



Product Data

2/09: 2830

VERSAFLOW® 60 PLUS

Technical Data:

Physical Properties: (Typical)

Maximum Service Temperature

English
Units

SI
Units

English
Units

SI
Units

3100°F

1705°C

3100°F

1705°C

Dry Weight Required for Casting

$\frac{\text{lb}}{\text{ft}^3}$
152

$\frac{\text{g}}{\text{cm}^3}$
2.43

$\frac{\text{lb}}{\text{ft}^3}$
148

$\frac{\text{g}}{\text{cm}^3}$
2.37

Approximate Amount of Water Required
Per 55 Lbs.
Per 24.95 Kg.

2¼ to 3 U.S. Pints

1.30 to 1.42 Liters

3¼ to 3½ U.S. Pints

1.54 to 1.66 Liters

Bulk Density

After Drying at 230°F (110°C)

$\frac{\text{lb}}{\text{ft}^3}$
153

$\frac{\text{g}}{\text{cm}^3}$
2.45

$\frac{\text{lb}}{\text{ft}^3}$
150

$\frac{\text{g}}{\text{cm}^3}$
2.40

Modulus of Rupture

After Drying at 230°F (110°C)

After Heating at 1500°F (816°C)

At 2500°F (1371°C)

$\frac{\text{lb}}{\text{in}^2}$
1,800
2,800
600

MPa
12.4
19.3
4.1

$\frac{\text{lb}}{\text{in}^2}$
1,600
2,500
600

MPa
11.0
17.2
4.1

Crushing Strength

After Drying at 230°F (110°C)

After Heating at 1500°F (816°C)

After Heating at 3000°F (1650°C)

17,000
13,000
16,000

117.2
89.7
110.3

15,000
9,000
-

103.4
62.1
-

Permanent Linear Change

After Drying at 230°F (110°C)

After Heating at 1500°F (816°C)

After Heating at 3000°F (1650°C)

Negligible
-0.2 %
-1.0 %

Negligible
-0.2 %
-1.5 %

Chemical Analysis: (Approximate) (Calcined Basis)

Silica	(SiO ₂)	36.2 %
Alumina	(Al ₂ O ₃)	59.1
Titania	(TiO ₂)	1.8
Iron Oxide	(Fe ₂ O ₃)	1.0
Lime	(CaO)	1.6
Magnesia	(MgO)	0.1
Alkalies	(Na ₂ O+K ₂ O)	0.2

(Continued)



Product Data

VERSAFLOW® 60 PLUS (Continued)

The test data shown are based on average results on production samples and are subject to normal variation on individual tests. The test data cannot be taken as minimum or maximum values for specification purposes. ASTM test procedures used when applicable.

Description:

A 60% Alumina low cement castable based on Alabama bauxitic calcines which can be installed in several ways - from vibcast consistency to pump casting techniques.

Features:

- Excellent abrasion resistance.
- High hot strengths at 2500°F (1371°C).
- High refractoriness.
- Service temperature limit of 3100°F (1705°C).
- Installation versatility enables material to be vibcast, conventionally cast or pumped with slight adjustment to water content.

Uses:

- Iron and Steel Foundries - Replacing brick, plastics and other castables in foundry ladles, Forge furnace car decks.
- Ceramic Kilns - Car decks exposed to high temperatures and thermal cycling.
- Aluminum Furnaces - Upper sidewalls and roofs.
- Steel Industry - Ladle covers, tundish covers, tundish safety lining and precast shapes for tundishes.
- Rotary Kilns - Nose rings, lifters, firing hoods, coolers and pre-heater maintenance.
- Incineration - Charging zones, burners, rotary kilns.

WARNING:

IF PROPER PROCEDURES FOR PREPARATION, APPLICATION, AND HEAT-UP OF THIS MATERIAL ARE NOT OBSERVED, STEAM SPALLING DURING HEAT-UP MAY OCCUR.