

PRODUCT BULLETIN

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**ALLIED
MINERAL**
PRODUCTS, INC.

MATRIPUMP 608 AL

General Information

MATRIPUMP 608 AL is a mullite based low cement silicon carbide containing refractory castable. MATRIPUMP 608 AL is designed for areas in molten aluminum processing, which are subject to high abrasion and thermal shock. This product offers the following benefits and features:

- >Superior aluminum non-wetting characteristics
- >Tolerates a wide water range without sacrificing physical properties
- >Excellent abrasion resistance

Technical Data

Chemical Analysis*

Al ₂ O ₃	60.7%
SiO ₂	27.3%
SiC	7.4%
CaO	1.5%
TiO ₂	1.7%
Fe ₂ O ₃	0.8%

*Proprietary ingredients not included.

Material Required, Vibration	2.64 g/cm ³ (165 lb/ft ³)
Material Required, Poured	2.51 g/cm ³ (157 lb/ft ³)
Grain Size	5 mm (4 mesh) and finer
Maximum Application Temperature	1430°C (2600°F)
Installation Method	Vibration/Poured

Vibration Cast Data

Temperature		Density		PLC [†]	MOR		HMOR		CCS		Porosity	Abrasion Loss
°C	°F	g/cm ³	lb/ft ³	%	MPa	psi	MPa	psi	MPa	psi	%	cm ³
110	230	2.64	165	-	12.2	1770	-	-	96.5	14000	6.2	5.6
816	1500	2.58	161	-0.2	33.0	4790	35.9	5200	117.2	17000	13.3	4.1
1090	2000	2.55	159	-0.1	25.9	3760	-	-	157.2	22800	13.1	-
1370	2500	2.51	157	0.3	29.8	4320	-	-	142.0	20600	14.1	-

†Permanent Linear Change

Poured Data

Temperature		Density		PLC [†]	MOR		HMOR		CCS		Porosity	Abrasion Loss
°C	°F	g/cm ³	lb/ft ³	%	MPa	psi	MPa	psi	MPa	psi	%	cm ³
110	230	2.59	162	-	8.1	1180	-	-	71.0	10300	10.8	6.0
816	1500	2.51	157	-0.2	24.3	3520	30.3	4400	102.7	14900	15.6	5.4
1090	2000	2.51	157	-0.1	23.1	3350	-	-	142.7	20700	15.4	-
1370	2500	2.50	156	0.3	27.4	3970	-	-	123.4	17900	14.6	-

†Permanent Linear Change

Packaged in 25 kg (55 lb) multi-wall paper bags, protected with stretch wrap. Also available in bulk packaging. Storage beyond 6 months is not recommended. Store in a dry location to avoid moisture pickup.

Hydraulic Set and Water Requirements

	Vibration	Poured
Water Required:	5.0%	5.7%
Working Time:	40 minutes	>60 minutes
Initial Set:	1.5-4 hours	2-6 hours
Final Set:	3-10 hours	3-10 hours

Allied Mineral Products, Inc. supplies a complete line of monolithic refractories for the metals industry. 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. Wear NIOSH approved respirator during installation, removal, and disposal of product to prevent inhalation of dust. Wear long-sleeved, loose-fitting clothing when handling the material. Gloves and eye protection should be worn. Wash with soap and warm water after handling. Wash work clothes separately and rinse out washer. In case of eye contact, flush immediately and repeatedly with water and consult a physician. Steam spalling, which can lead to personal injury, may result from improper drying and firing procedures. For safest use and optimum performance, proper practices must be followed.

(MXMP608AL)

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