Atlas Minerals & Chemicals, Inc.

DATA SHEET

DOUBLE PLASTICIZED SULFUR CEMENT

DESCRIPTION

The jointing compound must contain at least 55% sulfur completely soluble in carbon disulfide. It must contain not more than 43% of a properly selected aggregate. The aggregate must be at least 90% silica and have a particle size so distributed as to give optimum physical properties. No clay, shale, brick dust or similar fillers shall be used. The product shall contain polysulfide rubber plasticizer.
This cement must meet ASTM C287 for chemical resistant mortars and must show weight change of less than 1% when 1" cylinders are exposed to the following corrosive materials for 30 days at 150°F (66°C):

- 10% Chromic Acid
- 60% Acetic Acid
- 25% Sulfuric Acid
- 25% Hydrochloric Acid
- 10% Nitric Acid

The compound must act as an electrical insulator and show no passage of current when electrodes are placed apart a distance of 1/2" on the surface under a potential of 45 volts.

PREPARATION OF THE DOUBLE PLASTICIZED SULFUR CEMENT

1. Break up ingots and place in a thermostatically controlled electrical melting pot. Melt the DOUBLE PLASTICIZED SULFUR CEMENT and stir occasionally or maintain stirring until all is melted. The recommended pouring temperature range is from 275°F (135°C) to 295°F (146°C).
   Note: DOUBLE PLASTICIZED SULFUR CEMENT will start to melt at lower temperatures.
2. DO NOT heat above suggested pouring temperature. Ignition of the DOUBLE PLASTICIZED SULFUR CEMENT could occur at temperatures above 320°F (160°C). If ignition occurs, turn off unit and cover the melting pot. Also, at temperatures above recommended pouring temperature DOUBLE PLASTICIZED SULFUR CEMENT will increase in viscosity and will loose physical properties. Burning or over heating will render DOUBLE PLASTICIZED SULFUR CEMENT useless.

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUE
Density	ASTM C905	137 lb./cu. ft. (2.19 g./cc.)
Tensile Strength, 48 hours @ 77°F (25°C)	ASTM C307	400 psi., min. (2.76 MPa)
Compressive Strength, 48 hours @ 77°F (25°C)	ASTM C579	4,000 psi., min. (27.6 MPa)
Flexural Strength, 48 hours @ 77°F (25°C)	ASTM C580	1,000 psi., min. (6.89 MPa)
Coefficient of Thermal Exp., in./in./°F (cm./cm./°C)	ASTM C531	3.3×10^{-5}, max. (5.9×10^{-5})
Strength Retained after Thermal Shock (minimum)	ASTM C287	150 psi., min. (1.03 MPa)
Tend. of Aggregate to Settle, Max. Variation from Unity	ASTM C287	0.15

3. If the molten DOUBLE PLASTICIZED SULFUR CEMENT foams due to entrapped air or moisture, continue heating and stirring until smooth again, making certain not to exceed recommended pouring temperatures.

PRODUCT SPECIFICATION

The system shall be DOUBLE PLASTICIZED SULFUR CEMENT as manufactured by Atlas Minerals & Chemicals, Inc.

NOTE: **ATLAS makes it a practice to continuously update and enchance our CCM (Corrosion Resistant Construction Materials) products. For the most recent version of any Data Sheet, please visit our Web site at www.atlasmin.com.**

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