

Vibrotek 54C



Description

A 1500°C medium alumina, medium cement castable for placement by vibrocasting.

Applications

- Door jambs
- Lintels and piers
- Cartops
- Rotary hearth curbs
- Walking beam furnace and pusher furnace applications

Features and Benefits

General low cement applications where medium strength and good thermal shock resistance is required.

Installation Method

Casting.

Data Sheet

Prepared using EN BSI and ISO standard Methods.

Storage

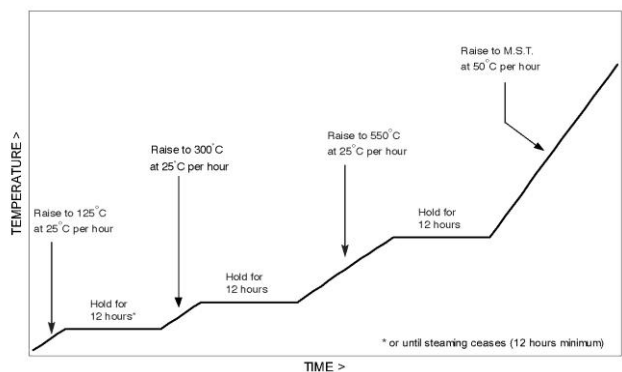
Store bagged monolithics in a dry place, off the ground and, when possible, with the original shrink wrapping intact.

Precautions

This must be installed under closely controlled conditions using mechanical mixers and vibration. The resultant concrete has a dense, low permeability structure and care must be exercised during initial heating. At top water material can be placed at minimum or no vibration.

Instructions for Use

Highest strength is obtained with castable refractory by using the least amount of clean mixing water that will allow thorough working of material into place by vibrating. A mechanical mixer is required for proper placement (paddle type mortar mixers are best suited). After adding the recommended water mix for at least 4 minutes, place the material within 20 minutes after mixing. For maximum strength cure 24 hours in a damp condition before initial heat-up. New castable installation must be heated slowly the first time.



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Typical Data

Characteristics

Bond Type	Hydraulic	
Raw Material Base	Chamotte/Bauxite	
Maximum Grain size (mm)	6	
Maximum Service Temperature	°C	1500
Bulk Density Dried to 110°C	kg/m ³	2250
Net Material Required	kg/m ³	2200

Physical Properties

Test Temperature (°C)	Cold Crushing Strength (N/mm ²)	Permanent Linear Change (%)
110	50	
815	50	-0.3
1500	40	0.8

Thermal Conductivity

W/mK		
@ mean temp	200°C	
	400°C	
	600°C	1.5
	800°C	
	1000°C	
	1200°C	

Typical Chemical Analysis (%)

Al ₂ O ₃	50
SiO ₂	43
Fe ₂ O ₃	2
CaO	4.3

Modulus of Rupture (N/mm²)

110°C	N/A
815°C	N/A

Water Addition

% by weight	7.5-9.0
Volume per Bag (l)	1.875-2.25
Bag Weight (kg)	25

Abrasion Resistance ASTM C704 (cm³)

815°C	N/A
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Pallet Size

kg	1200
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The values given herein are typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Therefore the data contained herein should not be used for specification purposes. Check with your Thermal Ceramics office to obtain current information or a Compliance Data Sheet where guaranteed property specifications are required.

Before using these materials, it is strongly recommended that the installer consults Thermal Ceramics manual "storage and installation manual" copies of which are obtainable from Thermal Ceramics offices or distributors.