

Datasheet - Vulcasil A High Alumina Refractories

VULCASIL A

An extensive range of high quality refractory materials with Alumina contents from 50 to 99.5%. Designed for a wide range of applications.

From kiln furniture to furnace linings, normal to special atmospheres Vulcan Refractories work with the world's most exacting customers to provide quality refractory materials in a wide variety of shapes and sizes.



Property	Typical							Units	Method
	Vulcasil A50	Vulcasil A60	Vulcasil A75	Vulcasil A80	Vulcasil A84P	Vulcasil A90	Vulcasil A99		
Bulk density	2.2	2.2	2.6	2.5	2.7	3.0	3.0	g/cm ³	ASTM C20
Apparent porosity	22	20	16	21	18	15	21	%	ASTM C20
Cold crushing strength	55	100	70	70		70		MPa	ASTM C133
Thermal conductivity at 1200°C	1.7	2.0	2.3	2.5	2.5	3.2	3.0	W/m°C	ASTM E1461
Maximum Service Temperature	1550	1450	1750	1750	1750	1750	1800	°C	ASTM E1461
Composition									
Al ₂ O ₃	52	58	76	79	84	90	99.5	Wt.%	XRF
SiO ₂	46	39	22	20	14	9	0.05		
P ₂ O ₅	-	-	-	-	1	-	-		
Other	2	3	2	1	1	1	0.4		

Disclaimer: Any advice, opinion, recommendation or information is given to assist the use of the company's products. **The end user must ensure the suitability of the product for their specific application.** In particular the company cannot accept liability for loss or damage which may arise from the incorrect use of its products or from poor workmanship on the part of the user. Please refer to Vulcan terms and conditions for full terms.



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Vulcasil A 50

An aluminosilicate material with low iron content. Resistant to carbon monoxide and alkali vapours with excellent volume stability. Ideal for combustion chamber linings and kiln construction.



Vulcasil A 60

An alumina-molochite material with good thermal shock and resistance to molten steel. Ideal for special shapes and superalloy applications.

Vulcasil A75 and A80

Fused mullite based with high purity, excellent hot strength and good resistance to thermal shock and chemical attack. Applications include high temperature kiln construction, kiln furniture, saggars, batts, trays, tiles, burner blocks and linings for combustion chambers.

Vulcasil A84P

A phosphate bonded composite of alumina and mullite with excellent abrasion resistance and improved thermal shock resistance whilst maintaining material strength at high temperatures. Ideal for aluminium furnace applications.

Vulcasil A90

High purity 90% alumina material with excellent hot strength stability with good thermal shock resistance and resistance to chemical attack. For use as kiln furniture, batts, saggars, tiles, trays, nozzles, crucibles, furnace spouts and muffles.

Vulcasil A99

A 99.5% alumina dense refractory material with excellent refractoriness, purity and resistance to chemicals. Applications include hot face linings in hydrogen atmospheres where purity is essential.

