

90-RAM® HS PLASTIC

Product Information Sheet

Monolithic Refractory

90-RAM® HS is a phosphate bonded extra high alumina refractory plastic that exhibits high strength at all temperature ranges. It also has excellent erosion, impact and abrasion resistance. This high green strength version eliminates the need for forming where anchors are present except for roof and arch construction.

Service Temperature: 3200 °F **Material Required:** 192 lb/ft³
Typical Water Required: - **Maximum Grain Size:** -
Abrasion Resistance C-704, 4.5 cc
(Loss - Fired to 1500°F):

Chemical Analysis

SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	Na ₂ O + K ₂ O	P ₂ O ₅	Other		
2.35-2.85	92.2-94.4	0-0.4	0.1-0.5	3.15-3.65	0-0.4		

Typical Physical Properties

Tested in accordance with International and ASTM Standards

Prefired to	Bulk Density	Cold Crushing Strength	Cold Modulus of Rupture	Permanent Linear Change
(°F)	(lb/ft ³)	(psi)	(psi)	(%)
230	180	-	1080	-
1000	-	-	-	-0.6
1500	176	9250	2550	-0.3
2500	-	-	2675	-0.6
3000	-	-	2730	-

Other Physical Properties

Tested in accordance with International and ASTM Standards

Prefired to	Apparent Porosity	Thermal Conductivity	Hot Modulus of Rupture	Permanent Volume Change
(°F)	(%)	(Btu.in/h.ft ² .F)	(psi)	(%)
230	-	19.8	-	-
1000	-	15.6	-	-
1500	-	14.9	-	-

Formerly: 90-RAM® HS; 90-RAM® HS UK; 90-RAM® HS EXPORT

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The physical and/or chemical properties and specifications of the product set forth above represent typical average results obtained in accordance with generally accepted standard test methods conducted under controlled conditions, and are subject to normal manufacturing variations. Vesuvius reserves the right to modify the properties and specifications at any time without prior notice.



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