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Castable Design

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Refractory Design Basics

Temperature

Chemical environment

Physical conditions

Thermal conductivity



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Type of material

Mortar

Mouldable/Ramming

Taphole Clay

Dry vibratable

Castable



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Composition of a LC Castable

Coarse aggregate

Fine aggregate

Binder

Matrix

Calcined alumina

Volatilised silica

Rheology and setting modifiers

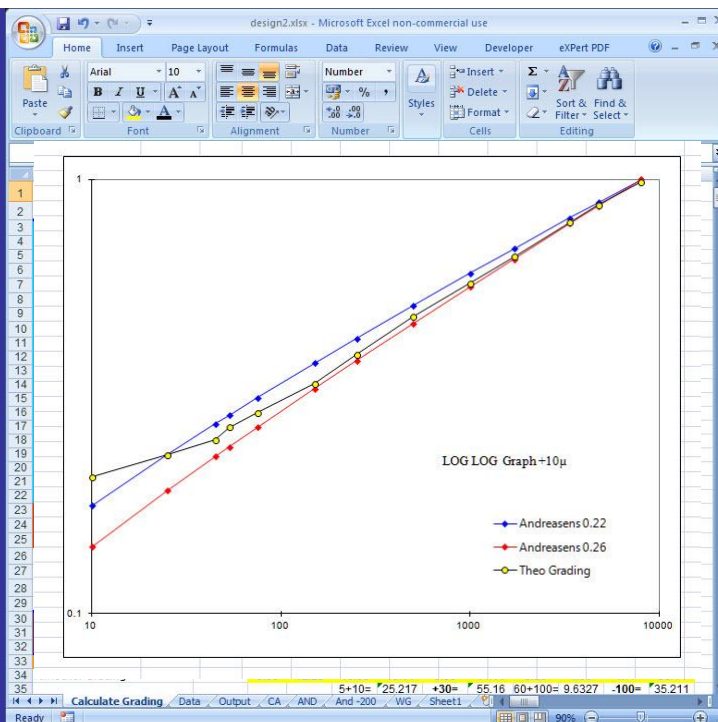


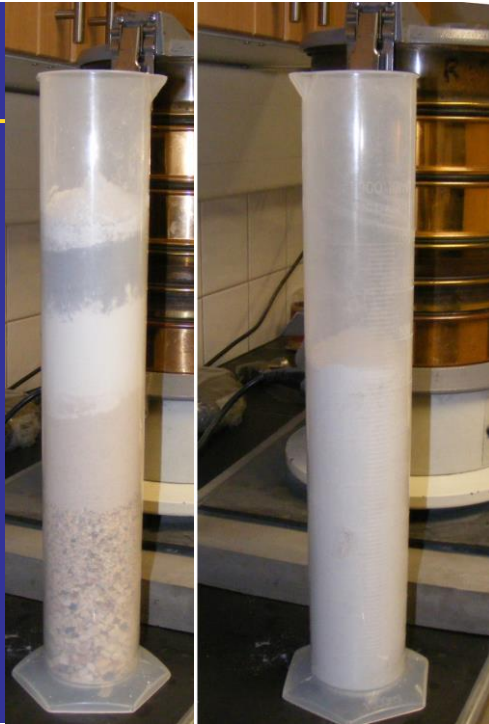
Particle size distribution

Andreassens equation
$$CPTF = \frac{(d^q - d_{min}^q)}{(D_{max}^q - d_{min}^q)}$$

microns retained

8000	0.0%
4750	11.6%
3350	7.0%
1700	12.2%
1000	8.4%
500	9.6%
250	8.2%
50	5.3%
75	6.3%
53	2.8%
pan	28.6%





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