

Babcock & Wilcox
Holmes Insulations Limited

Mineral Wool Fiber Products

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B&W MINERAL WOOL

NO. 1 INSULATING CEMENT

AVERAGE PROPERTIES

GENERAL

No. 1 Insulating Cement is a plastic insulation produced from a high temperature-resisting, granulated mineral wool and inorganic binder. It is effective up to 1700°F and reclaimable where temperatures have not exceeded 200°F.

As a plastic insulation, No. 1 Insulating Cement is easily applied over large or small irregular surfaces not suited to molded, rigid insulation. Its reclaimability feature, ease of application and the fact that it can be stocked without breakage or loss, make it ideal for new construction or maintenance work. No. 1 Insulating Cement is an ideal material for insulating pumps, turbines, valves, fittings, etc..

When mixed with water to a trowelable consistency, the mineral wool granules retain their physical properties, and the dead air cells confined in these granules provide maximum insulating efficiency and light weight.

The high adhesion of No. 1 Insulating Cement makes it easy to apply over brick or metal surfaces. It does not "roll up" behind the trowel or "slide off" the surface. Simply add water according to directions, mix to a trowelable consistency and the cement forms a plastic mass that is ready for application on hot or cold surfaces. The finished job is a monolithic insulating coating without joints or cracks.

No. 1 Insulating Cement contains a rust inhibitor which will not corrode clean metal surfaces regardless of whether the cement dried out immediately on a hot surface, or air dries.

No. 1 Insulating Cement is a remarkably economical material. It has a proven wet coverage of approximately 50 sq.ft., 1 inch thick, per 100 lbs. Its dry coverage is approximately 45 sq.ft.

Data are average results of tests conducted under standard procedures and are subject to variation. Results should not be used for specification purposes.

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MIXING

Cement should be mixed in the water slowly to insure a homogeneous mixture which will result in the maximum adhesion to the surface being coated. Abnormally hard or mineralized water should be avoided.

For maintenance work or repair jobs, a bag of No. 1 Insulating Cement can be mixed with water and applied without delay. Excess cement can be reused even after several days in the mix bucket.

PHYSICAL PROPERTIES

Recommended Use Limit, °F	1700
Dry Density, lbs./cu.ft.	30
Wet Coverage, sq.ft. @ 1" thick per 100 lbs.	47 to 50
Compressive strength, psi @ 5% deformation	14
Dry adhesion to steel, psi	12
Linear shrinkage, % maximum @ 1700°F	2
Recommended water:cement ratio, gal/50 lb. bag	10.5
Thermal conductivity, BTU, In/Hr.Ft ² °F Mean Temperature	
@ 100°F	0.49
@ 500°F	0.74
@ 800°F	1.06

SPECIFICATION COMPLIANCE

ASTM C 195-64
Federal SS-C-160 Type III, Grade U
Military MIL-I-24244 (ships)¹

¹Indicate on order when specification compliance is required.

PACKAGING

No. 1 Insulating Cement is packed in convenient multiwall, non-returnable paper bags, net weight 50 lbs.

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BIBLIOGRAPHY

- (1) C. W. Hardy and B. Titterington, "Refractories for Continuous Reheating Furnaces", Trans. Brit. Cer. Soc., 72, 1, 1973.
- (2) C. G. Henson, "Fuels and Fuel Economy", Metallurgia and Metal Forming, July 1973.
- (3) C. W. Dunlop, "Calculating Heat Loss Through Furnace Walls of Various Materials", Plibrico Sales Publication 1959.
- (4) "Guide to Lining Furnaces With Ceramic Fiber", Industrial Heating, May 1975, p 58.
- (5) H. A. Nelson, "Rapid Dry-Out and Heatup Method for Various Refractory Linings", Industrial Heating, August 1975, p 62.