



DURACON[®] 30

VIBRATION CAST

General Information

DURACON 30[®] is an aluminosilicate-based, low cement, vibration cast mix that exhibits excellent strengths, low porosity and resistance to damage from thermal cycling. This mix is designed specifically for vibration cast installation. Applications for this product include car tops, wood burning boiler walls, safety linings, lead trough linings and other applications requiring good alkali resistance.

Chemical Analysis

Al ₂ O ₃	47.2%	Maximum Use Temperature	1650°C (3000°F)
SiO ₂	46.3%	Material Required Vibration Cast	2.33 g/cm ³ (146 lb/ft ³)
TiO ₂	2.0%	Grain Size	12.5 mm (1/2" mesh) and finer
CaO	1.2%	Installation Methods	Vibration Cast
Fe ₂ O ₃	1.1%	Standard Packaging	25 kg (55 lb) multi-wall paper bags
Alkalies	0.8%		
MgO	0.2%		

VIBRATION CAST DATA

Temperature		Density		Linear Expansion	MOR		CCS		HMOR		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 °F	cm ³
110	230	2.37	148	-	14.6	2120	70.5	10230	-	-	1.86	12.9	-
815	1500	2.33	146	0.0	13.5	1960	68.8	9985	12.2	1780	1.83	12.7	-
1090	2000	2.33	146	-0.3	16.0	2320	75.9	11005	-	-	1.95	13.5	-
1400	2550	2.32	145	0.2	16.6	2410	80.0	11600	-	-	2.16	15.0	-
1600	2910	2.24	140	0.7	17.1	2480	29.0	14655	-	-	2.01	14.2	-

SET TIMES AND WATER REQUIREMENTS

	Vibration
Water Required	4.0-6.0%
Working Time	up to 1 hour
Initial Set	2 - 6 hours
Final Set	5 - 12 hours

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, aluminosilicates, 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. Hydrogen gas may be generated when product is exposed to water. Ignition of hydrogen gas in an enclosed area can lead to personal injury. Proper ventilation should be supplied to avoid gas buildup. For safest use and optimum performance, proper practices must be followed.

(DCON30)
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