



ARMORMAX[®] 70 AC

VIBRATION CAST

General Information

ARMORMAX[®] 70 AC is an alumina, mullite-based, low-cement, castable refractory with a high percentage of stainless steel fiber content to improve overall fracture toughness and thermal shock resistance. The enhanced flow of the refractory base mix allows this product to be mixed in most field mixers and cast in situations. It is particularly suitable for applications where high mechanical abuse and thermal cycling are encountered.

Chemical Analysis*

Al ₂ O ₃	68.3%
SiO ₂	27.0%
CaO	2.2%
TiO ₂	1.2%
Fe ₂ O ₃	0.6%
Other	0.4%
Alkalies	0.3%

Maximum Use Temperature	1430°C (2600°F)
Material Required Vibration Cast	2.72 g/cm ³ (170 lb/ft ³)
Grain Size	2.4 mm (8 mesh) and finer
Installation Method	Vibration Cast
Standard Packaging	25 kg (55 lb) multi-wall paper bags

* Metal fiber content and proprietary ingredients not included in chemistry.

VIBRATION CAST DATA

Temperature		Density		PLC [†]	MOR		CCS	
°C	°F	g/cm ³	lb/ft ³	%	MPa	psi	MPa	psi
110	230	2.72	170	-	24.6	3570	87.0	12620
815	1500	2.74	171	-0.2	29.2	4230	132.7	19250
1093	2000	2.77	173	0.0	26.1	3780	129.5	18780
1400	2550	2.82	176	-0.8	25.6	3720	110.5	16020

† Permanent Linear Change After Firing

SET TIMES AND WATER REQUIREMENTS

	Vibration Cast
Water Required	4.5 - 6.5%
Working Time	1 - 2 hrs
Initial Set	2 - 6 hrs
Final Set	5 - 12 hrs

THERMAL SHOCK DATA

	2200°F Prefired and Shock Temperature (5 Cycles)
Unshocked CMOR, psi	4169
Shocked CMOR, psi	3580
Strength retained, %	86

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. For safest use and optimum performance, proper practices must be followed.

(ARNMAX70AC)

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