

Unburnt Fine Fireproof Concrete Made of Industrial By-products

Unburnt Fireproof Concrete is a new technology for producing a refractory product that can be used as a lining for various high heat installations with temperatures up to 1800°C. The concrete aggregate is composed of fine quartzite particles, a by-product of the extraction and processing of quartzites. The size of the particles are graded to contain 36% of 3 to 8mm size, 50% of 0.09 to 3 mm size, and 14% of sizes below 0.09mm. The binder is a technical grade liquid glass produced by the interaction of silica fume and alkali. The hardener is a ferrochrome slag which is a by-product of electrical steel making. The product replaces other lining materials such as quartzite blocks and fireclay. The product was tested in steel soaking pits, in blast furnace spouts, and other similar applications.

Contact: Professor Stanislav I. Pavlenko
Organization: Siberian State University of Industry
Address: 42 Kirov Street
City: Novokuznetsk
State/Province:
Postal Code: 654007
Country: Russia
Phone No: 7-3843-463456
FAX: 7-3843-466880
URL:
Email: step@sibgiu.kemerovo.su