



SEMPLETE

The STEBBINS Engineering and Manufacturing Company
Watertown, NY USA
<http://www.StebbinsEng.com>

PRODUCT INFORMATION

DESCRIPTION

SEMPLETE are corrosion resistant masonry manufactured from selected clays and fired to a high degree of vitrification. This assures an exceptionally dense, low absorption liner plate that meets ASTM C-279 Type II or Type III specifications. All SEMPLATE are manufactured under an ISO Quality System.

SEMPLETE have a long history of performance in strong oxidizing Acid Bleach Towers in the Pulp and Paper Industry. They are the material of choice for lining ClO₂ Bleach Towers, ClO₂ Generating Tanks and Waste Acid Tanks.

SEMPLETE are being used successfully in many types of applications where resistance to liquid and gaseous acid media is required, including Flue Gas Desulphurization vessels and a variety of metal/mineral refining applications.

SEMPLETE exhibit very low water absorption and stringent dimensional tolerances.

TYPICAL PHYSICAL PROPERTIES

Composition	Fireclay Chemical Resistant Glazed Tile
Cold Water Absorption	2.5%, maximum
Density	147 lb./ft ³ (2355 kg/m ³), average
Cold Crushing Strength	15,000 PSI (103.42 MPa), average
Modulus of Rupture	2,200 PSI (15.17 MPa)
Modulus of Elasticity	3.0 – 3.5 x 10 ⁶ PSI (2.1 x 10 ⁴ MPa – 2.4 x 10 ⁴ MPa)
Thermal Conductivity	8.0 – 9.0 BTU x in. / sq. ft. x hr. x °F (1.15 – 1.30 W/m °C)
Coefficient of Thermal Expansion	3.0 x 10 ⁻⁶ in. / in. / °F (5.4 x 10 ⁻⁶ mm/mm/°C)

The above data is representative of a typical SEMPLATE and should not be used as a specification.

Chemical analysis (approximate):

COMPONENT	PERCENTAGE
Silicon Dioxide	50 - 80
Aluminum Oxide	20 - 50
Iron Oxide	<3
Calcium Oxide	<1
Magnesium Oxide	<1
Sodium Oxide	<1
Potassium Oxide	<3
Titanium Dioxide	<3
Phosphorous Pentoxide	<1
Sulfur	<1
Loss on Ignition	<1

The above chemical analysis is based on random sampling. Results will vary due to variations found in naturally occurring raw materials. These results cannot be taken as requirements for specification purposes.

STEBBINS	SEMPLETE
The STEBBINS Engineering and Manufacturing Company Watertown, NY USA http://www.StebbinsEng.com	PRODUCT INFORMATION

APPLICATION

SEMPLETE is a chemical-resistant liner plate designed for use in linings in a number of chemical process conditions. It is intended for use with STEBBINS chemical-resistant mortars.

STORAGE

The SEMPLATE should be dry before use, so optimal storage is a dry, clean area.

SAFETY PRECAUTIONS/DISCLAIMER

Mixes and applications of this product present a number of hazards. The purchaser and user must read and follow the hazard information, precautions and first aid directions on the individual product labels and safety data sheets before using.

All data contained in this Product Information sheet are averaged results of ASTM tests on laboratory prepared samples. Reasonable variations can be expected. The data should not be used for specification purposes.

While all statements, technical information, and recommendations contained herein are based on information our company believes to be reliable, **nothing contained herein shall constitute any warranty, express or implied, including any implied warranty of fitness for a particular purpose or any implied warranty of merchantability with respect to the products described herein and any such warranties are expressly disclaimed.**

We recommend that the purchaser or user independently determine the suitability of any of our products for their intended use. No statement, information or recommendation with respect to any of our products, whether contained herein or otherwise communicated, shall be legally binding unless expressly set forth in an executed written agreement.

End of PI-50