



# MOLOCHITE™

Molochite is the calcined kaolin for the investment casting, the kiln furniture and general refractories industries. It is a quartz free, cristobalite free and nodular iron free material.

CHEMICAL ANALYSIS (%)	TYPICAL VALUE	SPECIFICATIONS	
		MIN	MAX
Al <sub>2</sub> O <sub>3</sub>	42.0	40.5	43.5
K <sub>2</sub> O	2.0	1.8	2.2
SiO <sub>2</sub>	54.0		
TiO <sub>2</sub>	0.07		
CaO	0.07		
MgO	0.30		
Fe <sub>2</sub> O <sub>3</sub>	1.30		

  

PHYSICAL PROPERTIES	
Specific gravity	2.70
Porosity (vol %)	10
Hardness (Mohs)	7 - 8

  

MINERALOGICAL COMPOSITION BY X-RAY DIFFRACTION	
Mullite (mass %)	55
Amorphous material (mass %)	45

  

REFRACTORINESS (° C)	
Initial deformation	1750 - 1770
Squatting	> 1770

  

THERMAL EXPANSION	
Coefficient of expansion, 20-1000°C [°C <sup>-1</sup> ]	4.4 x 10 <sup>-6</sup>

  

MAGNETICS [ppm]	
Coarse grades	160
Intermediate grades	250
Milled grades	120
GL Grades	50

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IMERYS REFRACTORY MINERALS  
Parkandillick Calciner - St. Dennis - St. Austell - Cornwall - PL26 8DY, UK

Tel: +44(0) 1726 878850  
Fax: +44(0) 1726 811200  
E. Mail: molochite@imerys.com



[www.imerys-refractoryminerals.com](http://www.imerys-refractoryminerals.com)



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## RANGE

PRODUCTS		COARSE GRADES						INTERMEDIATE GRADES						MILLED GRADES				
		1/4 - 8	8 - 16	- 8	16 - 30	16 -30 DD	18 - 36 DD	22 - 60 DD	- 22	30 - 80 DD	- 30	50 - 80 DD	- 80	- 120	- 200/- 200 GL	- 325		
METRIC EQUIVALENT mm	BBS MESH	2,00 to 6,70	1,00 to 2,00	0 to 2,00	0,5 to 1,00	0,5 to 1,00	0,425 to 0,85	0,25 to 0,71	0 to 0,71	0,18 to 0,50	0 to 0,50	0,18 to 0,30	0 to 0,18	0 to 0,125	0 to 0,075	0 to 0,053		
9,5	-																	
6,70	1/4	100 99,75	<b>100</b>															
4,75	3 1/2																	
4,00	4	96 52	<b>76</b>															
2,80	6		100 99,75	100 99,75	<b>100</b>													
2,00	8	16 0	5 10	99 100	98 85													
1,70	10	0	2	91														
1,18	14				100 99	100 100	100 100											
1,00	16	3 0	0	15 5	94 51	76 80	76 87	100 80	100 99,75	100 99,75	100 100							
0,85	18							97 100	98 100	98 100	91 100	100 100						
0,71	22		2 0	0	64 20	41 15	41 5	68 14	100 98	100 86	91 92	100 100	100 99					
0,50	30			61 14	31	6	5	5	76	65	65	99	97					
0,355	44					1	1	1	30	45	51	71	100					
0,300	52												98 100					
0,250	60			40 3	15	0	0	0,25 0	13 0	60 17	31	6	48	70	100	100		
0,180	85								2	1	1	1	5	84				
0,150	100			29 0	8	0,25 0	0,25 0		0,25 0	37 6	16	1	24	1		98		
0,125	120												73 39 39	52				
0,075	200			17 0	2				16 2	5		18 4	8	21	85	97		
0,053	300														78 66	94 90	98 95	96
0,020																33	48	59
0,010																20	29	36
0,002																		

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Maximum X X Where no maximum and minimum values are shown, then Mean Value is indicative only.  
 Minimum X