

## White Portland Cement Product Quality

Item	Unit	Specification		ITP Quality Range	
		SNI	EN 197-1:2011		
		15-0129-2004	52.5 N		
<b>PHYSICAL PROPERTIES</b>					
1.	Air Content of Mortar, Volume	%			4.0 - 8.0
2.	Fineness, Specific surface	m <sup>2</sup> /kg	≥ 280		380 - 420
3.	Autoclave Expansion	%	≤ 0.80		0.05 - 0.20
4.	Soundness	mm		≤ 10	0.1 - 0.6
5.	Whiteness (Kett C-1)	%	≥ 80		81.5 - 83.0
	Whiteness (Hunter Scale)				91.0 - 93.0
6.	Compressive Strength (SNI)				
	- 3 days	kg/cm <sup>2</sup>	≥ 180		190 - 230
	- 7 days	kg/cm <sup>2</sup>	≥ 250		270 - 320
	- 28 days	kg/cm <sup>2</sup>	≥ 350		390 - 440
7.	Compressive Strength (EN 197)				
	- 2 days	MPa		≥ 20.0	20.5 - 25.0
	- 28 days	MPa		≥ 52,5	52.5 - 55.0
7.	Setting Time (vicat)				
	- Initial	minutes	≥ 45	≥ 45	90 - 140
	- Final	minutes	≤ 375		190 - 230
8.	False set	%	≥ 50		55 - 75
<b>CHEMICAL PROPERTIES</b>					
1.	Fe <sub>2</sub> O <sub>3</sub>	%	≤ 0.4		0.2 - 0.4
2.	MgO	%	≤ 5.0		1.7 - 3.5
3.	SO <sub>3</sub>	%	≤ 3.5	≤ 4,0	1.9 - 2.4
4.	Loss on Ignition	%	≤ 5.0	≤ 5.0	3.0 - 4.5
5.	Insoluble Residue	%	≤ 3.0	≤ 5.0	0.2 - 0.8
6.	Total Alkali (Na <sub>2</sub> O+0,658 K <sub>2</sub> O)	%	≤ 0.60		0.2 - 0.4
7.	Chloride	%		≤ 0.10	0.001 - 0.01