

## Hydraulic Cement

For casting and for structural works  
Environmental Friendly Products



**Bua Daeng Hytech Brand** is a Portland composite cement, known also as Hydraulic cement, common type of cement in general use (GU). It is manufactured in accordance with the Thai Industrial Standards Institute's specification for Hydraulic cement, TIS 2594-2556 and the ASTM C 1157. Bua Daeng Hytech is made with eco-friendly materials and helps to reduce the carbon dioxide (CO<sub>2</sub>) emission in the atmosphere. However, the concrete properties of Bua Daeng Hytech are the same level as a Portland cement type I in term of strength and durability. In addition, by implementing innovation in manufacturing processes, water-reducing and strength enhancing admixtures are added to improve the quality of concrete. As a result, the concrete made with Bua Daeng Hytech has a rapid development in early strength and low level of shrinkage of concrete. Bua Daeng Hytech has been designed to meet the requirements of the current concrete users who need to complete their work faster with superior durability of concrete.

### Mix proportioning for application

#### Lean Concrete



#### General Concrete Structure



Remark : Mixing proportions may be changed as appropriate for the job. And properties of concrete mixes as recommended by engineers.

### Technical Data of Hydraulic Cement Type General Use (GU) ASTM C 1157

Specifications	TIS. 2594-2556	Typical Bua Daeng
Standard physical Requirement	Type GU	Hytech Brand
Autoclave Expansion , %	max. 0.80	0.00
<b>Time of Setting , Minute</b>		
Initial Set	min. 45.0	100
Final Set	max. 420.0	220
<b>Compressive Strength , MPa</b>		
1 Day	-	14.0
3 Days	min. 13.0	26.0
7 Days	min. 20.0	35.0
28 Days	min. 28.0	45.0
Mortar Expansion @ 14 Days %	max. 0.02	0.01
False set, Final penetration , %*	min. 50.0	85.0
Air Content of Mortar , %**	-	9.30
Blaine Fineness , cm <sup>2</sup> /g**	-	4,000
Residue on sieve No. 345 (45 μm) , %**	-	3.10

\* Optional requirement, \*\* Must be shown in test report

