



# Vulcasil H

A range of materials with alumina content between 50% and 99.5%, capable of operating in temperatures up to 1750°C and offering good hot strength, resistance to chemical attack and thermal shock. Available as both pressed and cast materials.

## VULCASIL H - HIGH ALUMINA (50% to 99.5%)

Product Reference	Description	Chemical Analysis %			Bulk Density g/cm <sup>3</sup>
		Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Other	
		Wt %	Wt %	Wt %	
HRP22	A high purity 52% alumina with low iron content. Resistant to carbon monoxide and alkali vapours, with excellent volume stability.	52	46	2	2.2
HTC01	A sillimanite material with good resistance to corrosion and thermal shock.	59	40	1	2.0
HRC03	A fused mullite material of high purity, good hot strength, with good resistance to thermal shock and chemical attack.	77	23	<0.5	2.5
HRP34		79	21	<0.5	2.7
HRP59		79	21	<0.5	2.7
HRP65		79	21	<0.5	-
HRP17	A phosphate bonded bauxite with excellent resistance to abrasion and molten metals.	84	10	6	2.8
HRC01	A 90% alumina of high purity. Excellent hot strength stability, resistance to chemical attack and good thermal shock resistance.	91	9	<1	2.8
HSC01		88	11	<1	2.8

Product Reference	Apparent Porosity	Cold Crushing Strength	Thermal Conductivity @1200 C	Maximum Service Temperature	Typical applications	Comments
	%	MPa	W/m <sup>2</sup> K	°C		
HRP22	22	55	1.7	1550	Combustion chamber linings and ceramic kiln construction.	Pressed
HTC01	18	65	1.8	1550	Tundishes, nozzles, launder sections, distribution boxes, pancheons and sample cups for superalloy industry.	Cast
HRC03	20	35	2.2	1650	High temperature kiln construction and kiln furniture, saggars, batts, trays, tiles, burner blocks, linings of combustion chambers and carbon black reactors.	Cast
HRP34	20	-	2.3	1750		Pressed - Coarse
HRP59	16	-	2.3	1750		Pressed
HRP65	-	-	2.3	1750		Pressed - Fine
HRP17	22	100	2.8	1650	Skid rails, walking beam furnace blocks, aluminium melting furnace linings.	Pressed
HRC01	20	-	3.1	1700	Kiln furniture, batts, saggars, tiles, trays, nozzles, crucibles, furnace spouts, muffles.	Cast
HSC01	20	-	3.1	1750		Cast - Fine

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		Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Other	
		Wt %	Wt %	Wt %	
HRP52	An alumina-molochite material, with good thermal shock and resistance to molton metal.	58	39	3	2.4
HTC03	A 90% alumina of high purity. Excellent hot strength stability, resistance to chemical attack and good thermal shock resistance.	90	9	<1	3.0
HRP47		90	8	<1	2.9
HRP48		90	9	<1	3.0
HRP58		90	9	<1	3.0
HRP33		A family of 99% alumina material offering excellent refractoriness, purity and resistance to chemicals.	99.5	0.05	0.4
HRP80	99.5		0.05	0.4	3.0
HRP83	99.5		0.05	0.4	3.0
HRC17	99.1		0.1	0.8	2.95

Product Reference	Apparent Porosity	Cold Crushing Strength	Thermal Conductivity @1200 C	Maximum Service Temperature	Typical applications	Comments
	%	MPa	W/m <sup>2</sup> K	°C		
HRP52	20	-	-	1450	Special shapes for general kiln construction and super alloy contact applications.	Pressed
HTC03	15	80	3.2	1750	Kiln furniture, batts, saggars, tiles, trays, nozzles, crucibles, furnace spouts, muffles.	Cast
HRP47	18	90	3.2	1750		Pressed
HRP48	18	90	3.2	1750		Pressed - Coarse
HRP58	18	90	3.2	1750		Pressed - Fine
HRP33	20	-	3	1800		Hot face linings and kiln furniture operating in a hydrogen atmosphere.
HRP80	21	-	3	1800	Hot face linings and kiln furniture operating in a hydrogen atmosphere or when purity is essential.	Pressed
HRP83	21	-	3	1800	Hot face linings and kiln furniture operating in a hydrogen atmosphere or when purity is essential.	Pressed
HRC17	22	50	2.8	1750	Hot face linings for acidic or reducing environments.	Cast