

# BUA DAENG Pro-work

## PORTLAND CEMENT TYPE I

**Bua Daeng Pro-work** Brand is a Portland cement type I manufactured in accordance with Thai Industrial Standard 15 vol. 1-2555 with corresponds to ASTM C 150 This brand of cement is general purpose construction work under normal environment condition suitable for all use in large - scale construction projects such as reinforced concrete building, bridges, concrete roads, runways, pre - stress concrete components and other concrete products etc.

### Mix proportioning for application

#### Lean concrete



#### General concrete structure



### Specifications for Portland Cement Type 1

Specifications		TIS 15-2555	ASTM C 150	Typical Bua daeng
<b>(Standard Chemical requirements)</b>				
Magnesium Oxide (MgO)	Max. %	6.0	6.0	4.0
Sulfur Trioxide (SO <sub>3</sub> ) When (C <sub>3</sub> A) is 8% or less	Max. %	3.0	3.0	-
When (C <sub>3</sub> A) is more than 8%	Max. %	3.5	3.5	3.2
Loss on ignition	Max. %	3.0	3.0	2.8
Insoluble residue	Max. %	0.75	0.75	0.50
<b>(Standard Physical requirements)</b>				
Blaine fineness (cm <sup>2</sup> / gm)	Min.	2800	2800	3200
Soundness (autoclave expansion)	Max. %	0.8	0.8	0.2
Time of setting (vicat test)				
Initial set	Min. Minute	45	45	80
Final set	Max. Minute	375	375	230
Air content of mortar by volume	Max. %	12	12	9
Compressive strength , MPa				
3 days	Min.	12.0	12.0	25.0
7 days	Min.	19.0	19.0	32.0
28 days	Min.	28.0	28.0	42.0
False set, Final penetration	Min. %	50	50	80

