# UNION ULTRA STRENGTH 50 (OPC)

- High strength cement, greatly suited for concrete applications
- Able to achieve compressive strength of up to 50 MPa after 28 days
- High workability, early compressive strength and consistency that exceeds both Philippine and international standards

#### **Summary of Test Results**

(CTC, SGS, DPWH)

Typical Compressive Strength (in Mpa)	PNS 07 Type 1	ASTM C150 Type 1	UNION ULTRA STRENGTH 50
3 Days	12.4 (min)	12 (min)	25.2 Mpa
7 Days	19.3 (min)	19 (min)	34.0 Mpa
28 Days	27.6 (min)	28 (min)	47.7 Mpa

## **Concrete performance using different admixture brands**

Compatible with different admixtures in the market.

@28D 3/4 PCD (in psi)	Cement Factor bags	7 days	14 days	15 days	28 days	Chemical Admixture
3000	7.17	3220		4090	4791	ADM 1A
3000	7.17	2373	3018		3329	ADM 2A
6000	12.03	6503		7219	8226	ADM 1B
6000	12.03	6791	7546		8074	ADM 2B/2A

### Concrete performance using different cement brands

Experience of ReadyMix Customer: "You can reduce cement factor and dosage of retarder."

#### **TRIAL MIX RESULT (JAN 2019)**

CUSTOMER	DESIGN STRENGTH 28D PCD (PSI)	7 DAYS			
NAME		DESIGN	ACTUAL	% ACTUAL	
TM1 (UNION, TYPE 1)	3000	2130	3475	116%	
TM1 (UNION, TYPE 1)	3000	2130	3917	131%	
TM1 (UNION, TYPE 1)	3000	2130	4002	133%	
TM1 (BRAND A, TYPE 1)	3000	2130	2802	93%	
TM1 (BRAND A, TYPE 1)	3000	2130	2576	86%	
TM1 (BRAND A, TYPE 1)	3000	2130	2742	91%	

