



DURACON[®] 28

VIBRATION CAST

General Information

DURACON 28 is a low iron fireclay-based low cement castable that exhibits excellent strengths, refractoriness, and resistance to carbon monoxide attack. This mix is designed to be cast with either internal or external vibration. Applications for this product include car tops, boilers, incinerators, furnace covers and applications where carbon monoxide disintegration is a concern. This product can also be used as a general purpose, high-strength dense 45 - 50% alumina castable.

Chemical Analysis

SiO ₂	48.7%	Maximum Use Temperature	1540°C (2800°F)
Al ₂ O ₃	45.3%	Material Required Vibration Cast	2.31 g/cm ³ (144 lb/ft ³)
TiO ₂	2.1%	Grain Size	13 mm (1/2") and finer
CaO	1.5%	Installation Methods	Vibration Cast
Alkalies	1.2%	Std Palletizing	107cm X 107cm (42" X 42") pallets - 64 bags per pallet (1474 kg (3520 lb))
Fe ₂ O ₃	0.8%	Note:	Bulk bags available upon request
MgO	0.3%		
Other	0.1%		

VIBRATION CAST DATA

Temperature		Density		PLC*	MOR		CCS		HMOR		Porosity	K-factor**		Abrasion Resistance
°C	°F	g/cm ³	lb/ft ³	%	MPa	psi	MPa	psi	MPa	psi	%	W·m ⁻¹ ·K ⁻¹	BTU·in ft ² ·hr ⁻¹ ·F	cm ³
110	230	2.29	143	-	12.9	1875	64.1	9300	-	-	9	-	-	-
815	1500	2.31	144	-0.10	16.4	2375	61.3	8900	9.3	1350	13	1.80	12.5	-
1100	2000	2.27	142	-0.40	11.5	1675	61.3	8900	-	-	12	1.96	13.6	-
1400	2550	2.15	134	1.40	12.7	1850	51.7	7500	-	-	11	1.73	12.0	-

*Permanent linear change after firing

**Estimated

SET TIMES AND WATER REQUIREMENTS

	External Vibration	Internal Vibration
Water Required	5 - 6.5%	5.25 - 7.0%
Working Time	1 - 2 hr	1 - 2 hr
Initial Set	1 - 4 hr	1 - 4 hr
Final Set	3 - 8 hr	3 - 8 hr

Allied Mineral Products, Inc. supplies a complete line of monolithic refractories for industrial applications. For more information or a complete evaluation of your refractory requirements, please contact your local Allied representative.

Warning: Contains aluminum oxide, aluminosilicate, cement, and silica. The International Agency for Research on Cancer (IARC) has classified crystalline silica inhaled in the form of quartz or cristobalite carcinogenic to humans. Refer to Material Safety Data Sheet for additional information and disposal instructions. Avoid breathing dust. Wear NIOSH approved respirator during installation, removal, and disposal of product to prevent inhalation of dust. Avoid contact with skin and eyes. Cement powder or freshly mixed castable may cause eye and skin irritation. Steam spalling, which can lead to personal injury, may result from improper drying and firing procedures. In case of eye contact, flush immediately and repeatedly with water and consult a physician. For safest use and optimum performance, proper practices must be followed.

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