



Product Data

9/08: 2825

VERSAFLOW® 45 PLUS

	VIBCASTING		CONV. CASTING/ PUMPING	
<u>Technical Data:</u>				
	English Units	SI Units	English Units	SI Units
<u>Physical Properties: (Typical)</u>				
Maximum Service Temperature	2700°F	1482°C	2700°F	1482°C
Dry Weight Required for Casting	$\frac{\text{lb}}{\text{ft}^3}$ 136	$\frac{\text{g}}{\text{cm}^3}$ 2.18	$\frac{\text{lb}}{\text{ft}^3}$ 132	$\frac{\text{g}}{\text{cm}^3}$ 2.11
Approximate Amount of Water Required				
Per 55 Lbs.	3¼ to 3½ U.S. Pints		3¼ to 4 U.S. Pints	
Per 24.95 Kg.	1.54 to 1.77 Liters		1.77 to 1.89 Liters	
Bulk Density				
After Drying at 230°F (110°C)	140	2.24	136	2.18
	$\frac{\text{lb}}{\text{in}^2}$	MPa	$\frac{\text{lb}}{\text{in}^2}$	MPa
Modulus of Rupture				
After Drying at 230°F (110°C)	1700	11.7	1050	7.2
After Heating at 1500°F (816°C)	1200	8.3	1200	8.3
At 2000°F (1093°C)	1780	12.3	-	-
Crushing Strength				
After Drying at 230°F (110°C)	10500	72.4	8500	58.6
After Heating at 1500°F (816°C)	6700	46.2	5000	34.5
Permanent Linear Change, %				
After Drying at 230°F (110°C)	Negligible		Negligible	
After Heating at 1500°F (816°C)	-0.3%		-0.2%	
After Heating at 2700°F (1482°C)	-0.2%		-0.2%	
<u>Chemical Analysis: (Approximate)</u> (Calcined Basis)				
Silica	(SiO ₂)		49.4%	
Alumina	(Al ₂ O ₃)		44.6	
Titania	(TiO ₂)		2.2	
Iron Oxide	(Fe ₂ O ₃)		0.7	
Lime	(CaO)		2.4	
Magnesia	(MgO)		0.2	
Alkalies	(Na ₂ O+K ₂ O)		0.5	

(Continued)





Product Data

VERSAFLOW® 45 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: Fireclay based low cement castable for use in high abrasion environments up to 2700°F (1482°C).

Features: Better abrasion resistance than conventional extra-strength castables or fireclay plastics.
Easy to install by vibcasting and conventional casting techniques. Can be pumped for large installations.
Service temperature limit of 2700°F (1482°C).
Good volume stability resulting in less shrinkage cracking in service.

Uses: Iron and Steel Foundries - Reheat furnaces, forge furnace car decks.
Minerals Processing Rotary Kilns - Lifters, feed-end and chain sections, cooler walls.
Chemical Processing Industry - Boiler applications, incineration (ash hoppers).
Aluminum - Flue caps, precast shapes for carbon bake furnaces, subhearth and lower sidewall back-up castable.

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

8/19/08 Dev.