarry tile sizes

Length (in)	8	8	8	8	8	8	8	8	9	9	9	9
Width (in)	3 ⁷ / ₈	3 ⁷ / ₈	4	4	3 ³ / ₄	2 ¹ / ₄	4 ¹ / ₂	3 ³ / ₄	4 ¹ / ₂	4 ¹ / ₂	2 ¹ / ₂	3
Thickness (in)	1 ³ / ₁₆	1 ³ / ₈	1 ³ / ₈	1 ¹ / ₂	2 ¹ / ₄	3 ³ / ₄	3 ³ / ₄	4 ¹ / ₂	2 ¹ / ₂	3	4 ¹ / ₂	4 ¹ / ₂
No. of Brick with												
1/4-in joints	4.23	4.23	4.11	4.11	4.36	6.98	3.67	4.36	3.28	3.28	5.66	4.79
Lbs Mortar per ft² for												
1/4" side joints												
No. 600	1.20	1.39	1.37	1.50	2.27	5.29	3.39	4.55	2.18	2.62	5.78	5.10
No. 610	1.14	1.32	1.30	1.41	2.15	5.01	3.21	4.31	2.07	2.48	5.47	4.83
Lbs Mortar per ft² for												
1/4" setting bed or back joint												
No. 600								2.84				
No. 610								2.58				

The above quantity requirements are based upon physical dimensions of chemical-resistant masonry units and actual weight of mortar as determined by ASTM C905. Actual usage rate will vary dependent upon scope of installation, experience of workmen, field conditions and other contingencies. Personnel using the above chart should, therefore, add an appropriate wastage factor.

SETTING/CURING

Nos. 600 & 610 will harden upon cooling. Allow minimum of two hours after hardening before placing into service or crushing capped specimens.

PACKAGING

No. 600 & 610 flake form is packaged in 50 lb. bags on plastic-wrapped pallets and the ingot/briquettes come ten (10) 5-lb. pieces per case.

No. 620 Wood Spacers are 500 pieces/lb.

CLEAN-UP

Unused material left in the melting kettle can be removed by chipping after it has cooled.

SHELF LIFE

Sauereisen Nos. 600 & 610 have a shelf life of one year when stored in unopened, tightly sealed containers in a dry location at 70°F. If there is a doubt as to the quality of the materials, consult a Sauereisen representative.

CAUTION

Consult Material Safety Data Sheets and container label Caution Statements for hazards in handling these materials.

WARRANTY

We warrant that our goods will conform to the description contained in the order, and that we have good title to all goods sold. WE GIVE NO WARRANTY, WHETHER OF MERCHANTABILITY, FITNESS FOR PURPOSE OR OTHERWISE, EXPRESS OR IMPLIED, OTHER THAN AS EXPRESSLY SET FORTH HEREIN. We are glad to offer suggestions or to refer you to customers using Sauereisen cements and compounds for a similar application. Users shall determine the suitability of the product for intended application before using, and users assume all risk and liability whatsoever in connection therewith regardless of any suggestions as to application or construction. In no event shall we be liable hereunder or otherwise for incidental or consequential damages. Our liability and your exclusive remedy hereunder or otherwise, in law or in equity, shall be expressly limited to our replacement of nonconforming goods at our factory or, at our sole option, to repayment of the purchase price of nonconforming goods.

- Distributors and agents in major cities throughout the world. Consult manufacturer for locations.
- Information concerning government safety regulations available upon request.
- Sauereisen also produces inorganic compounds for assembling, sealing, electrically insulating and grouting.

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