

PRODUCT BULLETIN

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**ALLIED
MINERAL**
PRODUCTS, INC.

MATRICAST 2500AC

General Information

MATRICAST 2500AC is a high strength refractory castable designed for use in the subhearth of aluminum melting and holding equipment. A non-wetting additive provides for resistance to aluminum penetration. MATRICAST 2500AC offers the following benefits and features:

- > Thermal shock resistance
- > Excellent non-wetting properties

Technical Data

Chemical Analysis

(Major Components)

Al ₂ O ₃	45.3%
SiO ₂	39.7%
CaO	9.7%
Fe ₂ O ₃	2.9%

Material Required.....	127 lbs. per cubic foot (2.03 g/cm ³)
Grain Size.....	4 mesh (4.75 mm) and finer
Maximum Use Temperature.....	2500°F (1370°C)
Installation	Casting/Vibration

Packaged in 55-lb. (25 kg) multi-wall paper bags protected with stretch wrap. Also available in bulk packaging. Storage beyond 24 months is not recommended. Store in a dry location to avoid moisture pickup.

Hydraulic Set

Water Required:	3.25 quarts/55 pounds (12.25%)
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 the metals industry. For more information or a complete evaluation of your refractory requirements, please contact your local Allied representative.

Warning: Contains aluminum oxide, aluminum silicates, 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.

(MXMC2500AC)

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Laboratory Test Bar Data

MATRICAST 2500AC

<u>Permanent Linear Change</u>	<u>%</u>
After heating to:	
230°F (110°C)	-0.10
2000°F (1095°C)	-0.30
2500°F (1370°C)	0.90

<u>Density</u>	<u>pcf</u>	<u>g/cm³</u>	<u>kg/m³</u>
After heating to:			
230°F (110°C)	130	2.09	2090
2000°F (1095°C)	127	2.04	2040
2500°F (1370°C)	127	2.04	2040

<u>Modulus of Rupture</u>	<u>psi</u>	<u>MPa</u>	<u>kg/cm²</u>
After heating to:			
230°F (110°C)	1530	9.31	94.9
2000°F (1095°C)	1410	9.72	99.2
2500°F (1370°C)	1550	10.69	109.0

<u>Cold Crushing Strength</u>	<u>psi</u>	<u>MPa</u>	<u>kg/cm²</u>
At: 230°F (110°C)	5000	34.48	351.6
2000°F (1095°C)	5250	36.20	369.2
2500°F (1370°C)	5420	37.37	381.2



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