



# Uniceram Advanced Materials, Inc.

## INSULATING CASTABLE SPECIFICATIONS

	UAC LITE 11LI	UAC LITE 13LI	UAC LITE 15LI	UAC LITE 97L	UAC LITE 11LI(Z)	UAC LITE 11SPL
<b>General Properties</b>						
Maximum Service Temp. °C (°F)	1350 (2450)	1350 (2450)	1350 (2450)	1800 (3270)	1300 (2370)	1350 (2450)
Maximum Grain Size (mm)	6	6	6	6	6	6
Water addition on site %	35-40	35-40	25-30	20-25	40-45	30-35
Reversible Thermal Expansion % at 1000°C.	0.60	0.60	0.60	0.80	0.60	0.60
<b>Physical Properties</b>						
Refractoriness (°C) / Orton min.	1398/14	1430/15	1430/15	1835/38	1398/14	1398/14
Dry Density (Kg/m <sup>3</sup> ) min at 110° C	1250	1450	1600	1650	1000	1100
Cold Crushing Strength (Kg/cm <sup>2</sup> ) min at						
110°C / 24 hrs	45	80	130	70	10	30
800°C / 3 hrs	30	40	75	60	5	25
1100°C / 3 hrs	30	40	75	40	6	25
1300°C / 3 hrs	50	40	90	-	35	35
1550°C / 3 hrs	-	-	-	60	-	-
Thermal Conductivity ( KCal/m/hr/°C) 500°C Hot Face	0.34	0.40	0.44	1.10	0.22	0.30
P.L.C. % max. at						
800°C / 3 hrs	-	-	±0.20	±0.10	-	-
1100°C / 3 hrs	±0.20	±0.20	±0.50	±0.20	±1.00	±0.20
1300°C / 3 hrs	±1.00	±0.60	±1.00	-	±1.50	±1.00
1550°C / 3 hrs	-	-	-	±1.20	-	-
<b>Chemical Analysis</b>						
Al <sub>2</sub> O <sub>3</sub> (%) min.	45.00	44.00	45.00	95.00	45.00	41.00
Fe <sub>2</sub> O <sub>3</sub> (%) max	1.50	1.50	1.50	0.30	1.20	1.50

The above values are from test samples and should be only used for guidance.

**We can also provide highly customized products, made to the end-user's specifications or application.**

Nature of Bond : Hydraulic  
Installation : Rodding / Tamping  
Storage Life : 6 Months



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## INSULATING CASTABLE SPECIFICATIONS ..... Continued

	UAC LITE 9 HS	UAC LITE LT	UAC LITE POURABLE	UAC LITE HT	UAC LITE 8S	UAC LITE 10S
<b>General Properties</b>						
Maximum Service Temp. °C (°F)	1100 (2000)	500 (900)	900 (1650)	1500 (2700)	1300 (2370)	1100 (2000)
Maximum Grain Size (mm)	6	6	6	6	6	6
Water addition on site %	38-45	25-30	60-70	25-35	45-50	45-50
Reversible Thermal Expansion % at 1000°C.	0.57	0.50	0.60	0.60	0.57	0.55
<b>Physical Properties</b>						
Refractoriness (°C) / Orton min.	1398/14	-	-	1605/23	1430/15	1349/13
Dry Density (Kg/m <sup>3</sup> ) min at 110°C	1000	1400	700	1550	900	1100
Cold Crushing Strength (Kg/cm <sup>2</sup> ) min at						
110°C / 24 hrs	20	90	15	80	25	20
800°C / 3 hrs	10	45(500°C)	12	40	20	15
1100°C / 3 hrs	-	-	-	40	-	12(1200°C)
1300°C / 3 hrs	16	-	-	50	30	-
Thermal Conductivity (KCal/m/hr/°C) 500°C Hot Face	0.28	0.40	0.22	0.42	0.20	0.22
P.L.C. % max. at						
500°C / 3 hrs	-	±0.50	-	-	-	-
800°C / 3 hrs	-	-	±1.50	-	±0.30	±0.80
1100°C / 3 hrs	±1.50	-	-	±0.50	±0.50	-
1200°C / 3 hrs	-	-	-	-	-	±1.20
1300°C / 3 hrs	-	-	-	±1.50	±1.00	-
<b>Chemical Analysis</b>						
Al <sub>2</sub> O <sub>3</sub> (%) min.	40.00	24.00	20.00	63.00	40.00	30.00
Fe <sub>2</sub> O <sub>3</sub> (%) max	3.00	2.50	9.00	1.40	1.00	6.00

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Nature of Bond : Hydraulic  
 Installation : Rodding / Tamping  
 Storage Life : 6 Months  
 Delivery State : Dry



# Uniceram Advanced Materials, Inc.

## INSULATING CASTABLE SPECIFICATIONS..... Continued

	UAC LITE 4	UAC LITE 7	UAC LITE 9	UAC LITE 11	UAC LITE 13	UAC LITE 15
<b>General Properties</b>						
Maximum Service Temp. °C (°F)	1000 (1800)	1100 (2000)	1100 (2000)	1350 (2450)	1350 (2450)	1350 (2450)
Maximum Grain Size (mm)	6	6	6	6	6	6
Water addition on site %	100-110	70-80	55-60	35-40	30-35	30-35
Reversible Thermal Expansion % at 1000°C.	0.55	0.57	0.57	0.57	0.60	0.60
<b>Physical Properties</b>						
Refractoriness (°C) / Orton min	-	1337/12	1398/14	1398/14	1398/14	1530/15
Dry Density (Kg/m <sup>3</sup> ) min at 110° C	500	850	1000	1250	1450	1600
Cold Crushing Strength (Kg/cm <sup>2</sup> ) min at						
110°C /24 hrs	2	12	15	35	50	90
800°C / 3 hrs	1	4	6	25	30	60
1000°C / 3 hrs	-	6	10	25	30	60
1300°C / 3 hrs	-	-	-	40	50	70
Thermal Conductivity( KCal/m/hr/°C) 500°C Hot Face	0.10	0.14	0.28	0.31	0.33	0.44
P.L.C. % max. at						
500°C / 3 hrs	-	-	±0.20	-	-	-
800°C / 3 hrs	±0.50	±1.00	±0.60	-	-	-
1100°C / 3 hrs	-	±1.60	±1.00	±0.20	±0.20	±0.20
1300°C / 3 hrs	-	-	-	±1.00	±0.60	±0.60
<b>Chemical Analysis</b>						
Al <sub>2</sub> O <sub>3</sub> (%) min.	30.00	33.00	33.00	34.00	39.00	40.00
Fe <sub>2</sub> O <sub>3</sub> (%) max	11.00	8.50	6.00	3.50	3.50	3.20

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Nature of Bond : Hydraulic  
 Installation : Rodding / Tamping  
 Storage Life : 6 Months  
 Delivery State : Dry