



Product Data

1/06: 2830

VERSAFLOW® 60 PLUS

Technical Data:	VIBCASTING		CONV. CASTING/ PUMPING	
	English Units	SI Units	English Units	SI Units
<u>Physical Properties: (Typical)</u>				
Maximum Service Temperature	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.	2¾ to 3 U.S. Pints		3¼ to 3½ U.S. Pints	
Per 24.95 Kg.	1.30 to 1.42 Liters		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)	$\frac{\text{lb}}{\text{in}^2}$ 1,800	$\frac{\text{MPa}}{\text{MPa}}$ 12.4	$\frac{\text{lb}}{\text{in}^2}$ 1,600	$\frac{\text{MPa}}{\text{MPa}}$ 11.0
After Heating at 1500°F (816°C)	2,800	19.3	2,500	17.2
At 2500°F (1371°C)	600	4.1	600	4.1
Crushing Strength				
After Drying at 230°F (110°C)	17,000	117.2	15,000	103.4
After Heating at 1500°F (816°C)	13,000	89.7	9,000	62.1
After Heating at 3000°F (1650°C)	16,000	110.3	-	-
Permanent Linear Change				
After Drying at 230°F (110°C)		Negligible		Negligible
After Heating at 1500°F (816°C)		-0.2 %		-0.2 %
After Heating at 3000°F (1650°C)		-1.0 %		-1.5 %
<u>Chemical Analysis: (Approximate)</u> (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.