

# PRODUCT BULLETIN

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**ALLIED  
MINERAL**  
PRODUCTS, INC.

## GROUT 163ACF

### General Information

GROUT 163ACF is a tabular alumina-based, refractory trowelling mix recommended for application to the inside face of coreless induction furnace coils. What makes this product unique from our traditional grouting products, such as Grout 663A or Grout 563A, is the addition of ceramic fibers. This design allows for improved mechanical behavior of this refractory body by deflecting and minimizing macrocrack propagation. This product offers the following features and benefits:

- > Excellent trowelling properties
- > Reduced slumping during tapering applications
- > Micro-toughening fibers for crack resistance and deflection

### Technical Data

#### Chemical Analysis

(Major Components)	
Al <sub>2</sub> O <sub>3</sub>	91.0%
CaO	5.3%
SiO <sub>2</sub>	3.1%
Fe <sub>2</sub> O <sub>3</sub>	0.2%

Material Required .....	2.51g/cm <sup>3</sup> (160 lb./ft. <sup>3</sup> )
Grain Size .....	2 mm (10 mesh) and finer
Installation Method .....	Trowel
Procedure (Heat-up) .....	CL-37

Packaged in 25 kg (55 lb.) multi-wall paper bags. Palletized 64 bags (1600 kg or 3520 lb.) per 42" x 42" pallet protected with stretch wrap. Storage beyond 12 months is not recommended. Store in a dry location to avoid moisture pickup.

### Hydraulic Set and Casting Data

Water Required:	16 - 18%
Working Time:	Up to 30 minutes
Initial Set:	1-4 hours
Final Set:	2-6 hours

Allied Mineral Products, Inc. supplies a complete line of monolithic refractories for melting and holding all types of metals in channel and coreless induction furnaces. For more information or a complete evaluation of your refractory requirements, please contact your local Allied representative.

**Warning:** Contains aluminum oxide, aluminosilicates, calcium aluminate 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. Hydrogen gas may be generated when product is exposed to water. Proper ventilation should be supplied to avoid gas buildup. Avoid use of enclosed forms. Ignition of hydrogen gas in an enclosed area can lead to personal injury. 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 for products that are installed wet. 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.

Issue 1/10/06  
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# LABORATORY TEST BAR DATA

## GROUT 163ACF

		<b>Grout 163ACF</b>		
<b><u>Permanent Linear Change</u></b>		<b><u>%</u></b>		
After heating to:				
315°C ( 600°F)		-0.40		
540°C (1000°F)		-0.15		
760°C (1400°F)		-0.23		
<b><u>Modulus of Rupture</u></b>		<b><u>MPa</u></b>	<b><u>kg/cm<sup>2</sup></u></b>	<b><u>psi</u></b>
After heating to:				
315°C ( 600°F)		3.9	39.9	568
540°C (1000°F)		4.9	49.5	704
760°C (1400°F)		3.3	34.0	483



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