

# PRO-TEC-T-KOTE THERMAL-MW-KOTE CEMENTS

## TECHNICAL DATA SHEET

High Temperature Mineral Wool Thermal Cement  
MW, SC20 and Super MW

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**DESCRIPTION:** Thermal-MW-Kote High Temperature Cement is an effective refractory insulating type **asbestos free** high temperature mineral wool base product. It is easily applied and has excellent adhesion and troweling characteristics. MW cement dries to a white surface with very low shrinkage. Each batch is tested to insure quality.

Thermal MW Kote is excellent for general refractory and insulation work or as a maintenance, patching and leveling cement. MW is rust inhibited. MW cement may be finish coated with Thermal 1-Kote cements for a smooth, durable white finish. MW cement is an excellent product to repair and seal existing insulation. N.P.I. recommends this product to repair and seal over existing insulation and refractory installations that contain asbestos.

**APPLICATION:** Remove all rust, dirt, grease or paint from application surfaces. Apply cement in layers of 1/2" thick. For thicknesses greater than 1/2", reinforce the cement with galvanized hex netting, metal lath, etc. Proper barrier must be used on aluminum surfaces before application of cement.

**TEMPERATURE RANGE:** 1900° F. maximum **hot** surface application. (must "hot spot" cement if surface is too hot to over all apply.)

**SPECIFICATION:** Conforms to ASTM C-195-77 standard and Military SPEC MIL-C-2861D and SS-C-160 type 111, Grade U as amended. (See over for details of ASTM SPEC)

**CORROSION RESISTANCE:** Non-corrosive to ferrous metals. Meets acceptable analysis for MIL-I-24244B, Regulatory Guide N.R.C. 1.36 and ASTM C-795-77. Cost add on for testing.

**MIXING:** Mix with water ratio weight 1 1/2 to 1 MW to troweling consistency. Let mix gel at least 15 minutes before using. MW may require the addition of water to maintain workable consistency if setting takes place after initial mixing. MW is a hydrous air setting product.

**AVAILABILITY:** Thermal-MW-Kote is available in 13 and 15 minimum board feet (dry coverage yield) per bag, bags. Packaged in multi wall poly lined bags, palletized and plastic wrapped.

**WARNING:** DUST PARTICLES OF THESE CEMENTS IN DRY FORM MAY BE HARMFUL TO YOUR HEALTH. WE RECOMMEND THE USE OF DUST RESPIRATORS.

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For further information contact Pro-Tec-T-Kotes, Thermal Kote Cements,  
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## Standard Specification for MINERAL FIBER THERMAL INSULATING CEMENT<sup>1</sup>

This Standard is issued under the fixed designation C 195; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval.

### Scope

1.1 This specification covers mineral fiber thermal insulating materials in the form of dry cement, which, when mixed with a suitable proportion of water, applied as a plastic mass, and dried in place, affords resistance to heat transmission on surfaces operating at temperatures between 100 and 1600°F (about 38 and 871°C).

NOTE 1—The values stated in U.S. customary units are to be regarded as the standard.

### Materials and Manufacture

4.1 Mineral fiber thermal insulating cement shall be composed of mineral fiber, with a suitable proportion of heat-resistant binder.

4.2 The mineral fiber shall consist of rock, slag, or glass processed from a molten state into fibrous form.

### 6. Sampling

6.1 The cement shall be sampled for the purpose of tests in accordance with Method C 163.

### 7. Test Methods

7.1 Determine the properties enumerated in this specification in accordance with the following test methods:

7.1.1 *Water-Cement Ratio for Proper Troweling Consistency*—For each lot of cement to be tested, determine the ratio by weight of water to be mixed with cement to obtain satisfactory troweling consistency. For tests to determine compliance with this specification the water-cement ratio shall be that which gives the measured consistency of 20 to 30 % by Method A when determined in accordance with Methods C 405.

### Packaging

7.1 Unless otherwise agreed or specified between the purchaser and the manufacturer or supplier, mineral fiber thermal insulating cement shall be packaged in the manufacturer's standard commercial containers.

### Physical Requirements

5.1 The cement shall conform to the physical requirements given in Table 1. Conformance shall be based on average results of tests on specimens first mixed with water according to the ratio for proper troweling consistency, determined in accordance with Section 7.

TABLE 1 Physical Requirements

	U.S. Custom- ary Units	SI Units
Dry covering capacity, min, ft <sup>2</sup> , 1 in. in thickness per 100 lb of dry cement (m <sup>2</sup> , 1 cm in thickness per 100 kg of dry cement)	30	15.3
Volume change (shrinkage) upon drying, max, %	35	35
Compressive strength at 5 % deformation, min, psi (kPa)	10	69
Dry adhesion to steel, min, psi (kPa)	4	27.6
Linear shrinkage (length) after heat soaking at 1600°F (871°C) max, %	5	5
Thermal conductivity, max, Btu · in./h · ft <sup>2</sup> · °F (W/m · K):		
At mean temperature of 200°F (95°C)	0.85	0.122
At mean temperature of 500°F (260°C)	1.0	0.144
At mean temperature of 700°F (370°C)	1.1	0.159

The above are important excerpts of C-195-77 updated to 1982.