Avikote AV 650

Petrochemical Grade Cementitious Fireproofing

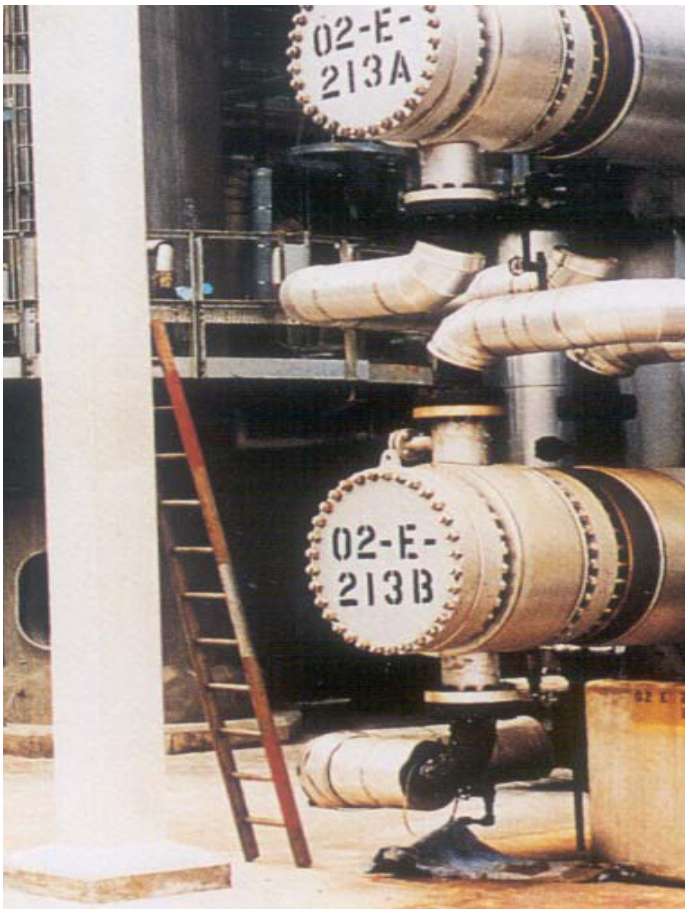
Product Information

Avikote AV 650 Petrochemical Grade Cementitious Fireproofing has been developed by Arabian Vermiculite Industries to meet specialty petrochemical fireproofing requirements, conforms to UL 1709 with corrosion inhibitors for the protection of the steel and metal lath.

Avikote AV 650 is a Portland cement-based spray and/or trowel applied product. Only the addition of water at the job site is required for application.

Avikote AV 650 may be used in petrochemical, chemical processing, gas processing, refinery facilities and specialty utility applications.

Avikote AV 650 is supported by a specialized staff of fire protection representatives trained in fireproofing requirements. They are dedicated to fire protection only.



Features and Benefits

Fire Tested: Tested in accordance with Underwriters Laboratories, Inc. UL 1709 and ASTM E 119 (UL 263); investigated by UL for exterior use, and BS 476 (Part 20)

Durability: Avikote AV 650 has been tested for Bond Strength, Hardness, and other properties in accordance with API Guidelines (Publication 2218) and ASTM test procedures.

Equipment Versatility: Avikote AV 650 may be applied by a wide range of pumping equipment – Moyno, Rotor Stator, Piston or Hydraulic. Also, Avikote AV 650 may be used with paddle mixers and some continuous mixers.

Economical: Avikote AV 650 can build to higher thicknesses per pass and allows for greater applicator efficiency. This reduces time on the jobsite and the labor required in application compared to other products.

PERFORMANCE CHARACTERISTICS		
Product Property	**Values**	**Test Methods/ Notes**
Dry Density	640 kg/m^3 (40 pcf)	ASTM E 605
Bond Strength	478 kN/m^2 (10000 psf)	ASTM E 736
Compressive Strength	3780 kN/m^2 (550 psi)	ASTM E 761
Hardness (Shore D)	40	ASTM D 2240
Air Erosion	.000 g/m^2 (.000 g/ft^2)	ASTM E 859
Yield	Each mm thickness requires 0.603kg	Theoretical Maximum
Packaging	22.27 kg/bag (49 lbs/bag)	Polyethylene Lined Kraft Bag
Color	Grey	Other colors upon request

Conditions Not Recommended

Operating temperatures in excess of 93°C (200°F)

Use on aluminum or other non-steel surfaces

Use as a refractory cement

Coatings Requirement

Steel Coatings

Avikote AV 800 neither prevents nor promotes the corrosion environments, a corrosion inhibitive, non-alkali sensitive coating should be applied to the steel prior to application of fireproofing.

Contact an Arabian Vermiculite Industries representative for a list of recommended coatings.

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Fireproofing Sealer: The use of a latex based overcoat will enhance the surface characteristics of Avikote AV 650. Please contact AVI for a list of recommended surface sealers.

Delivery and Storage

All material to be used for fireproofing shall be delivered in original unopened packages bearing the name of the manufacturer, the brand and proper Underwriters Laboratories, Inc. labels for fire hazard and fire resistance classifications.

The material shall be kept dry until ready for use. Packages of material shall be kept off the ground, under cover and away from sweating walls and other damp surfaces. All material that has been exposed to water before use shall be discarded. Stock of material is to be rotated and used before its expiration.



Steel Surfaces

Prior to the application of Avikote AV 650 fireproofing, an inspection shall be made to determine that all steel surfaces are acceptable to receive fireproofing. Where necessary, the cleaning of steel surfaces to receive fireproofing shall be the responsibility of the general contractor.

Mixing

Avikote AV 650 fireproofing shall be mixed by machine in a conventional, plaster type mixer, continuous mixer, or hand held mixer, specifically modified for cementitious fireproofing. The mixer shall be kept clean and free of all previously mixed material. The mixer speed shall be adjusted to the lowest speed which gives adequate blending of the material and a mixer density of 830 kg/m^3-940 kg/m^3 (52-59 pcf).

Using a suitable metering device and mixer, approximately 15 litres (4 US gals) per bag shall be first added to the mixer as the blades turn. Mixing shall continue until the mix is lump-free with a creamy texture. All material is to be thoroughly wet. Target density of 830 kg/m^3-940 kg/m^3 (52-59 pcf) is not desirable. Over mixing Avikote AV 650 will reduce pumping rate and density.

Application

Avikote AV 650 fireproofing material shall not be used if it contains partially set, frozen or caked material.

Avikote AV 650 shall have a minimum average dry, in-place density of 660 kg/m^3 (41 pcf).

Avikote AV 650 is formulated to be mixed with water at the job site.

Avikote AV 650 is applied directly to the steel, at various rates of application which will be job dependent using standard plastering type equipment or continuous mixer/pump units. A spray gun with a properly sized orifice with spray shield, and air pressure at the nozzle of approximately 140 kN/m^2 (20 psi) will provide the correct hangability, density and appearance.

Avikote AV 650 may also be trowelled directly from the mixer. Please contact your local AVI representative for specific density recommendations should you desire to trowel from the mixer.



Temperature and Ventilation

An air substrate temperature of 4°C (38°F) minimum shall be maintained for 24 hours prior to application, during application and for a minimum of 24 hours after application of Avikote AV 650 since **Avikote AV 650** would freeze during mixing and on application.

Provisions shall be made for ventilation to properly dry the fireproofing after application. In enclosed areas lacking natural ventilation, air circulation and ventilation must be provided.

Safety

Avikote AV 650 is slippery when wet. The general contractor and applicator shall be responsible for posting appropriate SLIPPERY WHEN WET signs. Signs should be posted in all areas in contact with wet fireproofing material.

Anti-slip surfaces should be used on all working surfaces.

A Material Safety Data Sheet for Avikote AV 800 is available upon request.