



HUMBOLDT

VITROBOND® High-Strength Capping Compound— H-2959VH



VITROBOND® High-Strength Capping Compound is a mineral-filled, sulfur-based compound formulated for capping concrete test cylinders. It is easily melted, pours smoothly, possesses higher compressive strength and gives consistent test results. Sulfur-based capping compounds have been used for many years by

independent testing laboratories, pre-stressed concrete structures manufacturers and federal, state and local testing agencies. This compound is suitable for running compressive strength tests upon high-strength concrete.

Compound Offers the Following Advantages:

- Ready-to-use—just melt and pour. No mixing or possibility of low strength or erratic results from improper proportions.
- Does not require controlled room temperature or humidity conditions during pouring of caps.
- Does not require moist curing or other tedious handling procedures.
- Not affected by dry cylinders.
- Can be tested two hours after cooling.
- Virtually no settling in the melting pot, thus, results are uniform from cylinder to cylinder.

Physical Properties

Property	Test Method	Typical Value
Density	ASTM C905	136 lb/ft ³ (2.18 g/cc)
Tensile Strength 48 hrs @77°F (25°C)	ASTM C307	> 1,000 psi (6.89 MPa)
Compressive Strength 48 hrs @77°F (25°C)	ASTM C579	> 9,000 psi (62.1 MPa)
Compressive Strength 2 hrs @77°F (25°C)	ASTM 617	> 8,000 psi (55.2 MPa)
Color	—	Dark Gray

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Procedure For Use

Capping compound caps are applied to a concrete test cylinder per ASTM C617. It is suggested that at least two capping rigs be prepared to avoid loss of time in testing. The base plates of the capping rigs should be very lightly oiled or coated with silicone compound, such as a 1% solution of General Electric Fluid SPFE or equal in toluene to facilitate removal of the cap. When silicone release agents are used, the capping rig should be allowed to stand approximately 30 minutes after coating before pouring caps. If oil is used, extreme care should be taken to see that there is not an excess of oil which would affect the capping compound.

It is recommended that the base plate of the capping rig be preheated to retard the cooling rate of the capping compound.

For the most consistent test results, it is suggested that the caps be applied using a vertical capper. Pour the molten capping compound on the base plate of the rig and promptly place the cylinder into the molten compound to a depth so that a cap of approximately 1/8" thick will be obtained. It is essential to ascertain that each cylinder is properly aligned so that the caps will be parallel. The cylinder may be removed as soon as the capping compound has hardened, and the other end may then be capped. The specimen may be tested 2 hours after the final pouring, but not before. It is not necessary to carry out any moist curing before the tests are performed.

Capping Compound Preparation

1. Break up ingots and place in a thermostatically controlled electrical melting pot. Melt the compound, stirring occasionally with metal rod or ladle. Recommended pouring temperature range is from 275°F (135°C) to 295°F (146°C).
2. Do not heat above suggested pouring temperature. Ignition of the capping compound could occur at temperatures above 320°F (160°C). If ignition occurs, turn off unit, and cover the melting pot. Burning will render capping compound useless.
3. If molten capping compound foams due to entrapped air or moisture, continue heating and stirring until smooth again.

Packaging

- 50 lb. (22.7 kg.) carton containing 5 lb. (2.3 kg.) ingots

Storage and Shelf Life

- Store all materials in a cool, dry environment. Keep all materials out of direct sunlight. Ideal storage temperature is 75°F (24°C). In unopened original containers, the materials referred to in this Data Sheet have a shelf life of approximately one year.



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