

PRODUCT DATA SHEET

KING AF-D1 RF

Accelerated shotcrete or concrete mix.

PRODUCT DESCRIPTION

KING AF-D1 RF is an accelerated shotcrete or concrete mix containing special, high-alumina cement and silica fume. It is designed to produce superior heat and thermal-cycling resistant characteristics.

USES

- Furnace linings
- Chimney linings
- Furnace foundations
- Ore-pass linings
- Other high temperature and thermal-cycling areas

CHARACTERISTICS / ADVANTAGES

Resistance to high temperature and thermal-cycling

The high performance cement used in this mix provides improved resistance to thermal shock and thermal cycling for areas with exposure to extremely high temperatures.

Abrasion resistance

The properties provided by the special high performance cement used in KING AF-D1 RF provides abrasion resistance two times higher than similar mixes using normal Portland cement.

Early strength development

KING AF-D1 RF reaches initial set after 2-3 hours. However, after this period of time strength gain develops rapidly providing 24 hour compressive strength results similar to 28 day results of mixes using normal Portland cement.

PRODUCT INFORMATION

Packaging	This mix is normally packaged in 66 lb (30 kg) triple-lined bags, 2200 lb (1000 kg) bulk bags or 3300 lb (1500 kg) bulk bags, polywrapped on wooden pallets. Special packaging for Marine shipping is available upon request.		
Shelf Life	Unopened bags have a shelf life of 12 months.		
Storage Conditions	Material should be stored in a dry, covered area, protected from the elements.		
Compressive Strength	1 Day	5800 psi (40 MPa)	ASTM C 1604 & ASTM C 42
	3 Days	6525 psi (45 MPa)	
	7 Days	7000 psi (48 MPa)	
	28 Days	8400 psi (58 MPa)	
Thermal Resistance	Withstands temperatures up to 1832 °F (1000°C).		

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

The performance of this mix relies heavily on the abilities of the nozzleman. Personnel should be trained in proper shotcreting techniques. It contains accelerators and silica fume. Caution against fall-outs should however be exercised when shooting thick passes (greater than 3 inches or 10 cm).

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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