

APPENDIX 3. CRITERIA USED IN EVALUATING LIGHTWEIGHT AGGREGATE CLAY

	Rotary Kiln Process	Sintering Process
Unfired Properties		
Drying characteristics	Dry readily and show only slight disintegration	Not critical, water used to pelletize before firing
Dry strength	Strength must be sufficient for proper sizing when crushed for kiln feed	Not critical
Crushing characteristics	8 mesh material should not exceed 20%	Not critical except where particles tend to be thin and platy
Fired Properties		
Firing range	1800-2200°F	Vitreous and glazes between 2200 and 2300°F
Bloating range	Minimum 100°F 200°F preferred	Not critical
Weight	75-45 lb/ft	
Expansion	Gradual weight decrease through bloating range	Slight
Absorption %	0-18 at best bloating temperature	0-6
Colour	Light red to light grey preferred, although colour not too critical	Light red grey, red, although colour not too critical
Strength	Determined by concrete performance test	Determined by concrete performance test