

Chemical Composition of Spray/Gunning Castables						
Alumina Class	50	60	65	80	90	95
Al ₂ O ₃	48.8	58.8	63.5	80.7	91.5	93.9
SiO ₂	46.4	36.1	31.7	13.0	4.3	4.3
TiO ₂	1.4	1.7	1.4	2.7	1.2	–
Fe ₂ O ₃	0.8	0.9	0.8	1.0	0.5	0.1
CaO	2.1	2.1	2.1	2.0	2.1	1.4
Physical Properties of Spray/Gunning Castables						
Alumina Class	50	60	65	80	90	95
Apparent Porosity, % After firing to 815°C	18.0	15.2	18.5	19.0	19.7	17.0
Cold MOR, kg/cm ² , After firing to						
110°C	85	82	107	89	112	109
815°C	92	127	129	118	118	173
1100°C	118	116	143	127	80	109
1370°C	74	106	120	81	63	106
1600°C	130	198	145	130	75	74
Cold crushing strength, kg/cm ² After firing to						
110°C	130	165	338	366	350	278
815°C	151	211	278	458	472	401
1100°C	278	207	304	371	294	525
1370°C	236	218	421	405	359	535
1600°C	267	324	670	658	621	74
Permanent linear change, % After firing to						
1370°C	+0.6	+0.6	+0.1	+1.3	+0.1	+0.1
1600°C	+0.1	-0.1	+0.2	-1.3	+0.8	+0.8

Source: UNITECR '97 Proceedings.